

LEGAL CONTROL OF INDUSTRIAL POLLUTION

THESIS SUBMITTED BY

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CERTIFICATE OF THE SUPERVISING TEACHER

Certified that to the best of my knowledge the thesis "Legal Control of Industrial Pollution" is the record of bonafide research work carried out by Mrs. Prasanna Joseph in the School of Legal Studies, Cochin University of Science and Technology under my supervision.



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DECLARATION

I hereby declare that the thesis: 'Legal Control of Industrial Pollution' is the record of original research work carried out by me and it has not previously been formed the basis for the award of any degree, diploma, associateship, fellowship or other similar title.

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P R E F A C E

Industrialisation involving large scale production was the result of scientific inventions and technological development in the modern age. It has ill effects in the form of assault on nature and immense pollution choking the planet. The ill effects have now surpassed nature's restorative potential and assimilative capacity. Control of pollution has become a challenge to law as well as other disciplines. Legal standards, prohibitions coupled with sanctions, expert evaluation of environmental impact, public participation in decision making, incentives for pollution control and aspects of socio-economic development are the areas which call for examination in this respect. An attempt is made in this thesis to assess control mechanisms for industrial pollution from a legal perspective.

This thesis is in five parts and eleven chapters.

Part I

This consists of three chapters, one dealing with sources and effects of industrial pollution. The second relates to sustainable development and general principle for control of pollution. The third chapter examines environmental perspectives in industrial policy and planning in India.

Part II

Statutory control of pollution is analysed in detail under two chapters. Chapter four consists of a constitutional and statutory perspective while chapter five examines the extent of general statutes bearing on environment.

Part III

This part deals with the role of judiciary in elevating environmental protection to a high pedestal. The part is in three chapters. Chapter six attempts to trace the application of common law remedies for control of pollution whereas chapter seven is a journey into the ebbs and flows in the judicial activism in the exercise of writ jurisdiction. Chapter eight analyses the judicial approach to the existing laws relating to industrial pollution and need for structural change, especially, establishment of courts.

Part IV

This part is in two chapters. Chapter nine deals with the use of incentives for the control of industrial pollution. Chapter ten pinpoints the important international measures for control of industrial pollution.

The work is concluded with effective suggestions for better control of industrial pollution.

Part V and Chapter 11 sums up the study with conclusions and suggestions.

Professor P. Leelakrishnan, School of Legal Studies, CUSAT is my Supervisor. I am extremely thankful to him for the sincere guidance and constant supervision in completing the research work.

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I would like to thank the typist who neatly typed this thesis. Last but not least I would like to thank all my friends and fellow Research Scholars for their sincere assistance. Special mention goes to my daughters Vindhya Joseph and Sindhu Joseph for their co-operation and sincere assistance in completing this work.

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P A R T I

CHAPTER I

INDUSTRIAL POLLUTION: SOURCES AND EFFECTS

Impact of Industries on Environment is great, starting from the siting of an industrial location to the disposal of waste.¹ The intensity of the problem is aggravated by the fact that natural environment is a dynamic, complex, fragile and little understood system and each part is interconnected by an almost infinite set of linkages with the other parts.² Any action which might disturb one part can, therefore, have far reaching effects which are not easy to predict beforehand or even sometimes to perceive until a long time later.

Types of Pollution

Industries are responsible for pollution of different types since pollutants are discharged into different mediums of the environment. Pollution caused thus are water pollution, air pollution and land pollution. Industrial pollution can again be classified on the basis of the nature of pollutants into waste pollution-solid or liquid, noise pollution and radio-active pollution.

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1. World Commission on Development and Environment, Our Common Future (Brundtland Report 1987) p.206.
 2. K.K.Mahajan, "Human Resource Management - Environmental Planning", in V.P.Agrawal and S.V.S.Rana, Science Development and Environment, (1987) p.59 at p.60.

Water Pollution

Water resources are the most exploited natural resource since man strode the earth.³ The first evidence of industrial pollution felt was the degradation of the quality of water by the industrial waste.⁴ Industrial effluents constitute one of the causes for polluting water and it can be caused directly or indirectly.⁵ Pollution affects not only surface water, it can

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3. K.V.Paliwal, "Pollution of surface and Ground Waters" in C.K.Varshney (Ed) Water Pollution and Management, (1983) p.36. Pollution of water can be caused by (1) atmospheric dissolved gases, (2) weathering of soil and rock materials, (3) decomposition of animal and vegetable materials, (4) industrial effluents, sewage and municipal wastes.
 4. S.N.Jain, Water (Prevention and Control of Pollution) Act, 1974: Basic Legal Issues in [1984] C.U.L.R. 139 at p.143. In the industrial towns the main cause for water pollution is industrial effluents and community waste from human settlement due to the unplanned development process. Out of India's 3119 towns and cities only 217 have partial (20%) or full (8) sewerage and sewage treatment.
 5. Ibid. Pollution caused is direct when effluents enter into a stream directly or through a municipal sewer. It is also caused indirectly when air pollutants come down with rain or the pesticides for agricultural use cause pollution when rain water washes it into the stream.

result in ground water pollution.⁶ The indiscriminate discharge of pollutants into water will affect the properties of water.⁷ Industries generally require large quantities of water in the manufacturing process. This invariably leads to location of industries at places near to rivers or streams, concentration of industries in such areas and ultimately heavy load of pollution in such rivers. Thus water, as a natural resource, gets affected both by discharge of effluents or dumping of waste as well as over extraction of water for industrial purposes.⁸ Pollutants make water toxic persistent and biologi-

6. Id., p.144. Ground water gets polluted either by the dumping of trade or sewage effluents into underground strata or due to seepage or percolation from the surface. World Development Report 1994 (Published for the World Bank (Oxford Press) 1992 p.47. The World Development Report identified seepage from the improper use and disposal of heavy metals, synthetic chemicals and other hazardous wastes as one of the principle origin of ground water pollution. Sometimes industrial effluents are discharged directly into ground water. Again where intensive agriculture relies on chemical inputs combined with irrigation, the chemicals often reach into ground water.

7. Supra. n.3 at p.37.

8. Ibid.

cally affected and from pollutant to pollutant the impact may vary.⁹ They can make water unfit for human and even animal consumption. Quality of water affects the atmospheric cycle since it is likely to affect the aquatic life.¹⁰

Air Pollution

Air pollution is defined as¹¹.

"The presence in the outdoor atmosphere of one or more contaminants as may be or may tend to be injurious to human, plant or animal life or property or which unreasonably interfere with the comfortable enjoyment of life or property or the conduct of business".

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9. I.P.S.Sidhu, "Socio Economic Aspects of Pollution" in Paras Diwan (Ed.) Environment Protection: Problems, Policy administration law (1987) p.110 at p.111. Pollutants vary in their characteristics such as some are slow in their damaging effect and the reaction is irreversible appearing only in the second generation while some pollutants maintain their chemical integrity for decades and even centuries. Yet others are degraded to harmless materials in a matter of hours or days. Some pollutants do not directly harm but in turn harm the ecosystem by consuming oxygen for their oxidation process. World Development Report, op.cit., p.46. Industries contaminate rivers with toxic chemicals and heavy metals such as lead, mercury etc which are hard to remove.
 10. N.C.Ghose and C.B.Sharma, Pollution of Ganga River (1989) p.1. Preservation of the quality of water is essential, for, 60% world oxygen is supplied and renewed by aquatic plant life and any threat to aquatic life means threat to human life.
 11. According to U.S.Department of Health and Education as given in Lal's Commentories (2nd Ed) Water and Air Pollution Laws (1986) p.280. Scientifically the nature of air pollution may be divided into two folds. Satish Chandra, "Some Issues of Air Pollution in India", R.K.Sapru (Ed) Environment Management in India (Vol.I) (1987) p.138 at p.140.

and the contaminants as such are termed air pollutants. Polluting the air by human intervention started with the burning of fossil fuels like coal, oil, natural gas. They are the sources of energy, an essential resource for industries. Once industrial activities came into process, air pollution was recognised as an unavoidable consequence of industrialisation. Industries constitute only one source of air pollution.¹² Pollution of the atmosphere is caused when any material like a toxic gaseous hydrocarbon or invisible atomic radiation is added to the atmosphere and is likely to cause harm to the environment.¹³ The immediate effect of pollutants in air is noted by such things as settled dust pollutants, smoke, odour and fly ash some times even affecting human health or causing plant withering.¹⁴

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12. R.D.Ross (Ed.), Air Pollution and Industry, (1972) p.2. Some of the important sources of air pollution are (1) transportation (2) domestic heating (3) electric power generation (4) refuse burning (5) industrial fuel burning and process emissions. Apart from this organic compounds like perfumes, after shave lotions, etc. contribute to air pollution. Pollutants are also added by natural processes such as volcanic eruption, decay of vegetable, forest fire, dust storms etc.
13. Id., p.1. WHO defined air pollution as befouling the air by human activities to such an extent, when it is sufficient to cause harmful effect to the health, vegetable and property. An air pollutant need not necessarily be inhaled. It becomes a pollutant merely by being in the air.
14. Id., p.2. For example SO₂ attacks vegetation. Manufacturing process involves different steps such as combustion for energy and emissions in the process thus giving out pollutants.

Industries that are primarily responsible and likely to pollute are many and pollutants emitted are of different types.¹⁵ There are secondary pollutants produced by photochemical reactions amongst the pollutants. They are more toxic and harmful than the primary ones.¹⁶ The air pollutants need not be strictly gaseous in state, it includes fine particles that will remain in the air for sometime and then get deposited on various surface¹⁷ or some time become liquid combining with water vapour to be carried away by wind and come down at far away places.¹⁸ The consequences of air pollution are far reaching than any other pollution as it has the potential of becoming transboundary and transnational.¹⁹ Some air pollutants are

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15. Yogendra N. Srivastava, Environmental Pollution (1989) p.10. See also R.D. Ross (Ed) op.cit., p.5.
16. Id., p.14.
17. R. Sankaran Nair, "Atmospheric Pollution in the Fertilizer Industry" in National Seminar on Environment Pollution (May 6-8) held at Kochi (1976) p.264. They include coarse particles of grit mineral matter produced from fuels and by other mechanical agencies during grinding, crushing, blasting etc.
18. Pramod Singh, Environmental Pollution and Management (1985) pp.72-73. See also Yogendra N. Srivastava, op.cit.,
19. Id., pp.77-78. Air pollutants in combination with dust and water cause pollution like mist for eg. the first evidence of air polluting came in Belgium when Mense Valleas by heavy smog causing 634 deaths and 6,000 getting sick. London smog of 1952 killed 4,000 people. See also Dr.R.C. Sharma, Environmental Education (1986) p.10.

passive in their toxicity but their actions result in environmental changes by affecting the atmosphere, causing temperature rise, penetrating ultra-violent rays into the lower levels of stratosphere and depleting of the ozone layer.

Land Pollution

Industries are responsible for pollution of land both directly and indirectly. Directly, on the one hand they are dependent on land for natural resources like minerals and salts,²⁰ forest etc.²¹ While on the other hand, they make use of the surrounding areas for dumping industrial wastes and effluents. It not only causes land pollution, but inturn also result in air pollution in the area.²²

In the coastal region, mining would eventually lead to serious coastal pollution. Removal of sand, sediment and shell deposits are carried on by manual or dredging operations from

20. "Eating into their Lungs", The Hindu Surveys of the Environment 1993, (1993) p.81. (A report based a study by Harsh Jaitli, Dr.P.K.Gupta, Dr.D.D.Motiano and Dr.S.S.Kaushal.) Metallic minerals like lungsten, copper and zinc and non-metallic minerals like gypsum, bentonite, marble, fuller's earth, siliceous earth, white clay, glass sand, limestone, yellow octore, selenite, jasper, lignite, asbestos, granite sand stone etc are found mostly in the States of Rajasthan, Bihar etc.

21. Rural Litigation and Entitlement Kendra v. Union of India, A.I.R. 1985 S.C. p.265. Quarrying and mining have devastated the Hymalayan region. Rural litigation case has elaborately discussed the damage caused by this process of indiscriminate mining of the area.

22. Infra. n.24.

river mouths, backwaters and shore line.²³ This process is likely to result in the exposure of land to increased wave action and consequent instability of the beach. This might also lead to the advancement of salt water - fresh water interface affecting the ground water potential of the coastal zone.

Removal of the top soil for bricks and tiles manufacture has long lasting adverse effect on the soil.²⁴

Soil erosion and depletion of the water table are the two immediate consequences of cutting and clearing of forest for the commercial supply of timber to the plywood industry.²⁵ Again, industrial products like pesticides and insecticides affect the fertility of the soil. Use of fertilizers in places with abundant irrigation facilities gradually increases salinity of the soil.²⁶

23. U.K.Gopalan, "Environmental Threats of Coastal Zone with special reference to Estuaries in Kerala", paper presented in the National Seminar on Environment held in 1990 at Cochin University of Science and Technology. See also [1984] C.U.L.R. 268.

24. B.B.Vora, "Towards a National Land Policy", Environmental Policy and Law, 16/5 (1986) p.153 at p.155. Top soil is a virtually irreplaceable resource as it takes between 500 to 1000 years to build an inch of it.

25. Id., p.159. See also Centre for Science and Environment, The State of India's Environment 1984-85 The Second Citizen's Report (1985) p.415.

26. Id., p.21. Multicropping with the aid of perennial irrigation and the application of large quantitative of inorganic fertilizers result in the depletion of micro nutrients, like zinc, manganese and sulphur.

Marine Pollution

Human activities are so wide spread that he left nothing unturned and his indulgence with marine environment is very old.²⁷ His treatment of ocean as an ideal garbage sink²⁸ got a set back and cannot continue any longer because it has no infinite capacity to absorb the dumpage that is now mostly toxic and hazardous in nature. The pollution of marine environment, varies from waste disposal, oil spillages, exploration and exploitation activities to radio-active wastes.²⁹

Industries are responsible for devastating marine environment in different ways. The first and the most frequent one alarming in quantity and quality is the disposal of industrial

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27. R.A.Malaviya, "Marine Pollution Control, An Appraisal", [1984] C.U.L.R. p.227. It is a great source of food, energy, transport and recreation. Without the sea, the planet would be uninhabitable in Our Common Future it is identified as providing the balance of life. WCED, Our Common Future, (1989) Oxford University Press, p.262.
28. Rohmatullah Khan, "Marine Pollution and International Control", I.J.I.L. 48 (1973) p.48.
29. R.Jagmohan Rao and Mrs.Rajalakshmi, "Legal Control of Marine Pollution:An Indian Perspective", National Seminar paper held in 1990 at Cochin University of Science and Technology, p.5. See also Beni Prasad Agrawal, "Strict Liability on Offenders Marine Pollution" in Lex et juris, Law Magazine, 1989, p.18.

effluents without proper treatment.³⁰ This indiscriminate chemical waste³¹ disposal proved to be very harmful to biota of the sea.³²

Secondly, high quantity of the pesticides and insecticides get into the marine waters as run off adversely affecting the aquatic kingdom.³³

Thirdly, developed countries dispose off highly radioactive and nuclear waste in the depths of deep sea by incineration or dumping, carrying it away from their shores. Again the transport of waste, widely in practice today, is yet another threat to the marine environment.

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30. R.A.Malaviya, Pollution Aspects of Ocean Management. A social and legal analysis of the problems and suggested management strategies, [1979] C.U.L.R. 49. There are mainly two reasons for this. (1) Such disposal was thought to cost least with risk least and (2) Industries considered it to be a way from liability of damages.
31. Id., p.51. The chemicals found dissolved in oceans waters include mercury, lead, hydrocarbons, radioactive analides.
32. R.Jagamohan Rao, op.cit., 29 p.5. Pollution caused by waste disposal is varying in nature since pollutants disposed are also diverse. Thus metals such as mercury, cadmium, arsenic etc are toxic to human health while occurrence of high concentration levels of nutrients BOD (Biochemical Oxygen Demand) Chlorophylla etc make water unfit for existence of life.
33. Supra. n.30 at p.52. DDT, dieldrin, endrin and poly-chlorinated Biphenyl (PCB's) are the important pollutants that are found in water run off from agricultural areas and from atmosphere.

Noise Pollution

Noise is a type of atmospheric pollution that has become an inevitable part of this modern urban, industrial world. Noise is an unwanted sound without agreeable musical quality.³⁴ Noise is basically a nuisance and annoyance. This annoyance is not necessarily related to the intensity of sound but influenced by subjective factors like familiarity and personal attitude.³⁵

Noise becomes pollution when the intensity and frequency of the sound is likely to affect the quality of environment thus affecting man in different ways.³⁶ Generally excessive noise causes psychological and physiological effects.³⁷

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34. 16 Encyclopaedia Britannica, p.558 (1965); Pramod Singh, Environmental Pollution and Management (1985) p.109 at p.111. The word noise is derived from the Latin noun 'nausea'. It is measured in decibels (dB) and is generally made up of components of different pitch mixed in various proportions where each component has its own potentiality for noisiness.
35. 20 Encyclopaedia Americana (2nd Ed) 1969 p.400.
36. William Rodgers, Environmental Law (1977), p.551. Noise pollution is caused by excessive offensive persistent or stouling sound beyond the acceptable limit.
37. Hollywood Silver Fox Farm Ltd v. Emmett (1936) 2 K.B. 468. See also Pramod Singh, op.cit., 34 at p.119.

Industries and Noise Pollution

There are different sources of noise pollution³⁸ and industries constitute one among them.³⁹ Industrial noise includes noise from various machineries like boilers and machinery, foundary, flour mill, cutting machines, lathe machine etc. Noise varies from industry to industry⁴⁰ and the workers are the immediate victims of noise pollution.⁴¹ A survey conducted by the Central Pollution Control Board to measure the noise pollution level near an industrial area and a commercial area showed that the latter exceed the former.⁴²

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38. Industrial activities, traffic and automobile loud speakers, other commercial, social religions and political activities.
39. 9 Everyman's Encyclopaedia, p.189; 20 Encyclopaedia Americana (1972) p.492. Noise has become a problem of importance to an industrial society as a result of the extensive use of machinery.
40. 1 Everyman's Encyclopaedia, p.19. Recent survey of noise level in industries reveal that levels upto dB or more are found in certain factories.
41. Workman's Compensation Act provides for compensation for absolute deafness.
42. "Noise Pollution. in the City of Kanpur"
Paristhithivarthā (Environmental News) Jan-March 1992.

Waste Pollution

Waste⁴³ is the last phase of a manufacturing process and is a natural consequence of industrialisation. Waste is the residual to consumption and production⁴⁴ and disposal of these refuse is a burning problem. Management of waste took a new turn today as there is tremendous growth in chemical industries⁴⁵. Chemical industries generate hazardous wastes of toxic nature.⁴⁶ Whereas, biomass based industries have waste greater in volume that will increase BOD.⁴⁷

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43. Section 30 of Control of Pollution Act, 1974 (England) defines waste as including: (a) any substance which constitutes a scrap material or effluent or other unwanted surplus substance arising from the application of any process; (b) any substance or article which requires to be disposed off as being broken, worn out, contaminated or otherwise spilled".
44. Ian Blore and Fiona Numan, "Residual Resources and Public Policy", 26 *Nagarlok* 1 (1994) p.3.
45. G.Raghuraman "The Legal Hazards in Handling Hazardous Substances" (1993) 1 *Comp.L.J.* p.19.
According to UNEP, every year between 1,000 and 2,000 new organic and inorganic chemicals are added to some 1,00,000 already produced commercially.
46. M.Narayana Rao, "Hazardous Waste Management" in *Desh Bandhu* (Ed) Environmental Education and Sustainable Development, (1990) at 320. Toxicity is the ability of a waste to cause an injury upon contact with a susceptible site in or on the body of a living organism, "Toxic chemicals" are substances which cause injury as a result of inherent poisonous properties it possesses.
47. Brojendra Nath Banerjee, Can Ganga Be Cleaned (1989) p.94. Such wastes are mostly organic waste and after entering into water breakdown into their component parts by the action of bacteria utilizing dissolved oxygen.

Waste can be solid waste⁴⁸ or liquid waste. Dumping of waste on the land as land fill or in the deep sea or passing it to the waters as effluent were the usual practices till the public protests by the local people compelled authorities to look at the problem seriously.⁴⁹ Today, developed nations have incorporated not only legislation for the management of waste but also action programme for destroying the hazardous waste matter that are substantial threat to public health.⁵⁰ At the global level waste management is a burning issue still, a matter of controversy discussed at several forums on several occasions.⁵¹ The most difficult aspect is the limitation of

48. 42 U.S.C.6903 (27) defines solid waste as "a solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining and agricultural operation and from community activities".

9. Simon Ball and Stuart Bell, Environmental Law (1991) p.263. One such earliest incident was concerning the deposit of hazardous waste in the West Midlands in the early 70s that led to the introduction of Deposit of Poisonous Wastes Act, 1972, the first ever control over the deposit of hazardous waste in the world.

50. Walter A. Rosenbaum, Environmental Politics and Policy (1991) pp.4-5. In America, EPA (Environment Protection Agency) is empowered under legislation such as CERCLA (Comprehensive Environmental Response Compensation and Liability Act) and SARA (Superfund Amendments and Reauthorisation Act) to take steps for the disposal of hazardous wastes accumulated.

51. "Recycling of Hazardous Waste" Environmental Policy and Law 25/4/5 (1995) p.184. Workshop held in Dakar on 17 March 1995, attended by over 50 governments had dialogue on the means to halt the transfer of hazardous waste for recycling from OECD to non-OECD States and the types of waste falling under it.

our knowledge about the toxic effects of these waste.⁵² The impact of poor solid waste policies is more local than global.⁵³ Though legal waste management is comparatively late introduction in the environmental protection, it has strode fast at the international level mainly the hazardous waste management.⁵⁴

Hazardous waste

It is a type or sub set of solid waste⁵⁵ and is harmful in every respect.⁵⁶ It is the physical, chemical or infectious

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52. Kanikar Pradnya, "Microbiological approach to Environment Protection Against Toxic Substances and Hazardous Wastes" in *Desh Bandhu* (Ed) op.cit., p.353. See also supra.n. 44 p.1. The International Seminar on "New Directions in solid waste management" held at the University of Birmingham revealed the nature of problem that uncertainty or even ignorance above the nature, behaviour and structure of residual treatment cause difficulty for the public policy maker.
53. Id., p.2.
54. Basel Convention 1989 is the result of U.N. initiative to deal with the problem of waste disposal. For details see infra chapter 10, pp. 345, 346
55. RCRA defined Hazardous waste as a solid waste or combination of solid waste 42 U.S.C. § 6903 (5).
56. The D.C.Circuit RCRA and Migration of Hazardous Wastes: No Does it Mean no", 59 (5) *Geo.Wash.L.R.* 1991 p.1145. See Iwona Rummel Buloka, "The Basel Convention: A Global Approach for the Management of Hazardous Waste" (UNEP) Environmental Policy and Law 24/1 (1994) p.13. The generation, storage, treatment transport recovery transboundary movement and disposal of hazardous waste pase a real problem to society and represent a serious danger.

characteristics, quantity and concentration that cause death, or serious illness or otherwise pose a threat to human health or environment if improperly handled.⁵⁷ Hazardous nature of a substance is identified by certain properties such as toxicity, persistence, degradability, potentiality for accumulation in tissues, and other related factors such as inflammability, corrosiveness etc.⁵⁸ These waste can be chemicals or micro organisms causing injury by both intrinsic and extrinsic properties.⁵⁹ The true amount of its generation is now known.⁶⁰

Waste Management Measures

Recycling of the waste is the best way to solve the problem of waste.⁶¹ Other methods include process change,

57. RCRA S.3004 (a).

58. Id., S.3001 (a).

59. Supra. n.46 at p.354. The approximate data is about 400 million tonnes a year.

60. Iwona Rummel Bolaka, op.cit., p.13. OECD estimates that an average one consignment of hazardous waste crossed an OECD frontier every five minutes all year round. EPA estimated that in 1985 American Industry produced at least 275 million metric tonnes of waste.

61. Ian Blore and Fiona Nunan, op.cit., p.4. For residuals are resources equivalent natural resources provided one has found a way of getting them utilised properly for marketing. "Hazardous Waste - Towards International Agreements" Environmental Policy and Law 1/2 (1984) p.64. Basel Convention agrees with the measure that developing nations may import hazardous waste for the purpose of recycling. The Workshop held in Dakar on 17 March, 1995 described recycled materials as a main stay of economic development for developing countries. Recycling of Hazardous Waste" Environmental Policy and Law 25/4/5 (1995) p.184.

selection of raw materials that leave least waste or technology that make maximum use of the raw materials.⁶² There are also different methods for the disposal of hazardous waste such as land fill,⁶³ incineration,⁶⁴ deep well injection⁶⁵ and ocean dumping.⁶⁶ Of these, only incineration can be said to be an environmentally viable measure because characteristics shared

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62. P.R.Ramaswamy, "Good House Keeping in Industries as the Primary Means of Pollution Control", National Seminar on Environmental Protection, op.cit., p.355. For example, Textile Mills can use instead of starch as sizing agent cellulose sizing agents (carboxymethyl cellulose etc) thus reduce BOD from 50% to considerably little BOD; in metal plate industries reduce cyanide strength by replacing CuCN_2 by acid copper solution; tanneries can use instead of lime sulphide, Amines and Enzymes etc.
63. Land fill is a method of placing the waste beneath the surface of the ground covered with soil, either in containers or tanks or simply.
64. Incineration is a controlled high temperature oxidation process that converts quickly and safely all organic hazardous waste into CO_2 and water.
65. Ocean dumping is the cheapest mode of disposal but now, it is found to be a dangerous, environmentally malignant measure.
66. In Deep well injection, the liquid waste is disposed of into an empty strata underground, away from water bearing.

by all toxic substances are difficult to assess and sometime they tend to be chronic at low doses, and consequently to occur without the individual's awareness of exposure.⁶⁷ In order to prevent the problem of pollution arising from dumping of waste in undeveloped countries the NIMBY (Not in my backyard) approach has to be adopted.

Radio-active pollution

Radioactive pollution takes place when radioactive elements emit ionizing radiation due to instability of nucleus in such elements.⁶⁸ It is mainly from nuclear power plants. It can also be produced from hazardous wastes or industrial effluents containing radioactive material when such wastes or effluents are disposed off without any proper treatment.⁶⁹ Radiation is received by exposure from air, water,⁷⁰ soil. The fact that such pollutants may stay for years in the

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67. John S. Applegate, "The Perils of Unreasonable risk", 91 Colum.L.R. (1991) p.261. The best way to determine the effects of toxic substances is to estimate risk. Scientists measure toxicity in terms of the number of excess cancer cases that are likely to be induced by exposure to the substance.
68. Narayana Rao, op.cit., p.321.
69. They may exist in waste produced by key industrial activities involving petroleum natural gas, geothermal energy, water treatment and mining. "NORM - Naturally Occurring Radioactive Material" 22 ELR 10052.
70. Id., 10053. Radioaction is everywhere. Sun itself is an immense source of radiation and the average person is exposed to approximately 15,000 particles of radiation per second for his or her entire life. Atomic Energy Act does not regulate a variety of substances that occur routinely in nature or that may become radioactivity enhanced through human activity.

upper atmosphere and fall out anywhere on the earth and thus contaminate the land and impair the health of people thousands of kilometres from the source of pollution⁷¹ emphasises the intensity of the problem.⁷²

Nature of Industrial Pollution

Industrial activities are said to cause degradation of environmental quality in different ways. The change in quality may be the direct result of the process of industrial production or it may be the indirect consequence.⁷³

Direct pollution is caused by the industrial effluents and emissions as well as by the over exploitation of natural resources as raw materials⁷⁴ resulting in commodification of nature with no consideration for the long term sustainability

71. Pramod Singh, op.cit., p.4.

72. For example, Chernobyl accident resulted in radioactive pollution in far away places like Sweden. Bharat Desai, Water Pollution in India (1990), p.4.

73. Supra. n.12 at p.4.
According to the author, one of the sources of air pollution (20%) is industrial fuel burning and process emissions which may be called direct consequence. They are also indirectly responsible for pollution when their products emanate pollutants.
According to another classification, environmental pollution due to industries may be of three types:

- 1) pollution as a direct result of industrial growth
- 2) pollution as an indirect result of industrialisation
- 3) pollution as a remote cause of industrialisation -

See A.M,Varkey, "Industrialisation and environmental Problems", in P.Leelakrishnan et.al. (Eds) Law and Environment (1992) pp. 94,95.

74. Centre for Science and Environment, The State India's Environment 1984-85 - A Second Citizen's Report, (1984-85) pp. 362-367.

of the system. Industries also transform natural resources and so doing deplete them and spoil others. Localisation of industries may invite influx of migrant population and lead to greater density of population in the area.⁷⁵ Thus industrial growth also result in the pollution and environmental quality degradation resulting from insanitary, unhygienic conditions of life in the over crowded industrial cities.⁷⁶ Pollution of the natural resources by industrial products is yet another effect of industrialisation. Thus pesticides and insecticides used for green revolution⁷⁷ and the non-biodegradable nature of the consumer

75. The Hindu Survey of the Environment 1992 (1992) p.89.
Also see Derryl D'Monte, Temples or Tombs (1986) p.202.

76. UNFPA, "Results of Population Growth" Environmental Policy and Law 22/3/92 pp.135-136.
The World Population Report published on 29th April, 1992 by UNFPA entitled "A World in Balance" shows that unbalanced economic and population growth within and between countries is boosting migration to record levels. Some 83% of population growth in the next decade is estimated in urban areas... and population growth is a major factor in environmental impact...responsible for around 79% of deforestation 72% of arable land expansion and 69% of growth in livestock numbers.

77. P.R.Rajagopal, "Environmental Factors in Health Hazards" in Dr.R.Kumar, Environmental Pollution and Health Hazards (1987) p.7. Because nearly 70% of the pesticides consumed in India belong to the category of agro-chemicals banned or restricted in a number of countries and identified by WHO as excessively toxic or hazardous. Intensive use of pesticides develops resistance among pests to chemicals set in leaving us where we started.
See also Samuel S.Epsteen, and Shirely Briggs, "If Rachel Carson were writing Today: Silent Spring in Restrospective" 17 EIR 10/81 at 10183.
See WCED, Our Common Future (1987) p.211.

products have created new dimension to environmental problems.⁷⁸ Again pesticides washed away by rainwater pollute the rivers and streams and is an alarming problem in the delta regions⁷⁹ of Ganga.

The consequences of pollution thus caused may be immediate or remote. Pollutants affect the flora and fauna in the neighbourhood making life difficult or causing health problems to man. Hazardous and toxic pollutants turn out to be fatal as in the case of Bhopal tragedy.⁸⁰ On the other hand, pollutants in low doses tend to be chronic.⁸¹ Thus radiation pollution and adverse effect of fertilizers are slow and remote in nature.⁸² Cancer caused by pollutants like fibres or particles when inhaled is an example of remote, chronic effect of pollution.

78. Supra. n.12 at p.5.

79. Supra. n.47 at p.184.

80. Bhopal tragedy in which many people died and many thousands suffered injury after inhaling the highly toxic methylisocyanide is a clear evidence of this high risk involved.

81. Rosenbaum, Environmental Politics and Policy, (1991) p.73. Workers in America have shown symptoms of diseases caused by exposures during 1950s and 60s.

82. Supra. n.67.

Contaminated water, polluted air, foul smell, allergic reactions and soot and dust are the local problems caused by industries. They also lead to transboundary pollution when pollutants are carried far away and cause acid rain.⁸³ nuclear radiation consequences.⁸⁴ Such consequences may be due to a voluntary act or an accidental one.⁸⁵ Most of such accidents are within the plant one's.⁸⁶

Deterioration of the quality of environment by various industrial pollutants has proved to have significant effect on health, ecosystem and atmosphere.⁸⁷

83. Irena H. Van Lier, Acid Rain and International Law, p.10; Walter A. Rosenbaum, Environmental Politics and Policy, p.10. See also The State of India's Environment, 1984-85 (Second Citizen's Report) p.136.

84. Another instance of the transboundary effect of pollution took place in the radiation leakage from the chernoby (USSR) nuclear power plant. The radiation clouds travelled 1000 km away upto Sweden to affect vegetation, cattle stock etc.

85. Christian Montgomery, "Reducing the Risk of Chemical Accidents: The Post-Bhopal Era", 16 ELR 10300. See also supra. n.77. There is an estimated fifty million work related accidents occurring each year many of them resulting in permanent disability.

86. Ibid. An EPA study of 6,928 sudden accidental releases of toxic chemicals revealed that 95% of it accounted in plant accident while transportation accident accounted for 25%.

87. World Development Report 1992. Development and the Environment (Pub. for the World Bank Oxford Uni. Press 1992) p.4. The Report identified three potential costs of environmental damage (1) human health will be harmed (2) economic productivity may be reduced (3) pleasure or satisfaction obtained from an unspoiled environment often referred to as its "amenity" value may be lost.

Effect of Health

Health, according to the Constitution of WHO is a state of complex physical, mental and social well being and not merely the absence of disease or infirmity.⁸⁸ Industrial pollution result in health hazards to both workers⁸⁹ and public generally.⁹⁰ Thus polluted water cause chemical poisoning, or skin infection.⁹¹ Again pathogenic bacteria present in the polluted water can cause diseases like diarrhoea, dysentery, typhoid, gastroentri is, etc.⁹²

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88. Erik P.Eckholm, Down to Earth, Environment and Human Needs, (1991) p.48. See also R.Kumar op.cit., p.4.
89. "Environmental Influences on Health" World Development Report, 1993 p.95. It is estimated that 36 million daily or 13% of the global burden of disease is caused each year by preventive injuries and deaths in high risk occupations and by chronic illness stemming from exposure to toxic chemicals noise stress physically debilitating work pattern.
90. World Development Report, 1992, op.cit., p.51. An extrapolation from GEMS data on airborne particulars for a sample of about fifty cities indicates that in the mid 1980's about 1.3 billion people-mostly in developing countries - lived in town or cities (of more than 250,000 population) which do not meet WHO standards for suspended particulate matter. It is also noticed that pollution is for worse in those developing countries now in the those of industrialisation than today's industrial countries. Id., p.50.
91. Supra. n.47 at p.99. Effluents from Paper Mills developed a peculiar skin diseases in the feet of people who crossed the river, polluted by effluents from the Mill, for several occasions. Id., p.73.
92. Id., p.106.

Japan's heavy metal pollution generally named 'Minamata' disease is an early instance of health hazard.⁹³ Again Itai-itai, an epidemic disease among hundreds whose bones agonizingly disintegrated because of cadmium in their food and water is another instance of industrially induced disease.⁹⁴ One of the common ailments caused by air pollutants is respiratory problems,⁹⁵ like chronic bronchitis, primary lung cancer, and hyper tension. The effect of air pollution on health are of three types viz., short term, acute and chronic.⁹⁶

Effect of noise is psychological and physiological interfering with our activities at three levels⁹⁷ while radiation pollution is more chronic in effect.

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93. Supra. n.89. See also Erik P.Eckholm, op.cit., p.63.
94. Ibid.
95. Dr.M.Raghavan, "Effect of Environmental Pollution on Human Health" National Seminar On Environmental Pollution, op.cit., p.113 at 114.
Scientific study conducted in 1970 and 1974 by Industrial Health Wing of the Factories and Boilers Department of Kerala in Mavoor Area on Udyogamandal in collaboration with NEERI showed an increase in respiratory ailments.
96. S.S.Salini, "Air Pollution and Legal Control" [1980] C.U.L.R. 348 at 351.
97. It caused annoyance, intolerable agony, lead to errors and lower output and efficiency. Pramod Singh, op.cit., p.119.

Though industrial pollution affect the public generally, workers are the class more prone to health hazards than any others since they are exposed to high concentration for extended period.⁹⁸ They often encounter health risks on the job.⁹⁹ The absence of correct data to prove the link between an injury or disability or death of a worker and the occupational hazard involved in it is always a hurdle in establishing the range of effect of such hazards on workers.¹⁰⁰ Occupational health hazards are found commonly starting from the smallest unit with simplest activity to the larger ones¹⁰¹ and on several occasions

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98. Dr.R.Kumar, op.cit., p.8. Thus occupational cancer is caused due to certain chemicals which are carcinogens. There are a number of chemical agents which become carcinogenic in the presence of other chemicals (co-carcinogens) in the world environment.
99. World Development Report 1993, p.95
WHO has estimated that nearly 3% of the global burden of disease is caused each year by preventable injuries and deaths in high - risk occupations and by chronic illness stemming from exposure to toxic substances, noise and hazardous work patterns.
100. Dunu Roy, "When the grind tells on you", in The Hindu Survey of the Environment, 1993 p.76 see also Arun Kumar Bhatt, "Dangerous work", The Hindu Survey, 1993 p.84. For instance, number of reported cases of occupational diseases under the Factories Act and Workman's Compensation Act do not tally at all with reports of Medical Research. When it is only 120 cases in the former, the latter has reported prevalence rates upto 34% for silicosis among Bihar miners, upto 45% for pneumoconiosis among coal miners and 14% for hyssinosis in textile workers. Asbestos industry has as high as 30%.
101. Ibid.

larger undertakings are better in their management than the small ones.¹⁰² Quarrying and Mining has proved to be very much hazardous to the workers who are generally affected by polluted dust.

Effect on the Ecosystem

Growth and productivity of plants is determined by the availability of essential elements and also the absence of elements that are toxic to plants or phytotoxic.¹⁰³ The impact on ecosystem can be either direct impact on the foliar surface causing effect on leaf or stem,¹⁰⁴ or indirectly it will affect the soil and induce changes in the roots function¹⁰⁵ reduce the number of essential micro-organisms.¹⁰⁶ It can also be caused by primary pollutants or by secondary pollutants.¹⁰⁷ Thus industrial effluents are dangerous to ecosystem as they can destroy

102. Supra. n.99.

103. Supra. n.83.

104. Dunu Roy, op.cit. For example emission of SO₂ will affect the leaves. Vegetation in the mining of quarrying area gets affected with dust pollutants.

105. When pollutants reach the soil as acid rain, it is likely to acidify the soil. Acidity of the soil is determined by the presence of hydrogen ions + and the common measure of acidity is pH. Sulphur, Nitric oxides and chlorine entering the atmosphere as industrial pollutant in reaction with water forms strong acids. Supra. n.103 pp.10,11.

106. B.B.Vohra, op.cit., pp.83 and 93.

107. R.D.Ross, op.cit., pp.9-10.

the regenerative character of the natural sources.¹⁰⁸ Hazardous wastes contaminate the soil and water and plants using such water will suffer from injurious damages.¹⁰⁹ Industrial effluents also result in BOD.¹¹⁰ In areas where mining, smelting operation etc are in progress pollutants show their effect on the surrounding vegetation. Pollutants also deteriorate historical monuments by affecting their beauty, quality etc.¹¹¹ Air pollutant's effect on the forest is no more disputed.¹¹²

Effect on the Atmosphere

Atmospheric changes are being stimulated by industrial pollutants to a great extent. Apart from those effects of varying nature discussed already, now it has been concluded

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108. Supra. n.47 at 111 pp 83 and 93.
109. Narayana Rao, op.cit., p.323.
110. Supra. n.47 p.97. It will become as high as 55 to 60 against the prescribed BOD of 3 m per litre. Untreated tannery effluents have shown a BOD of 3000. BOD or Biochemical Oxygen Demand - It is a measure of the degree of organic pollution of water. 1992 F.L.T. p.15 (Glossary).
111. Derryl D'Monte Temples or Tombs (1985) p.91. Now Save Taj Package is introduced by the Centre. It is an elaborate programme to save Taj from the ravages of pollution. Taj Trapesium 10,400 sq.km would be demarcated.to bring down the level of pollution around Taj. Save Taj Package, The Week 19th March 1995.
112. "Pollution Threatens Ecosystems" Environmental Policy and Law, 25/1/2 (1995) p.17.

that industrial pollution, if allowed to continue undisrupted, will gradually convert the only known lively planet in the solar system into a lifeless mass.¹¹³ The two main atmospheric changes are ozone Depletion and Green House Effect.

Ozone Depletion

According to the latest scientific reports industries are responsible to a great extent for those drastic atmospheric changes induced by pollutants like chlorofluro carbons, halons, and nitrous oxide.¹¹⁴ It was in 1985 that scientists alerted environmentalists and national as well as international policy makers to the growing danger of the phenomenon of ozone depletion.¹¹⁵ It involves a process by which atmospheric protecting blanket of O_3 ¹¹⁶ is being thinned or even torn totally at places to allow the ultraviolet rays penetrate¹¹⁷ easily.

113. "Is the Ozone layer depleting at the Global level", Mathrubhumi (Sunday Supplement) Feb.7, 1993, p.3.

114. Cynthia Pollock Shea, "Protecting The Ozone Layer", State of the World (1989), p.77 at p.78. See also R.D.Ross, Air Pollution and Industry, p.11.

115. Ibid.

116. Ibid. Ozone (O_3) is three atom form of oxygen found at attitudes of³ between 12 and 25 kms. It is the only gas in the atmosphere that prevents harmful ultraviolet radiation from reaching the surface of earth. See also Green Watch, The Hindu, Sunday, Sept.1, 1991.

117. Cynthia Pollock Shea, op.cit., p.85. Scientists estimated the rate of depletion as $\frac{1}{3}\%$ per year. Numbus 7 a satellite for weather reports launched in 1978 estimated that during the 7 years period, the depletion of ozone layer was 4%. This was later confirmed by American Scientists, supra. n.113.

Depletion of Ozone, the gas that absorbs much of the ultraviolet radiation from the sun, adversely affect not only human beings, but animals and plants as well.¹¹⁸ It promotes skin cancers and cataracts and depresses human immune system. It also reduce crop yields, deplete marine fisheries, cause materials damage and increase smog.¹¹⁹

Green House Effect

Atmosphere consists of a mixture of different gases. It is the natural gases that keep the earth warm and life possible on this earth.¹²⁰ When the composition of these gases get altered by any external force, it will be beyond the regenerative capacity of nature and will affect the whole balance, resulting in consequence like- green house effect.¹²¹ CO₂ is the most significant agent for the green house effect since the percentage of CO₂ has increased much in the recent

118. Id., pp.81-83.

119. Ibid.

120. Dr.M.A.H.Pramanik and Dr.Anwar Ali, "Impact of the Green House Effect on Bangladesh", UNDRO NEWS, May/June 1990, p.21. The most abundant of these green house gases (about 50%) is carbondioxide (CO₂) accompanied by smaller amounts of methane, nitrous oxide, and CFCs.

121. Ibid. In a green house, the glass panels allow the solar radiation to enter in but prevent the emitted radiations from going out, thereby raising the temperature inside.

years.¹²² CFCs and Halons also stimulate the process. Thus, industrial activities constitute one main cause for the generation of green house gases in large volumes.

Deforestation results in the further increase, of CO₂ since forests are the natural sinks that absorb CO₂.¹²³ This increased CO₂ traps more of earth's heat, gradually warming the global climate. Overheating of the earth will result in the melting of polar ice caps and also alter world climate zones. This global warming is today a threat to the world community.¹²⁴ For, it can produce serious environmental and economic problems.¹²⁵ The effect is wide and deep enough to affect the whole environment directly or indirectly.¹²⁶

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122. Rosenbaum, *op.cit.*, p.53-54. It is mainly due to the burning of fossil fuels.
123. Kalpana Sharma, "Lopsides Report on Global Warming", The Hindu dated 5th June 1991.
124. Suzanne C.Messey, "Global Warming - International Environmental Agreement", 22 G.A.J.INT'L & COMPL. (1992) p.175.
125. Joel D.Scheroga, Combating Global Warming (1990) p.170. in agricultural productivity, geographic shifts on agricultural activities, forest dieback and migration, variation in the availability of water resources, loss of wet lands and changes in biodiversity.
126. Dr.M.A.H.Pramanik and Dr.Anwar Ali, "Impact of the Green House Effect on Bangladesh", *op.cit.* The changes include changes in precipitation patterns, oceanic and atmospheric circulation, monsoon variability and strength, cyclone frequency and intensity storms, surges etc.

Again presence of air pollutants in the atmosphere also sometimes cause immediate climatic effects such as extra rainfall, fog, violent weather like thunderstorms and hail storms.¹²⁷ On the other hand meteorological variables affect the severity of pollution.¹²⁸

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127. R.D.Ross, *Air Pollution and Industry*, op.cit., p.13. Thus when pollution level rise in industrial or metropolitan areas rain levels and possibly snow levels will increase. Sometimes clouds become over-seeded and no rain fall also may result. See also Dr.Gerhard Berz, "Natural Disaster and Insurance/ Reinsurance" UNDRO NEWS - January/February 1990, p.18.
128. Such variables are wind speed and direction, atmospheric diffusion, temperature variation with height, mean maximum depths and precipitation. Yogendra N.Srivastava, Environmental Pollution (1989) p.57

CHAPTER II

SUSTAINABLE INDUSTRIAL DEVELOPMENT:

RIGHTS AND LIABILITY

After the Stockholm Declaration on Human Environment, environmental protection became the universal goal to be achieved through national attempts, and countries approached the goal in different ways.¹ The fundamental doctrines applied to tackle industrial pollution at the grass roots are right to environment, sustainable development and strict liability.

Right to environment

International endeavour to project the need for protecting environment is not a unilateral process. It is the outcome of various processes, all aiming at the fulfilment of human fundamental needs dependent on many elements of the environment such as air to breath, water to drink and place to live in. This is the result of efforts for over the last two decades to read between the lines and synthesize a new rationale within the human rights dictum.²

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1. Martin A Mattes, "The Right to a Human Environment: A seminar", Environmental Policy and Law, 86 (1975).
 2. Richard Desgagne, "Integrating Environmental Values In To The European Convention On Human Rights", 83 A.J.I.L. 263 (1995).

Human Rights and Environment Protection

Environment issues did not figure in the Universal Declaration of Human Rights, 1948.³ The United Nations General Assembly acknowledged the existence of right to an environment adequate to support human health and dignity in 1968 in a resolution.⁴ Stockholm Declaration on Human Environment referred to the inter relationship between the enjoyment of human rights and the qualities of the environment.⁵ Article 12 of the International Covenant on Economic, Social and Cultural Rights,

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3. On 10th December 1948 the United Nations General Assembly adopted a Universal Declaration on Human Rights UN DOCA/811 p.21-27. It recognised rights such as right to life and security of persons, right to effective remedy for violation of fundamental rights, right to protect his interests through collective bargaining and the right to standard of living adequate for health and well being (Articles 3, 8, 23(3) and 25).
 4. 1968 United Nations Year Book. "Problems of the Human Environment", 473, 476, U.N. DOCA/L 533 as given in "NIMBY", 23: GA.J.INT'L & COMP.L, 409 (1993) at p.420.
 5. Declaration on the Human Environment (June 16, 1972) in REPORT OF THE UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT, UN DOC A/CONF.48/14/Rev.1, sec.1 (1972), reprinted in 11 ILM 1416 (1972) (hereinafter called as Stockholm Declaration). It says, "...man has acquired the power to transform his environment in countless ways...Both aspects of man's environment, the natural and the man made, are essential to his well-being and to the enjoyment of the basic human rights - even the right to life itself.

1966, recognised more explicitly the rights of everyone to enjoy the highest attainable standards of physical and mental health.⁶

Right to environment was a controversial subject for sometime. A legal recognition of a right to human environment was considered an exception rather than a rule by many, whereas some insisted for a constitutional recognition of this right.⁷ It is a community right rather than an individual rights.⁸ The nature of common interest of this doctrine became more explicit with the first and most important international declaration,⁹ Stockholm Declaration, which was to promote extensive cooperation among nations in the common interest. The transition is from individual to common to international interest and acceptance of responsibility by all.

6. Article 12 (2) provides that the steps to be taken by the States to achieve the full realisation of this right shall include the improvement of all aspects of environment and industrial hygiene and the prevention, treatment and control of diseases including occupational diseases...UN DOC A/811 p.118. See V.Gauri Shankar, "Human Rights Accountability of Transnational Corporations" in K.P.Saksena, Human Rights: Perspective and Challenges, Institute for World Congress on Human Rights (NCHR), New Delhi (1994), p.186.

7. Supra. n.1.

8. Supra. n.2.

9. "United Nations Conference on Human Environment held at Stockholm in 1972" in British Institute of International and Comparative Law, Selected Documents on International Environmental Law, (1975), pp.3-28.

Stockholm Declaration is concerned about threat to environment as an entity from varying human interference. It is concerned with the protection of environment from all destructive activities of man and did not try to project the idea that environment should be protected for protecting the human rights.¹⁰

The Charter on Environmental Rights and Obligations proclaims that everyone has the right to an environment adequate for his general health and well being.¹¹

The World Commission on Environment and Development(WCED) acknowledged that every human being has the right to life and to a decent life and basing on this premise evolved the principle of sustainable development.¹² But did not make it clear whether it is an individual right or a common interest of the society.

10. Id., p.3. The Declaration that 'man is both the creature and moulder of his environment' insist an attitude to promote sustainable development admitting pollution as a necessary evil and to join hands at the international level to cure the difficulties.

11. Charter on Environmental Rights and Obligations (Draft). Environmental Policy and Law, 21/2/91, p.81.

12. WCED, Our Common Future (1987), p.41.

Persistence of this doctrinal controversy is reflected in the Rio Declaration on Environment and Development where it is proclaimed that "human beings are entitled to a healthy and productive life in harmony with nature",¹³ The emergence of the new doctrine of "Sustainable Development" hails this balancing of interests. Individual right to environment is more a consumer right to have access to safe and non-hazardous goods.¹⁴

Is Environment an antithesis to development?

The environment-development dilemma projected itself for sometime with nations contradicting each other, giving weight to their national problems.¹⁵

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13. Rio Declaration on Environment and Development (June 14, 1992) UN DOC A/CONF.151/5/REV.1 Reprinted in 31 ILM, 874 (1992).
 14. UN General Assembly Resolution 87/136 at 22 ILM 683/ (1983) and UN Resolution on Consumer Protection, Resolution 39/248 at 24 ILM 914 (1985).
 15. R.P.Anand, "Development and Environment: The case of Developing Countries" in 20 (2) I.J.I.L. 1 (1980) p.8.

Development is for improving the quality of life and therefore, inappropriate development at the expense of environmental quality is detrimental to human conditions. Because industrialisation, the hall mark of development, results also in pollution unless there is effective regulatory control.¹⁶

The trend of industrialisation today demands more sustained measures for saving our fragile environment¹⁷ from developmental terrorism by sudden industrialisation.¹⁸ The Stockholm Declaration hoped to shape our developmental activities throughout the world with a more prudent care for their environmental consequences. Balance between environment and development started by permeating environmental concern into each and every developmental step and resulted in the evolution of a new doctrine of sustainable development. The economic disparities between the developed and the developing countries accelerated the need for action to combat environmental pollution at the global level and put forward new challenges to the doctrine.¹⁹

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16. G.S.Oberoi, "Development and Management of Environment through Topographical Maps", in R.K.Sapru (Ed.) Environment Management, 10 at p.11.
17. Ibid. See also A.M.Varkey, "Industrialisation and Environmental Problems", [1984] C.U.L.R. 83 and Report of the Preparatory Committee for the UN Conference on Human Environment, UN DOC A(CONF.48/PC/13 (1971) pp:13-27.
18. Bharat Desai, Water Pollution in India, Law and Enforcement (1990), p.1.
19. Prof.R.J.Rao, "Environment for Sustainable Development", 1 Andhra University Law Journal 54 (1993).

Sustainable Development

Environmental protection is one basic objective of sustainable development and demands conservation of natural resources like air, water, land, flora and fauna.²⁰ It is today the 'mandra' of modernization.²¹

The general meaning of sustainability is to maintain or support a programme or project for a long period.²² This need was expressed for the first time through the Stockholm Decla-

20. Supra. n.9. Principle 2.

21. B.Seshadri, "The doctrine of Sustainable Development", The Hindu (Sunday), June 20, 1992, p.12.

22. The term sustainability originates from the Latin word sustinere which means 'to hold up', 'to endure'. The Oxford Dictionary (1986) refers sustain as 'endure without giving way to support especially for a long period'. The meaning given by Collins Dictionary (1979) is 'to maintain', 'to support', Websters New Collegiate Dictionary (1975) describes sustainability as 'to give support', 'to keep up', 'to prolong'. See M.L.Santhanam, "Community Participation For Sustainable Development" 39 (3) I.J.P.A. (1993) at p.414.

ration though the coinage of the word 'Sustainable Development' took place much later.²³ The idea of sustainable development was explicitly considered in its present form in the 1980s by the IUCN and aimed at conservation of living resources.²⁴ The World Commission on Environment and Development gave a more precise definition to this term later.²⁵

The Commission defined sustained development as:

"development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

23. Supra. n.9. The need for protecting and improving the environment for present and future generations is stressed by measures like safeguarding resources, halting and preventing pollution, ensuring living and working environment, proper planning and assisting developing countries technologically and financially to attain certain standards.

- 1) safeguarding resources (Principle 2) in the case of renewable resources by maintaining the capacity of the earth to produce it (Principle 3) and in the case of non-renewable resources by guarding it against future exhaustion (Principle 5).
- 2) halting and preventing pollution (Principle 6).
- 3) ensuring healthy living and working environment (Principle 7).
- 4) assisting developing countries technologically and financially to attain certain standards (Principle 9, 10, 11 and 12)
- 5) proper planning of different types such as rational management of resources, reconciling development with environment, human settlement and urbanization, demographic policies etc (Principle 13-16).

24. The World Conservation Strategy was produced jointly in 1980 by IUCN, WWF and UNEP and defined sustainability as:
 "the management of the human use of the biosphere so that it may yield the greatest sustainable development to present generation while maintaining the potential to meet the needs and aspirations of future generations".
Environmental Policy and Law, 21/1 (1991) p.17

25. Supra. n.12 at p.35.

The endeavour is for a successful transition to a sustained development through the year 2000 by a massive shift in social objectives.

WCED called upon nations to conserve resources,²⁶ prevent environmental pollution²⁷ and promote public participation and increase access to information. The idea is to maximise the economic benefits from a given ecological milieu and minimise the risks and hazards to the environment.²⁸ The Brundtland Report thus engendered faith in legal, institutional and policy reforms as the principal means of implementing sustainable development.²⁹

26. Ibid. Sustainability in industrial activities requires the conservation of environmental resources such as clean air, water, forests and soils, maintaining genetic diversity, and using energy, water and raw materials efficiently.

27. Ibid. It requires enforcement of environmental regulations, promotion of low-waste technologies and the anticipation of the impact of new products, technologies and wastes.

28. Id., p.38.

29. Philippa England, "Problems and Prospects for the Implementation of Sustainable Development in Developing Countries: A Critique of the Brundtland Report" in (1993) 2 G.L.R. 147.

It denotes:

"economic growth without destroying the resource base and involves a new approach of integration of production with resource conservation and enhancement providing adequate livelihood and equitable access to resources".³⁰

The procedural efforts to implement this demand put forward by the Brundtland Report through regional and global meetings culminated in the UN Conference on Environment and Development (UNCED) at Rio de Janeiro in June 1992.³¹ UNCED provided a timely forum for the discussion of sustainable development in respect of resources for balancing sustainability with the short term priorities of government and interest of companies.³² Dignity of man and welfare of mankind is the goal to be achieved by focusing on the primary goal of sustainable development. Thus the twenty seven Principles laid down under the Rio Declaration on Environment and Development aim at

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30. P.Leelakrishnan, "Law and Sustainable Development" 9 Journal of Energy and Natural Resources Law 193 (1991)
31. UNCED, Rio Conference on Environment and Development, Environmental Policy and Law, 22/4 (1992) p.204.
32. Ayesha Diaz, "UNCED: Permanent Sovereignty Over Natural Resources", Environmental Policy and Law, 24/4 (1994) p.157 at p.158.

governing the economic and environmental behaviour of individuals and States in quest for global sustainability.³³ Unlike the Stockholm Declaration this Declaration speaks of a global partnership as essential for sustainable development,³⁴ and elucidates ways and means in which sustainable development can be achieved.³⁵ UNCED has put forward 'Agenda 21', an agreed programme of work during the period 1993-2000 and leading to the 21st century.³⁶

Thus it is true that sustainable development is not a fixed but an evolving concept.³⁷ Principles mentioned in the

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33. For the text of the Rio Declaration see Environmental Policy and Law, 22/4 (1992) p.224.
34. Id., Preamble, Principle 5, 6 and 7.
35. Ibid. Sustainable Development demands that developmental processes at every step should give due weight to environmental protection and avoid unsustainable patterns of production and consumption. Scientific and technological improvements, public participation enacting effective environmental legislation, environmental impact assessment and incentives are the strategies for the same. The policy should contain trade policies based on international concerns; exchange of information and special consideration for women and indigenous people and communities.
36. For details see, Environmental Policy and Law, 21/4 (1992) pp.208-223.
37. "Sustainable Development and International Law", Environmental Policy and Law, 24/5/1994, p.218 at 219. See also supra. n.9 at p.9. Brundtland Report held "Sustainable Development is not a fixed state of harmony but a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional changes are made consistent with future as well as present needs".

context of sustainable development originate in various areas of international law, such as human rights, economic law and environmental law.³⁸

Sustainable Development and Industry

Industrialisation has undergone transformation in several aspects.³⁹ International trade in manufactured goods has grown consistently. Initially, industrial pollution was thought to be significant in creating localized problems only. Indiscriminate industrial expansion after the second World War without much awareness resulted in problems like the Los Angeles Smog; death of Lake Erie and the Minamata incident. Thus started the era of enforcement policies aimed at reducing environmental problems and promoting sustainable development. This included use of regulatory measures and incentives, development of technologies to reduce pollution as well as waste recycling and reuse.

Industrial development should be sustainable. This requires ~~or~~ regulation of the use of natural resources for industrial purposes. Pollution of the natural resources in the course of manufacturing process should be controlled with adequate

38. Id., p.220.

39. Supra. n.9 at p.206.

measures. Otherwise the quality of the environment may be destroyed, resulting in global consequences like ozone depletion and global warming. It calls for greater use of environmentally clean and resource efficient technologies.⁴⁰

WCED formulated many strategies to make industrial development work in a sustainable manner. These strategies are:

- 1) Promote small scale, decentralized, widely dispersed industries. This will reduce levels of pollution and other impacts on the local environment.
- 2) Promote the use of new technologies. This helps improve productivity and energy use by providing incentives.
- 3) Integrate resource and environmental considerations into the industrial planning and decision-making processes of government and industry.
- 4) Promote Public participation and provide information by improving environmental statistics and data base relating to industrial activities.
- 5) Spread environmental awareness through educational programmes.

40. Supra. n.9 at p.5. Efficiency in resource use demands that they must generate less pollution and waste, they are based on the use of renewable rather than non-renewable resources and that minimize irreversible adverse impacts on human health and the environment. Also see supra. n.58 at p.147.

- 6) Promote workers participation through training and their involvement in the environmental decision making process.
- 7) Evolve regulations and standards to govern matters such as air and water pollution, waste management, occupational health and safety of workers and energy and resource efficiency of products and processes.
- 8) Fixability and compensation for any damage caused.
- 9) Have proper Environmental Impact Assessment conducted before installation as well as periodically.
- 10) Promote voluntary commitments through market forces.

These strategies look attractive. But they can promote sustainable industrial development only if the political will at the national and international level is environmentally friendly.⁴¹ What is called for at Rio, is an 'eco-industrial revolution', one that will not only preserve and extend the benefits created by the industrial revolution but also create a whole new generation of economic opportunity and readdress the gross imbalance between the rich and poor at the national and international levels.⁴²

41. UN/GA 49th Session First Part. UN Activities, Environmental Policy and Law 25/1/2 (1995) 2 at p.9. Stated by Nitin Deshai, Indian Delegate To UNCED.

42. A.O.Adede, "International Environmental Law from Stockholm to Rio - An Overview of Past Lesson and Future Challenges", Environmental Policy and Law 22/2 (1992) 88 at p.101.

Market forces and sustainable development

The task of sustainable development is carried further ahead by organising inter-organisational cooperative attempts, because sustainable development is a shared responsibility of all sectors of the society, - governments, consumers, the industry and the commerce section.⁴³ The Brundtland Report also calls for a strong cooperation involving industry as it has much of the technological competence to solve many of today's environmental threats. This conference recognised the shared responsibility of economic growth and environmental protection and put forward recommendations for achieving it.⁴⁴

Effective implementation of Sustainable Development depends on the efficient utilization of principles like public participation and providing the people with information.⁴⁵

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43. WICEM II (World Industries Conference on Environmental Management) - Final Declaration, Rotterdam, April 10.12, 1991, Environmental Policy and Law, 21/3/4 (1991) 179.
44. Ibid., The recommendations included global market approach to sustainable development, cooperative commitment to openness and dialogue, industry initiative to raise standards of environmental management and education, industry response to global climate issues and energy needs, cooperation in technology development and transfer and also recommendations to governments for implementation programmes.
45. Barbara Willing Hall, "Information Technology and Global Learning for Sustainable Development" 19 Alternatives 99 (1994) at p.105. See also supra. n.22.

Public Participation

Public participation and right to information are inextricable parts of the right to environment. It is because environmentalism is basically a social movement. The concept of participation is not new and the extent of participation depends on the degree and level of knowledge the people have regarding the programme. It includes factors like consulting while formulating the plans and the course of action to be taken, mutual respect and awareness. The idea is that development is for the people, by the people and it should be with their consonance in order to be sustainable. It must be participatory and community based. Public participation can take a variety of forms⁴⁶ and its benefits are also of varying nature.⁴⁷ The environmental sustainability of an industrial project depends also on the participation of environmental groups, human rights organisations and the public generally at the planning stage.⁴⁸

46. P. Leelakrishnan, "Public Participation in Environmental decision making", see also in P. Leelakrishnan et. al., (Eds.) Law and Environment, p.162.

47. Ibid.

48. "Environment, Economic and Development and Human Rights: A Triangular Relationship", Proceedings of the 82nd Annual Meeting (1988) Am. So. I.L. p.40 at p.48. John Cole, "Environmental Law and Politics, 4 N.S.W.L.J. 55 at p.68 (1981).

Because, industries once established become the part of the locality and affect the lives and livelihood of the local people. Protecting such a right at the international level is essential at this time of bilateral and multilateral agreements on many projects and issues including environmental projects having environmental impacts. Making citizens, especially the local, ready to accept such a project is crucial since, a protest in the later stage after much investment will only complicate the matter as is happening in many cases today. Access to information and participation of interested organs such as environmental and human rights organisations can avoid such consequences and even compromise with the locals by providing them with enough information on the matter. The right to participation and information are concomitant to the enjoyment of the right to environment and recognized in many courts.⁴⁹ International forums have taken up these rights for discussion and emerging practice in this regard is formally recognised in the Rio Declaration.⁵⁰ While industrial projects are being designed, approved and implemented, these principles are of great significance and urgently to be translated into a reality.

49. For details see supra. n.46.

50. Rio Declaration 31 ILM at 878 Principle 10 "At the national level each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials activities in their communities, and the opportunity to participate in decision-making process. States shall facilitate and encourage public awareness and public participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy shall be provided.

It is a reaffirmation of the WCED call for greater public participation and free access to relevant information to be promoted in the decision making process on environment development issues,⁵¹ OECD explicitly recognized that,⁵²

"the potentially affected public has a right to be informed about the hazards to human health or the environment, including property, which arise from accidents occurring at hazardous installations".

Though it is accepted with regard to hazardous installations, due weight is yet to be given so far as environmental matters other than hazardous ones are concerned.⁵³

The duty to give information and the opportunity for public participation has also been recognized in the process of impact assessment.⁵⁴ Thus, United Nations Economic Commission

51. Tokyo Declaration dated 27th February 1986 by WCED Principles to guide policy action for sustainable development.

52. 28 ILM 278 (1989).

53. At the global level, the UNEP has promoted information for the public with the APELL program, whose object, inter alia is to provide information, on the hazards involved in industrial operations and measures taken to reduce them. "Awareness and preparedness for emergencies at the Local Level: A Process Responding to Technological Accidents", U.N.Sales No.88 III D.3 (1988) as given in supra. n.2 p.286.

54. Convention on Environmental Impact Assessment in a Trans-boundary context, Feb.25, 1991 UN DOC.E/ECD/1250 (1991) in 30 ILM 800 (1991). This alertness towards hazardous industrial process was the immediate reaction to the chernobyle Nuclear Accident the impact of which was felt even at a distance of 1,000 km in Sweden.

for Europe required States to notify the public and to provide an opportunity for public participation in impact assessment of transboundary environmental harm.⁵⁵

Similarly the 'right to participate' provision in some of the earlier conventions and covenants are sometimes rightly and conveniently interpreted in the light of national enactments to protect the environmental right to participate for sustainable development.⁵⁶

Environmental Impact Assessment (EIA)

Environmental Impact Assessment is one of the strategies for sustainable Development which primarily involves efficient resource management and utilizes different criteria to achieve the goal. Industries are the foremost challenge in this task for practically implementing this process. Environmental Impact Assessment reflects an emerging worldwide concept that asks you to "look before you leap", EIA is the basis for a sound policy

55. Id., Art.3 para 8 and Art.4 para 2.

56. For instance International Covenant on Civil and Political Rights (reprinted in 6 ILM 68 (1967) Article 25 provides for a right to take part in the conduct of public affairs and European Convention For the Protection of Human Rights and Fundamental Freedoms, Article 6 provides for a right to a tribunal which permits indirect protection of the right to participation when it is recognised in municipal law. Thus in 'Zander case' the commission held that Art.6 can be invoked to protect his right against the water in the well being polluted as a result of another one dumping of industrial wastes in the neighbourhood.

for sustainable development and environmental protection.⁵⁷

The process involved is an evaluation of the future changes likely to be caused by the proposed projects, plans or policies to the quality of the environment.⁵⁸ It is a multi-disciplinary process requiring a variety of knowledge and expertise.⁵⁹

Environmental Impact Assessment requires preparation of detailed report of different aspects.⁶⁰ The process of EIA requires a systematic procedure which may follow different strategies and criteria.⁶¹ It may be confined to a primary environmental effect or it may extend to innumerable secondary effects

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57. John E. Bonine, "UNEP Environmental Impact Assessment Principles Development, Environmental Policy and Law 17/1 (1987) p.5.
58. P. Leelakrishnan, "Environmental Impact Assessment: Legal Dimensions", 34 J.I.L.I. 4 at p.541 (1992).
59. Ibid.
60. Robert E. Lutz, "An Essay on Harmonizing National Environmental Laws and Policies", Environmental Policy and Law 1 (1975) p.133 such as the need for and the environmental implications (potential environmental impacts) of the proposed project: alternative choices available to preserve or minimize harm etc.
61. Supra. n.58 at p.542. In U.S. the preliminary step is to classify projects on the basis of their impact. In Canada screening of projects is to find out their significant adverse effects and in England the process followed is to list out those projects which are subject to mandatory assessment.

and cumulative impact both of substantial significance.⁶² In industrial matters all these effects are likely to be found and therefore equally important.⁶³

The EIA process vary from nation to nation (whether they are industrialised or not). Broadly, they can be classified under two heads - (1) the statutory mandatory model and (2) the administrative discretionary model. In the mandatory model an impact assessment is a necessary item for approval though it may sometimes be lengthy and cumbersome, while in the discretionary model the strength is not from any law but from the discretionary powers of administration.⁶⁴

The best example of the model is found in the United States. There is a specific legislation mandating EIA before a federal action including industrial projects that significantly affect the

62. Ibid.

63. Thus the concentration of population in the vicinity or location of industry in the heart of a housing colony or green house effect in the long run are all environmental problems of industrialization and EIA is essential.

64. Id., p.544.

quality of human environment.⁶⁵ The Federal Environmental Assessment Review Process ensures the environmental impact assessment in Canada but the pattern followed is discretionary ministerial approach.⁶⁶ Though there is no legislation in Britain, a process where planning permission was already required, extra requirements have been built into the existing procedures by the Town and Country Planning (Assessment of Environmental Effects) Regulation 1988.⁶⁷ In all these cases the provision mandating public participation is the standard mark of a good EIA. India follows the British pattern. Notification issued under the Environment

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65. National Environment Policy Act 1969, S.102 (1) (e) "All agencies of federal government shall include in every recommendation or report on proposals for legislation and other major federal actions significantly affecting the quality of 'human environment' a detailed statement by the responsible official on - (i) the environmental impact of the proposed action; (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented; (iii) alternatives to the proposed action; (iv) the relationship between local short term uses of man's environment and the maintenance and enhancement of long term productivity and (v) any irreversible and irretrievable commitments of resources which would be evolved in the proposed action should it be implemented."
66. The Federal Environmental Assessment Review Process, 1973; see Davis S. Zalob, "Canada: EIA Developments Administrative and Legislative Approaches to Regulation" Environmental Policy and Law 4 (1978) p.45.
67. Town and Country Planning (Assessment of Environmental effects) Regulations, 1988 - Regulation 12, 13, 17 and 18. Being a member of EEC when there was an obligation to act in pursuance of the EEC Directive 85/337/EEC of 27th June 1985 the fear that a legislation at public planning inquiries made the government oppose the introduction of EIA in a legislation. The Directive is therefore an alternative through delegated legislation.

(Protection) Act⁶⁸ makes it necessary to have environment impact clearance before an industry is commenced or expansion of an industry is done. However though outwardly mandatory in form, it degenerates into discretionary model as public participation is not compulsory, visits to sites optional and inquiry discretionary.

The necessary impact of a project upon a neighbouring country being another dimension in the environmental decision making process, international agreement is essential to ensure environmentally sound and sustainable development. The trans-boundary nature of the effect of industrial activities is a problem already established beyond any doubt.⁶⁹ At the international level, the proposal is that the assessment could even be circulated or be available for comment from other nations⁷⁰ and thus establish extra territorial evaluation.

European Economic Commission took the initiative and sent a directive to member States to take effective measures for EIA since "the best environmental policy consists in preventing the

68. 1992 C.C.L.(III) p.59 and the final notification in 1994 C.C.L.(III) p.131.

69. For eg., Chernobyl accident, Los Angeles Smog, Trial Smelter cases etc are all instances of this transboundary effect.

70. Supra. n.60. For eg., In Wilderness Society v. Morton, 464 F.2d 1261 (D.C.Cir.1972) Canadians were recognised to have standing to intervene to inform the U.S.Court of their concern of the environmental impact of a proposed Department of Interior action. Many international and Regional organisations have supported this principle. For World Bank has a procedure for taking into account the environmental aspect of its development assistance programme and UNDP includes the assessment of environmental impacts in its policy making and programme development.

creation of pollution or nuisance at source rather than subsequently trying to counteract their effects".⁷¹ Whereas UN Economic Commission for Europe (ECE) stressed the importance of EIS in compliance with Principle 21 of Stockholm Declaration in the transboundary context,⁷² the Council recommends EIA for all land use and public works programme and projects which can degrade the quality of the natural or non-made environment.⁷³

WCED considered the importance of EIA and calls for national and international action plan to integrate sustainable development into their goals and to adopt principles to guide their policy actions. The need for assigning higher priority to environmental monitoring and assessment⁷⁴ is stressed. Apart from this, UNCLOS II[while dealing with the dumping of hazardous waste at sea particularly in coastal areas requires a prior impact assessment before the issue of a permit and by requiring to monitor the conditions of the sea and to keep records of all dumping.⁷⁵ The meeting of experts sponsored by UNEP advanced

71. 85/337/ECC/27th June 1985.

72. "Draft Convention for the ECE Region on Reduction of Emissions causing Transboundary Air Pollution," Environmental Policy and Law 4 (1978).
ECE is one of the four regional Economic Commissions of U.N. Economic and Social Council. (Robert E. Stein, ECE Symposium on Problems Relating to Environment, 66 A.J.I.L. 118 (1972)).

73. Ibid.

74. Supra. n.12 at p.222.

75. Patricia Birnie and Alen Boyle, International Law and the Environment, (1992) 327 at p.328.

this process for sustainable development further.⁷⁶ Its objective is to ensure environmentally sound and sustainable development.⁷⁷ EIA is its goal, to be promoted by appropriate national procedures and consultation and exchange on trans-boundary effects. The principles laid down taken into consideration.

Liability for industrial disasters

Liability arises when a lawful but dangerous or ultra-hazardous activity gives rise to disastrous consequences.⁷⁸ It denotes imposing responsibility on an identifiable party for a particular event, it is an essential law enforcement measure with the central purpose of either penalising or deterring the polluters or potential polluters by the weapon of compensation or restitution.⁷⁹ In environmental pollution,

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76. John E. Bonine, "UNEP Environmental Impact Assessment Principles Development" Environmental Policy and Law 17/1 (1987), p.5. The Working Group of Experts on Environmental Law consensus at a week long session in Geneva from 12-16 January, 1986 on proposed Goals and Principles of EIA (UNEP/WG 152/4, Annex) UNEP Governing Council considered the recommendation at its meeting in Nairobi, in June 1987.
77. Ibid.,
78. Environment, Economic Development and Human Right? A Triangular Relationship Proceedings of the 82nd Annual Meeting (1988) Am. So. I.L. p.40.
79. Sam Blay and Julia Green, "The Development of a Liability Annex to the Madrid Protocol" (Antarctic Treaty), Environmental Policy and Law 25/1/2 (1995) p.24.

liability may arise from an accidental pollution or otherwise.⁸⁰ Environmental pollution has no national boundaries and industrial activities are to continue though the adverse consequences of its effects on the environment are many. The imposition of liability reduces the potentiality of its harm.⁸¹ Liability is imposed by compelling polluters to compensate the victims of pollution.⁸² In short it is an incentive to control pollution.

At the national level liability for torts stands used extensively for combating industrial pollution. The damages are measured according to what the plaintiff has lost.⁸³ When reasonable foreseeability is the test applied in determining liability for nuisance, the principle of strict liability got strong footing for dealing with environmental harms generally.⁸⁴ The scope of this rule is established through judicial confirmation from time to time in almost all countries.

80. Such as damage caused by emission affecting air quality presence of hazardous substances in soil, pollution of ground and surface waters etc.

81. L.F.G. Goldie, "Liability for Damage and Progressive Development of International Law", 14 I.C.L.Q. 1221 (1965).

82. Melissa Poale, "Liability for Environmental Damage in Antarctica", 10 Journal of Energy and Natural Resources (1992).

83. Jenny Steale, "Remedies and Remediation: Foundational Issues in Environmental Liability", 58 M.I.R. 615 (1995). See also Rogers (Ed.) Winfield Jolontz on Tort (14th Ed. 1994) pp.669-70, 673-674.

84. V.K.Beenakumari, "Environmental Pollution and Common Law Remedies", in Law and Environment, op.cit., p.103.

The difficulty in establishing liability of the violators of environmental quality and of quantifying the damages compelled environmentalists and pollution victims to change their remedies from tort to writs.⁸⁵ Thus the liability to pay compensation for violation of fundamental right to live do exist side by side with the common law remedy and is used extensively by the apex courts.⁸⁶ Environmental statutes deal with criminal liability.⁸⁷ It is deterrent in nature and is in the form of sanctions for violation of laws.

The national scenario of liability is thus clear. It can be a civil liability for damages under common law or a liability towards the society in the public interest or a statutory criminal liability. When the first two are liabilities rather to compensate on quantified loss than on replacement costs, the third one is a deterrent and a guarantee to protect the environment and enforcing statutory provisions.

The problem of State responsibility for extra territorial damage emerged after the industrial revolution. Accidental spillage of oil, disasters consequent to nuclear power, the trans-boundary effect of air pollutants and pollution of inter-state

85. G.Sadasivan Nair, "Environmental Offence: Crime Against Humanity", in P.Leelakrishnan et.al., (Eds.) Law and Environment, 184 at p.186.

86. See for details Chapter 7 infra, pp. 261-265

87. For example see Water (Prevention and Control of Pollution) Act 1974 Chapter VII (section 41-50) and Air (Prevention and Control of Pollution) Act 1981 Chapter VI (sections 37-46).

waters are all instances that attract liability at the transnational level. Movement of hazardous industrial waste is a new addition. Establishing liability is more difficult at the international level than at the national level.⁸⁸ Liability at the international level may be the liability against a State or against industrial corporations, public or private, for the activities within or beyond national territory that result in accidental damage to transnational environment.⁸⁹ These transboundary problems of environmental damages form the subject matter of customary international law and a number of Treaties and Conventions despite the fact that the national sovereignty over its resources does exist.⁹⁰

Earlier the international liability of States was based on the principle of good neighbourliness. But this liability was limited to activities under the effective control of the State where the harm originated. The responsibility of the State of origin to exercise due diligence to assure that the

88. Supra. n.82 at p.249.

89. Gunther Handl, "State Liability for Environmental Damage", 74 A.J.I.L.525 (1980). See also Art.10 of 1960 OECD Convention on Third Party Liability in the field of Nuclear Energy.

90. Supra. n.87. See also Bharat Desai, op.cit., p.16. One of the earliest instruments in regulating transboundary issues is Boundary Waters Treaty, 1909 between Canada and U.S.

activities within their territories were operated in conformity with internationally accepted safety standards is stressed by the Arbitral Tribunal in Trial Smelter case as early as in 1935.⁹¹

Moreover, the liability was dependent on the actual damage caused and if the State of origin knows the risk, lack of ability to control will not be an excuse for such liability.⁹² This international liability took a new turn when the Stockholm Conference laid down the principle of responsibility to ensure that activities do not cause damage to areas beyond the limits of national jurisdiction. Stockholm Declaration thus affirmed the international liability resulting from activities both within the jurisdiction of State as well as those under their control.⁹³ Later Treaties and Agreements confirmed this liability of controlling States.⁹⁴ Thus in compliance with the Stockholm Declaration there evolved several provisions on international liability under different international documents dealing with environmental protection.⁹⁵

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91. Trial Smelter Arbitration Decisions. 35 A.J.I.L. 684 (1941). It was confined to the question of liability and not the wider problem of prevention directly.
92. Helsinki Rules, 1966 on the uses of Waters and International Rivers recognised the preventive measures of trans-boundary water pollution. It required the States to prevent water pollution.
93. Ibid.
94. For details see infra, Chapter 10, pp. 356-360
95. Ibid.

Apart from U.N.action on international liability, Regional Organisations like OECD and European Community also came out with recommendations and principles on international liability for industrial pollution.⁹⁶

Principle of Liability at present

The doctrine of sustainable development promoted through the Brundtland Report also brought to light the environmental hazards other than the pollution hazards. The need for protecting the weaker sections and global commons got momentum in this new direction of sustainable development and principle of liability has put on the new form of joint liability for environmental harms. EC incorporated in its Green Paper, Joint Compensation Schemes⁹⁷ along with the civil liability. The credit of joint compensation is that it is associated with restoration of the material environment while liability rules are criticised as setting the price of an entitlement to pollute.⁹⁸ Implementing

96. For example OECD laid down Recommendation on Principles concerning Transfrontier Pollution 1974, the first document to deal exclusively the issue of international liability.

97. Supra. n.83 at p.615. Joint liability schemes are envisaged by the commission as providing funds, for remedying environmental damage whereas civil liability is preoccupied with individual responsibility.

98. Id., p.629.

the Principles laid in the Rio Declaration⁹⁹ nation States have started incorporating liability within the national laws. National laws for environmental protection expanded the principle of liability and "polluter pay principle" is applied extensively to enforce the liability of a polluter.¹⁰⁰

In India the environmental statutes did not contain any provision dealing with the liability of the polluter to compensate for damages. But Bhopal Tragedy was an eye opener to this deficiency and Public Liability Insurance Act 1991 now provides for interim compensation for the victims of industrial pollutions other than the workers.¹⁰¹

99. "Rio Declaration on Environment and Development" Principle 13, Environmental Policy and Law 22/4 (1992) p.268.

100. Supra. n.97 at p.618.

101. For detailed discussion on Public Liability Insurance in India see infra, Ch.4 pp. 144-150

CHAPTER III

INDUSTRIAL POLICY AND PLANNING

The proper functioning of the regulatory mechanism depends on the policy and planning adopted by the government. Any piece of legislation cannot achieve its objective unless it works in the background of appropriate policies and proper planning. Policy may be defined as a course of action adopted and proved as advantageous or expedient.¹ Do our industrial policies give importance to the need for considering environmental matters while the plans are derived?

Our's is an agricultural nation and industrialisation is a policy adopted for meeting the needs of our ever increasing rate of demographic growth atleast to the minimum.² The post-independence era in our country started with ventures of varying types. This included among others, efforts to solve the economic problems by developments in both agricultural and industrial spheres and resolutions stating "Industrial Policy" were passed from time to time.

An evaluation of the first two Resolutions show that the ill-effects of industrialization being least evident at that time, none of them envisaged policies to deal with environmental

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1. Lionel Read Q.C and Martin Wood, "Policy Law and Practice" in (1994) J.P.L. 24/5/95.
 2. Industrial Policy Resolution 1948, Appendix 2.1 as given, in NABHI's (Ed.) New Industrial Policy and Procedure (1995) at p.30.

protection.³ Emphasis then was on increasing production and its equitable distribution for attaining sufficiency in future.⁴ Environmental concern is only the after effect of international concern for environmental protection and did not receive a priority even in the Policy Resolutions of 1973 and 1977.⁵ But at the same time the 1977 Resolution is noteworthy for the concern for rapid deterioration in the living conditions especially for the working classes in the larger cities and the attendant problems of slums and environmental pollution.⁶ The Government imposed therefore restrictions on the issue of licences to industries on the basis of location.⁷ This policy

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3. Industrial Policy Resolution 1948 and 1956 as given in NABHI's (Ed.) *op.cit.*, pp.30-40.
 4. *Ibid.*
 5. *Id.*, pp.41-56. Industrial Policy Statement 1973 and 1977.
 6. Industrial Policy Statement 1977 in NABHI's *op.cit.*, p.53 (para 31). This is the first instance where the Government took into consideration the environmental hazards of industrialisation.
 7. *Ibid.* The Government decided that no more licences should be issued to new industrial units within certain limits of large metropolitan cities having a population of more than one million and urban areas with a population of more than five lakhs as per the 1971 census. It also requested the State Government and financial institutions to deny support to new industries in these areas such as those which do not require industrial licence. The Government is also to consider providing assistance to large existing industries which want to shift from congested cities to approved backward areas.

statement also showed particular concern for the utilization of the vast resources with man-power, the most valued asset, as the centre of planning and implementation of projects and schemes.⁸

Industrial Policy in the Eighties

The Industrial Policy Statement, 1980,⁹ is of great significance. It is the first step in the realm of environmental protection incorporating explicitly the industrial policy in the environmental perspective. The policy ranges from promoting village industries in rural areas without disturbing the ecological balance¹⁰ to energy conservation,¹¹ pollution control¹² and preservation of ecological balance.¹³ It also ensures a

8. Id., p.46.

9. Industrial Policy Statement, 1980 in NABHI's, op.cit., pp.56-64.

10. Id., p.59 (para 17).

11. Id., p.62 (para 28).

Government acknowledged the lack of enough attention to the effects of industrial growth on environment and pollution of air and water. The policy is to give special assistance including finance on concessional terms to such industrial processes and technologies as would aim at optional utilisation of energy or the exploitation of alternative source of energy.

12. Id., p.62, (para 29). In order to bring pollution under control, Government proposed special assistance on appropriate terms. It also decided to extend soft loans to activities related to energy conservation, exploitation of non-traditional sources of energy like solar energy and control of water and air pollution.

13. Id., p.62, para 30. In pursuit of this policy and with a view to encourage the dispersal of industry, steps are taken to prevent the growth of industry, in the metropolitan cities and larger towns.

comprehensive system of monitoring the implementation of the scheme.¹⁴ For this purpose, it proposed to build up a Data Bank on the progress of various licensed/registered investment schemes. The policy also aimed boosting the development of small scale industries to ensure rapid growth.¹⁵

It encouraged the dispersal of industries by giving special assistance and initiated steps to prevent the growth of industry in the metropolitan cities and towns.¹⁶ At the same time, the Government wanted to implement this policy with the least difficulties and detriment to the basic objective of industrialisation and economic progress.¹⁷ The Environmental Guidelines for Industry¹⁸ acknowledged that location of the industries without any environmental consideration would result in imminent and immense environmental consequences.¹⁹ It highlighted the policy measures for location of industrial sites,²⁰

14. Id., p.62, para 33.

15. Id., para 12.

16. Id., para 30.

17. Id., para 31.

18. The Guidelines brought out in August 1985 by the Department of Environment in collaboration with the Department of Industrial Development. For details see NABHI's, op.cit., pp.287-290.

19. Id., para 1.1 - 1.2. At present industries are being located on the basis of raw material availability and access to the market transport facilities without adequate attention to environmental considerations.

20. Id., para 1.4 - 1.8. The stipulations envisaged for quality standards alone may not be sufficient to meet the exigencies resulting from wrong siting of the cumulative effect of a number of industries at a particular place. Therefore, the policy includes a procedure for the select group of 20 industries notified by the Department of Industrial Development.

areas to be avoided,²¹ siting criteria²² etc. The State Department of Environment was designated as authority for the approval of project sites from environmental angle.²³ Thus a formalized procedure was stipulated for site selection from the environmental angle with respect to those projects listed in Appendix II

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21. Id., para 2.2. Industrial sites shall maintain the following distances from the areas listed.
- (a) Ecologically or otherwise sensitive areas: at least 25 km, depending on the geo climatic conditions, the requisite distance shall have to be increased.
 - (b) Coastal areas: at least $\frac{1}{2}$ km from high tide lines.
 - (c) Flood plain of the Riverine Systems: at least $\frac{1}{2}$ km from any highway or railway.
 - (d) Transport/Communication system: at least $\frac{1}{2}$ km from highway or railway.
 - (e) Major settlements (3,00,000 population) At the time of siting of the industry, if any major settlements notified limit is within 50 km, the spatial direction of growth of the settlement for at least of decade must be assessed and the industry shall be sited at least 25 km from the projected growth of boundary of the settlement.
22. Id., para 2.3. The industries are required to be sited striking a balance between economic and environmental consideration considering the following factor such as the type of land acquired (such as it should not be conversion of forest for non-forest purpose or conversion of prime agricultural land) and should be sufficiently large with adequate space for environmental facilities, green that shall be provided ($\frac{1}{2}$ km wide around the boundary unit of industries. For industry having odour it shall be measuring stations with 120° angle between stations.)
23. Id., para 1.7.

of the Guidelines.²⁴ Apart from this the Department of Industrial Development tried to ensure that ecologically fragile regions in the country are protected from adverse effects of industries.²⁵ It therefore identified a list of districts as totally protected and also those districts where non-polluting industries could be located. They have also identified a list of industries which could be set up in these districts in various States and Union Territories (List I, II and III respectively).²⁶

New Industrial Policy

This new policy necessarily has to take in the changes in the environmental perspectives at the global level and thus to induce weaving the environmental safety mechanisms in our industrial area. Liberalisation is the key feature of the new industrial

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24. Id., para 1.6 or (1985) 1 Comp.L.J. p.14.
According to this for the select group of industries, (1) the letters of intent should be converted to industrial licences only after it has been confirmed by the State Director of Industries that the project has been approved from environmental angle by the competent authority.
2) the entrepreneur commits both to the State Government and Central Government that he will install the appropriate equipment and implement prescribed measures for the prevention and control of pollution.
3) the concerned State Pollution Control Board has certified that the proposal meets with the environmental requirements.
25. Identification of Protected Districts/non-polluting industry districts and the industries that can be considered for setting up in these districts.
F.No.10/157/85 LP, dated 17th Feb., 1987 (Government Ministry Department of Industrial Development) in (1987) 3 Comp.L.J. p.52.
26. Ibid.

policy²⁷ of 1991. Industries are classified mainly into three categories namely:

- 1) industries reserved for the public sector;²⁸
- 2) industries in respect of which Industrial Licensing is compulsory;²⁹ and
- 3) small scale industries.³⁰

It has also abolished some of the regulatory machineries as part of liberalisation.³¹ However, for certain industries

27. New Industrial Policy of 1991. Gazette of India dated 25th July 1991 Extra-ordinary Part II Sec.3 or (1991) 2 Comp.L.J. p.57 or Handbook of Industrial Policy and Statistics (1995), (Office of the Economic Adviser, Ministry of Industry, Government of India, New Delhi) Press Note No.12 of 1992 dated 26.6.1992, Press Note No.2 of 1992 dated 14.2.1992, Press Note No.3 dated 26.3.1993 and No.4 dated 28.4.1993. Thus Industrial Alcohol covered under hazardous chemicals, Motor Cars, white goods and raw-hides and skins (entry 9) got delicensed (entries 15, 11 and 18 respectively).
28. Id., p.122 Schedule I. There are six industries reserved for public sector. The number has been reduced from 17 in 1956 to 8 in the New Industrial Policy from which is again deleted items No.5 and 6 vide Press Note No.3 (1993 series).
29. Id., p.123 Schedule II.
30. Id., p.128 Schedule III.
31. The New Industrial Policy of 1991 abolished the Delicensed Industries Registration (DIR) Scheme, the Exempted Industries Registration (EIR) Scheme and the requirements for registrations with the Directorate General of Technical Development (DGTD). The Statement of changes in Procedure for Industrial Licensing (1991) 2 Comp.L.J. p.110 at 111.

there is compulsory licensing³² based on concerns relating to security and strategic issues, social and health reasons, safety and environmental issues, manufacture of products of hazardous nature and articles of elitist consumption.³³ The Policy also pursues to promote spreading of industrialisation to backward areas of the country through appropriate incentives, institutions and infrastructure investments.³⁴ The Policy states the Government belief that no small section of society can corner the gains of growth leaving workers to bear its pains. It, therefore, aims at promoting worker's participation in the management.³⁵ Its main objective includes, among other things, maintaining a sustained growth in productivity tempered by the need to preserve the environment and ensure the efficient use of available resources.³⁶

32. Id., p.106. Annexure II. Industries requiring compulsory licensing have been notified in the Indian Trade Classification System, published by the Ministry of Commerce, Directorate General of Commerce Intelligence and Statistics. NABHI's New Industrial Policy and Procedure, op.cit., p.12 (para 23).

33. Supra. n. 27.

34. Id., para 11.

35. Id., para 16.

36. Id., para 17.

Industrial Policies and Environmental Protection

Pollution problems arise not because of industrialisation per se, but because of their wrong location.³⁷ Location of industrial undertaking is made a condition for eligibility for the exemption from registration and licensing under the Industries (Development and Regulations) Act, 1951.³⁸ Government has issued several notifications to this effect.³⁹ These notifications provided that the exemption clause under IDRA can be availed only if industrial undertaking is not located or proposed

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37. For example, planning of residential areas quite adjacent to industrial areas without creating green belts around industries aggravate the condition. V.P.Dubey, "Cities and Human Environment", (A Study of Ludhiana City) in R.K.Sapru (Vol.I) op.cit., p.7.
38. Industries (Development and Regulations) Act, 1951
 Sections 10, 11, 11A and 13.
 Section 10 - Registration of existing industrial undertaking;
 Section 11 - Licensing of new industrial undertaking;
 Section 11A- Licensing for producing or manufacturing new articles;
 Section 13 - Further provisions for licensing of industrial articles.
39. Notification No.238 (E) 1 DRAO 76 dtd.25th March 1976;
 (2) S.O.201 (E) dated the 18th March, 1985;
 (3) S.O.140 (E) dated 31st March, 1986;
 (4) S.O.483 (E) dated 8th August, 1986;
 (5) S.O.834 (E) dated 11th Nov., 1986;
 (6) S.O.872 (E) dated 8th Oct., 1987;
 (7) S.O.629 (E) dated 30th June, 1988 and
 (8) S.O.869 (E) dated 25th Sept., 1989.
 As given in NABHU's, op.cit., pp.67-75.

to be located within the thickly populated urban areas.⁴⁰

After the new Industrial Policy 1991 came into being there is a new notification in which restriction on location of industries is confirmed.

The present policy is that in locations other than cities with a population of more than one million there is no requirement of obtaining industrial approval from the Central Government except for the industries under compulsory licensing.⁴¹ In cities with population more than one million, industries other than those of a non-polluting nature such as electronics, computer software and printing, will be located outside 25 km of the periphery. A flexible policy would be adopted in respect of cities

40. Ibid. or see (1988) 3 Comp.L.J. p.65.

Thus the industrial undertaking should not be located or proposed to be located:

- (i) within the standard urban area limit as determined in the census of India, 1981, of a city having a population of more than 10 lakhs or
- (ii) within the Municipal limits of a city with a population of more than 5 lakhs, as determined in the said census.

Notification S.O.No.629 (E) further specified that location as (a) 50 kms from the boundary of the standard urban area limits of any cities having a population of more than 25 lakhs according to 1981 census or (b) 30 kms in the case of a city having a population 15 to 25 lakhs and (c) 15 kms if the population is between 7.5 - 15 lakhs.

41. Supra. n.31 para 39.

with population more than one million which require industrial regeneration.⁴² Zoning and land use Regulation and Environmental legislation regulating industrial locations are to be there in addition to this.⁴³

Environmental Regulations and Location of Industry

In the wake of the New Industrial Policy and the greater concern for environmental protection gaining momentum after the Rio Declaration, the Government laid down its environmental policies separately and more explicitly.⁴⁴ This policy statement on Environment and Development identified incorrectly sited industrial projects and other developmental projects as an ostensible environmental problem.⁴⁵ It stressed that environmental considerations should be integrated while encouraging industrial growth. Action points in this regard include location of industries as per environmental guidelines.⁴⁶ Apart from this, specific policy statement for abatement of Pollution is laid down⁴⁷ aiming towards actual implementation by shifting emphasis from defining objectives

42. Ibid.

43. Ibid.

44. National Conservation Strategy and Policy Statement on Environment and Development. (1992) 2 Comp.L.J. (Statutes) p.159.

45. Id., para 2.12. For, on the one hand, it leads to over-congestion and over-population in the urban centres and on the other hand, it results in the diversion of population and economic resources from the rural areas.

46. Id., para 6.5.

47. Policy Statement for Abatement of Pollution (1992) 2 Comp.L.J. (Statutes) p.81.

for each problem area.⁴⁸ This policy aims at evolving mechanisms to reduce local concentration of pollutants in complex industrial sites and developing strategies for areas with high pollution loads. New units are required to comply with location specific standards including matching waste generators with waste buyers with the objective of solving waste disposal.⁴⁹

As an effective waste management method, recycling has to be promoted. Industries which can use byproducts and wastes of other industries as raw material should be permitted to be located to the latter.

Industrial Licensing

Licensing is a policy adopted by the State in public interest requiring the owner of every existing or new industrial undertaking to register it in the prescribed manner.⁵⁰ Industries (Development and Regulations) Act 1951 contains the licensing provisions and procedure for the grant of licence. Under this Act Central Government has power to exempt industries from this licensing in special cases.⁵¹ This exempting power is limited by conditions including the location of the industry from an environmental angle.⁵² But, the new Industrial Policy of 1991 came with policies for liberalisation and delicensing industrial undertaking with a view to encourage investment in wide ranging areas. Thus

48. Id., preamble.

49. Id., para 4.4.

50. For details see infra, Chapter 5, pp.171-178

51. Supra. n.38.

52. Supra. n.39.

the items reserved for public sector has been further pruned⁵³ and licensing is made compulsory only for a short list of items based among other things on environmental concern.⁵⁴ Licensing took a new turn in the environmental perspective in order to compromise the industrial policy with the international attempts to evolve global and national policies for protecting the environment.⁵⁵ Thus the Government envisaged an environmental clearance for certain industrial activities in addition to the one prescribed under the Coastal Regulation Zone.⁵⁶ The environment clearance notification makes certain unprecedented provisions. Expansion or modernization of any activity is prohibited if pollution load is to exceed the existing one and they can be allowed only with an environmental clearance.⁵⁷ The new projects

53. Supra. n.28.

54. Supra. n.29.

55. The Hindu, Survey of the Environment 1992 (1992) p.5. The concept of growth at all costs which governed development policies around the world until the Eighties is being replaced in the Nineties with the idea of sustainable development. It is now clear that national development patterns and global environment problems are inextricably linked.

56. For details see infra, Chapter 4, pp. 137, 138

57. Id., p.133. Schedule I gives the list of projects Requiring Environmental Clearance from the Central Government. It contains 16 items. To name a few such as: Chemical fertilizers, pesticides, asbestos and asbestos products, According to this notification it will not apply to any items such as ports, harbours, airports, bulk drugs and pharmaceuticals and mining project (Entry 3, 18 and 20 of the Schedule I) to be located or proposed to be located in the areas covered by specific notifications.

listed in the notification also should get clearance if it is to be undertaken in any part of India. The clearance is by the Central Government in accordance with the procedure specified in the notification.⁵⁸

These regulations are in addition to the Government restrictions on the handling of hazardous wastes⁵⁹ and hazardous micro-organisms⁶⁰ under the Environment (Protection) Act, 1986.

Five Year Plans and Industrial Planning

As have been seen the National Planning Commission, the product of 1st Industrial Policy Resolution⁶¹ did not project an environmentally benign plan in the first three attempts made within a period of a decade and half. Though the process of planned economic development was adopted, the policy followed did not envisage counter actions against an environmentally malign programmes. Thus, when the First Year Plan sought to rehabilitate the economy from the ravages of war, famine and

58. Id., para 2.

59. Infra, Chapter 4 pp. 125, 126

60. Id., pp. 132, 131

61. Industrial Policy Resolution, 1948 in NABHI's op.cit., This policy resolution identified plan and integrated effort over the whole field of national activity as a necessity to meet the prevailing problems of the country just after independence. The Government therefore proposed to establish a National Planning Commission to formulate programmes of development and to secure their execution. Id., para 1.

partition, the Second Plan sought to carry the process further by giving high priority to agriculture.⁶² But at the same time it recognised that Indian economy could not proceed very far within the bounds of agrarian economy and industrialisation is unavoidable.⁶³ The industrial programmes for the Third Plan was formulated in this perspective and laid the foundation for rapid industrialisation.⁶⁴

Fourth Plan

Till the Fourth Five Year Plan, the issue of environment and development did not receive any significant recognition in the planning process.⁶⁵ Fourth Five Year Plan dealt with abatement of river and stream pollution caused by rapid growth of industries and urban areas.⁶⁶ It realised the difficulties of locating industries without consulting Town Planning authorities.⁶⁷

62. Planning Commission, Government of India, (1956)
Second Five Year Plan - 1956-61, p.2.

63. Ibid.

64. Chapter XIV - "Industries and Minerals" in Planning Commission, Government of India, Fourth Five Year Plan - A Draft Outline, p.249.
The emphasis was on machine building programmes and acquisition of related skills, technical knowhow etc. The objective was to achieve self-reliance by strengthening industrial base.

65. It is during this plan period that the first environmental legislation got enacted in view of the global level attempts to protect the environment.

66. Id., p.351. In this plan, under Ch.XVIII, "Health, Family Planning and Water Supply" para 53 states "Water Pollution".

67. Ibid. As these are also major sources of drinking water, there is an immediate need for abatement of river and stream pollution by proper control at the State, Regional and Central levels.

It also kept in view the objective of development of backward regions and dispersal of industries.⁶⁸ At the same time, in the industrial sector, the main objectives of economic planning was to achieve self-reliance by the beginning of the Sixth Plan.⁶⁹ It therefore recognised the necessity of ensuring planning. Authorities association in the decision regarding the location of industries.⁷⁰ There was no apprehension for achieving economic development through environmentally viable planning.

Fifth Plan

The objectives in view of this plan were removal of poverty and achievement of self-reliance.⁷¹ The strategies relates to growth in agriculture, energy and critical intermediates and creation of employment opportunities. The only environmentally sound programme is the "Long term Perspectives for Non-Renewable Resources".⁷² This is because of the realisation that in this industrial age, the elasticity of mineral consumption exceeds regeneration capacity has already been flashed.⁷³ The plan further proceeded with the programme of enhancing the number, volume and range of production of small scale industries⁷⁴ and also establishing Industrial estates.⁷⁵

68. Id., p.254.

69. Id., p.116.

70. Id., p.358.

71. Planning Commission, Government of India, The Fifth Five Year Plan (1974-79) p.5.

72. Id., Chapter II para 2.20.

73. Id., para 2.21.

74. Id., Chapter V para 5.82.

75. Id., para 5.84.

Sixth Plan

The realisation that environment should form a crucial guiding dimension for plans and programmes in each section led to devoting an entire chapter on "Environment and Development" in the Sixth Plan.⁷⁶ The idea already budded in the Fourth Plan and nourished in the Fifth Plan bloomed into glaring propositions of the State of Environment and programmes to meet the exigencies in a sustainable line.⁷⁷ It has at the outset identified the broad categories of environmental issues. Poorly planned development projects and programmes without a long term concern in our haste to overcome poverty and underdevelopment aggravated the adverse consequences of rapid industrialisation policies.⁷⁸ Thus absence of sustainable development is the root cause of industrial environmental problems.

Defining environmental pollution in a vivid language,⁷⁹ the plan at the outset pinpoints the areas of environmental concern.⁸⁰ It also projected the absence of environmental educa-

76. Chapter XX, "Environment" in Planning Commission, Government of India, The Sixth Five Year Plan (1980-85) p.343.

77. Id., p.346.

78. Ibid.

79. Ibid. Pollution refers essentially to a process by which a resource (Natural or manmade) is rendered unfit for some beneficial use due to physical, chemical or biological factors, of the various kinds of pollution (air, water, land, noise, radiation and odour).

80. Id., para 20.22 to 20.28.
Such as water pollution, air pollution, land pollution and noise pollution.

tion and adequate environmental impact assessment as the added reasons resulting in inadequate perception of the extent of and potential of hazards from pollution problems in India.⁸¹ Therefore, the environmental programmes should necessarily have an environmental impact assessment and proposed that an agency should be entrusted the task of monitoring.⁸²

The plan envisaged the setting up of an Environmental Information System for the collection, processing and dissemination of environmental information that will aid planners, decision makers and researchers.⁸³ Programmes to increase public awareness and public participation, research and training etc are to be launched.⁸⁴ For this Eco-Development force consisting of Ex-Servicemen and Eco-Development camps organised by Department of Environment are also proposed.⁸⁵

Thus the Sixth Plan has successfully brought to light the significant areas of environmental concern and proposed

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81. Id., para 20.29 and 20.35. It has identified the problem areas such as thermal or hydro-power generation, mining industry, agriculture, human settlement etc.
82. Id., para 20.37, 20.46 and 20.57.
83. Id., para 20.47 and 20.48.
84. Id., para 20.49; 20.50 and 20.51 etc.
85. Id., para 20.52 and 20.53.

programmes for harnessing the same.⁸⁶ It aimed at starting from the grass roots when it proposed the constitution of Rural Environment Cells clustered around Regional Environmental Centres to serve as eyes and ears of the Department of Environment.⁸⁷ But a critical evaluation of this Sixth Five Year Plan in the light of the programme actually launched shows only a partial fulfilment of these recommendations.

1980s can be said to be a period of transition so far as environmental protection is concerned. Significant changes can be noted in the environmental perception reflected in the planning policies and legislation.⁸⁸ Administrative bodies are

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86. Supra. n.80. Water Pollution, Air Pollution, Land Pollution and Noise Pollution constitute the main tasks to be tackled by programmes like proper environmental impact assessment, environmental education public participation, environmental information and guidelines, research and training, environmental quality monitoring etc.
87. Id., para 20.55. These Rural Environmental Cells are to be set up with the cooperation of State and District authorities.
88. Id., para 20.38 Government of India, Constituted a High Power. Tiwari Committee Report, submitted in 1980 identified the environmental problems. Department of Environment constituted upon the suggestions from the committee, Industrial Policy Statement 1980 and Five Year Plan 1980-85 projected environmental concerns, Air Act, 1986 and Forest Conservation Act, 1980 were legislated.

constituted for fixing standards for the quality of water and air as well as for monitoring and implementing pollution control measures.⁸⁹ Minimal national standards (MINAS) for pollution discharges for some selected industries have been formulated and control measures are being implemented in a phased manner.⁹⁰

The review of the progress made by the Seventh Plan elucidates the actions taken in the direction during the Sixth Plan.⁹¹

But at the same time, the assessment done on the overall performance of the Sixth Plan is silent about the achievements in the field of environment except the eradication of poverty and population.⁹² While talking about the sustained industrial

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89. Central Pollution Control Board and the State Pollution Control Boards constituted under the Water (Prevention and Control of Pollution) Act, 1974 entrusted the task of air pollution control as well under the Air (Prevention and Control of Pollution) Act, 1981.
90. Annual Report of the Central Board for Prevention and Control of Pollution (1978-79) pp.50-53.
91. Chapter I "Planned Development: Retrospect and Prospect" Planning Commission, Government of India, The Seventh Five Year Plan (1985-90) p.1-7.
92. Review of Progress under Chapter 18 "Environment and Ecology" states in detail the action initiated during the Sixth Plan 18.8 - 18. 16

transformation in India, it seems to have considered only the economic power concentration - the introduction and absorption of new technology for economic sustenance.⁹³ Though Environmental Impact Assessment was hailed as an integral part of the entire industrial planning process, the review is silent about the goals attained and policy adopted in the direction.⁹⁴

The Seventh Five Year Plan, any way, justified the deficiencies by stating that sixth plan gave nucleating activities to receive greater impetus in terms of investment etc in the 7th Plan.⁹⁵ So the significance of the Sixth Plan in the environmental planning is that it has endeavoured a strong environmental framework to be stuffed with appropriate provisions gradually.

Seventh Plan

At the outset, the programs of development during the Seventh Plan was set against the perspective of next 15 years aiming to make India a modern technologically progressive

93. Id., p.6.

94. Supra. n.76 para 20.

95. Id., Chapter 18 para 18.22. In order to ensure that plans for development in all sections are in harmony with the goal of maintaining the health of life-sustaining ecosystems and other environmental resources, the process of EIA will be made an integral part of the entire planning process".

economy⁹⁶ with long-term development strategy.⁹⁷ The basic principle of sustainable development encouraged the formulation of the strategy for development. It needed incorporation of environmental factors and ecological imperatives into the design of all developmental projects from the very commencement of their plans.⁹⁸ Recognising explicitly that environment is not a free resource and like other natural resources is also essential.⁹⁹

In the field of pollution control, the Plan proposed to strengthen the measures that have already been initiated by cost effective recovery of valuable by-products from polluting effluents.¹⁰⁰ The salient features of the industrial programme included effective safety and control measures in and around industries for preventing health hazards, awareness programmed to prevent industrial accidents and ensuring safety.¹⁰¹ It

96. Supra. n.88 Chapter 2. "Development Perspective: Towards the year 2000", paras 2.1 and 2.2.

97. Id., para 2.3

98. Id., para 2.16 and 2.80.

99. Id., paras 2.81 and 2.17. Resource base consists of human resources, non-renewable resources which are the endowment of nature and whose total size get depleted with time and renewable resources which can be created and whose base can be expanded through human efforts.

100. Id., Chapter 7 para 7.46 and Ch. 18 para 18+31.

101. Id., para 7.47. For this the plan proposed that in industries like metallurgical industries and leather industry due attention would have to be given to adopt more effective measures for environment protection and restoring ecological balance.

also gave special consideration to highly polluting industries from the environmental angle.¹⁰² For, the Plan considered that environment degradation is the result of poverty under development as well as negative effects of development programmes badly implemented.¹⁰³ Thus resulted in mismanagement of natural resources, large-scale deforestation, unplanned discharge of residues and wastes and improper handling of toxic chemicals.¹⁰⁴

The tools and methodologies of environmental planning envisaged to include achieving environmentally sound development through co-operation between government agencies, voluntary groups, financial institutions, etc.¹⁰⁵ The impact of pollution is taken into consideration while proposing control and monitoring measures.¹⁰⁶ The plan proposed to strengthen National River Water Quality Monitoring stations¹⁰⁷ and entrust the basic tasks such as assessment and control of air pollution, coastal pollution, development of cost-effective technologies, etc. to the Central Pollution Control Board.¹⁰⁸ Other programmes are control

102. Id., para 7.181.

103. Id., para 18.5

104. Ibid.

105. Id., para 18.18.

106. Id., para 18.23 the impact is direct intake of contaminated water and inhalation of polluted air or indirect - loss of soil fertility.

107. Id., para 18.24.

108. Id., para 18.24.

of pollution at source, development of water quality, criteria, standards, regulation, preparation of comprehensive industry documents and laying Minimal National Standards for pollution discharges from specific industries¹⁰⁹ and establishing an ambient air quality network in some related cities.¹¹⁰ Specific programmes for control for hazardous substances¹¹¹ and prevention of coastal pollution are also initiated.¹¹² Above and over all these, the most important step undertaken is the programme on Prevention of Pollution of Ganga.¹¹³

The Plan proceeds further with the Sixth Plan initiative for the 'Environmental Impact Assessment' by proposing to establish Technical Cells for EA by all socio-economic Ministries/Department/Agencies and ensuring supervision by the Department of Environment from the environmental angle.¹¹⁴ Moreover, National Environmental Monitoring Organisation (NEMO) is to synthesis the available environmental information into

109. Id., para 18.29.

110. Id., para 18.30.

111. Id., para 18.33.

112. Id., para 18.32.

113. Id., para 18.34. The Central Ganga Authority is set up with Prime Minister Chairman. This is an interdisciplinary and interministerial programme involving the participation of DOE, DNES, Ministry of Works and Housing and Ministry of Agriculture.

114. Id., para 18.35.

a supporting framework for EIA.¹¹⁵ The Plan also proposes repairing the damages already done¹¹⁶ and precautionary measures such as documentary films,¹¹⁷ environmental education, training and awareness,¹¹⁸ research works¹¹⁹ and environmental information. Centre-State co-operation by decentralised implementation of environmental management will be an additional quality of great effort in the plan.¹²⁰

115. Id., para 18.36.

116. Id., para 18.45.

117. Id., para 18.46.

118. Id., para 18.54.

119. Id., para 18.50.

120. Id., para 18.58. ENVIS is entrusted with this work. It is a decentralised system with a network of Distributed Information Centres (DICs) on important subject areas. DICs have so far been set up in the field of pollution control, toxic chemicals, coastal and offshore ecology, environmental mapping environmentally sound technology, EIA, Biodegeneration of wastes and Eco-Toxicology.

Eighth Plan

Eighth Five Year Plan at the outset reviewed the progress achieved during the 7th plan period in the protection of environment and control of pollution. The important activities undertaken is enumerated as development of laboratories, management and operation of national air and water quality network, controlling pollution at source, river basin studies and evolution and implementation of national standards, programmes on waste recycling,¹²¹ prevention of coastal pollution and schemes concerning pollution. As the eighth plan is not yet available, an assessment of the major policies adopted from time to time during this period shows that the infirst two years of the eighth plan period, environmental law made a forward march. Legislative measures included the passing of Public Liability Insurance Act in 1991. By making the extensive use of the rule making power under Environmental (Protection) Act, a number of notifications having great relevance in the control of pollution have been evolved.¹²² Basic policies include policy statement for Abatement of Pollution¹²³ and National Conservation Strategy and Policy Statement for Environment and Development.¹²⁴

121. J.C. Aggarwal, Eighth Five Year Plan (1992) Chapter 12.

122. For a detailed discussion on this matter see infra, Chapter 4, pp.122-144

123. Policy Statement for Abatement of Pollution, 1992
Comp.L.J. P. 91

124. National Conservation Strategy and Policy Statement on Environment and Development. Op. cit., 44

P A R T I I

CHAPTER IV

CONSTITUTIONAL AND STATUTORY PERSPECTIVES

The Indian Constitution

The Constitution of India is called the precursor of the new Indian renaissance¹ with a number of notable features. However, it did not envisage the need for protecting environment except the duty cast on the State to improve public health for which protection of the environment is a *sin qua non*.² Though by that time the ramifications of industrialisation became eminent and emerged as a significant issue of developed countries after independence, our Constitution framers projected industrial and agricultural expansion as our dynamic national policy aiming at continuous increase in production by all possible means.⁴

In the Constitution of India, as it originally stood, the power to control industrial activities are scattered and classified on the basis of its national significance and public interest without the due regard to the resultant environmental

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1. M.P.Jain, Indian Constitutional Law, p.1.
 2. Constitution of India, Article 47 provides for the improvement of public health as one of the primary duties of the State.
 3. For example in countries like U.K. and U.S.A. Pollution Control Laws were enacted as early as 1948.
 4. Supra. Chapter 3 foot note 3, p.64.

hazards.⁵ This may be so because the environmental awareness was later development in India. Environmental legislative powers are available under all the three lists.⁶

The Forty Second Amendment is a land mark. It introduced specific provisions for the protection of environment then making India one among the few countries whose constitution contains explicit provisions for environment. India, being a participant in the Stockholm Conference held in 1972 implemented the recommendations laid down in the Stockholm Declaration not only by enacting specific legislation for the protection of environment but also by inserting certain significant provisions⁷ in the Constitution.

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5. Supra. n.2. Schedule VII. List I (1) Entry 7: Industries declared by law to be necessary for the purpose of defence or for the prosecution of war. (2) Entry 52: Industries the control of which by the Union is declared by Parliament by law to be expedient in the public interest.
List II-Entry 24: Industries subject to the provisions of entries 7 and 52.
List III-Entry 36 and 37: Factories and Boilers
Entry 33: Trade and Commerce in and the production, supply and distribution of
- (a) the products of any industry where the control of such industry by the Union is declared by Parliament by law to be expedient in the public interest, and imported goods of the same kind as such products;
 - (b) food stuffs including edible oil seeds and oils;
 - (c) cattle fodder, including oil cakes and other concentration;
 - (d) raw cotton whether ginned or unginned and catch seeds and (e) raw jute.
6. Id., List I - Entry 52, 53, 54, 55 and 57
List II- Entry 5, 14, 17, 18, 21, 24 and 25
List III-Entry 17A, 17B and 20.
7. See infra nn.8 and 9.

The Directive Principles of State Policy are enshrined in Part IV of the Constitution in the form of instructions to the Government providing guidelines for action mostly implemented by legislation. The forty second amendment cast a duty on the state for protecting and improving the quality of environment at all levels. The provision says,

"The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country"⁸.

It has become obligatory on the part of the Government to provide measures for controlling and preventing pollution caused by industries.

Apart from the directives to the State another new Article provides for certain fundamental duties of the citizens of India. It says,

"It shall be the duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life, and to have compassion for living creatures".⁹

These constitutional provisions are said to be not justiciable. They do not create any justiciable right in favour of the individual. However, many are the judicial attempts to read these provisions into the fundamental rights. Today the picture is clear. The right to environment has been evolved by the

8. Id., Article 48A.

9. Id., Article 51-A (g).

judiciary.¹⁰ Now both the government and the governed are duty bound to take steps for achieving the good. Moreover other rights such as right to work, trade or business are tested on the touch stone of 'protection of the environment'.¹¹ Judicial attempt is to elevate the environment protection to a higher pedestal by diverse approaches.

In Rural Litigation and Entitle Kendra v. State of U.P.¹² the Supreme Court explicitly acknowledged preservation of environment and keeping the ecological balance unaffected as a task which both the government and every citizen must under take.

Justice Ranganath Misra observes,

"It is a social obligation and it is a fundamental duty of every citizen as enshrined in Article 51 A(g) of the Constitution".¹³

Supreme Court in Sachidananda Pandey v. State of West Bengal¹⁴ stressed the court's responsibility. Justice Chinnappa Reddy observed:

"Whenever a problem of ecology is brought before the Court, the Court is bound to bear in mind Article 48A of the Constitution and Article 51A (g)...when the Court is called upon to give effect to the Directive Principles and Fundamental Duty, the Court is not to shrug its shoulders and say that priorities are a matter of policy and so it is a matter for the policy making authority".

10. For details see infra. Chapter 7, pp. 265-268

11. Id., pp. 256-260

12. A.I.R. 1987 S.C.359.

13. Id., p.364.

14. A.I.R. 1987 S.C.1109 at p.1114.

One of the M.C.Mehta cases dealt with pollution caused by automobiles and industries in Delhi. In this case the Supreme Court emphasised the need for a clear perception and imaginative planning. It found that the incorporation of protection of environment in the Directive Principles as an obligation of the State and of the fundamental duties in Article 51A as a mandate to the citizens¹⁵ indications of the constitutional recognition of the importance of environment on life. Sustained effort and result oriented strategic action such as campaign for general awakening of the people are essential in order to implement law and restore a balance in the ionospheric disturbance.¹⁶ Again, right to social justice is a fundamental right because socio-economic and cultural rights are the means to achieve other rights such as right to human dignity and right to development and are relevant to realise the basic aspirations of meaningful right to life.¹⁷

In Ambika Quarry Works v. State of Gujarat¹⁸ the Supreme Court recognised the right of the people to hygienic environment. The environmental balance was weighed against the need for

15. M.C.Mehta v. Union of India and Others, 1991 (1) SCALE 427.

16. Id., p.429.

17. C.E.S.C. Limited v. Subash Chandra Bose, (1992) 1 S.C.C. 441 at p.463.

18. 1986 (2) SCALE 1037.

limestone quarrying for industrial purposes. The court observed that the obligation to the society must predominate over the obligation to individual.

The High Courts did not lag behind in emphasising the social justice obligations under the Directive Principles and Fundamental Duties. Rajasthan High Court even tried to identify the 'right of the citizens' under Article 51A which otherwise is generally called the duties of the citizens.¹⁹ The Court even went to the extent of saying that the constitutional obligation cast on the 'citizen' in particular is to create real citizens of the country.²⁰

Similarly, Gujarat High Court held that by giving notice to the polluters, the Municipal Commissioner has simply reminded them of their fundamental duty. Fundamental right is not an absolute right and even in the absence of Article 51A(g) no one can claim absolute right to carry on business.²¹

Andhra Pradesh High Court also interpreted Article 48A as imposing an obligation on the government including the courts to protect the environment.²²

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19. L.K.Koolwal v. State, A.I.R. 1988 Raj. 1.
The court held that it creates a right in favour of the citizen to move the court to see that the state performs its duties faithfully in accordance with the law of the land.
20. Id., p.4.
21. Abhilash Textile and Others v. The Rajkot Municipal Corporation, A.I.R. 1988 Gaj 57
22. T.Damodhar Rao v. Special Officer, Municipal Corporation of Hyderabad, A.I.R. 1987 A.P. 171 at p.181.

High Court of Kerala found the articulation enshrined in Article 51A(g) as substantiating the right to life under Article 21 as pure air and sweet water are essentials for substance of life.²³ In Lakshmipathy v. State of Karnataka the High Court held that if the constitutional obligations are not discharged by due enforcement by administrative agencies, the court cannot turn a Nelson's eye.²⁴

The High Court of Kerala tried to interpret a public nuisance in the constitutional perspective saying that right to life is far more than the right to animal existence and under Article 51A(g) it is a fundamental duty to protect and improve the natural environment.²⁵

Thus judicial attempts elevated the protection of environment from the Directive Principles and Fundamental Rights to a separate independent right without which ~~right to life~~ under Article 21 will become futile. The right to life comprehends, inter alia, right to environment, right to health care and right to adequate health delivery system. A.P. High Court preferred to treat slow poisoning and spoilation as an offence equally serious as a violent extinguishment of life amounting to violation of Article 21 of the Constitution.²⁶

23. Mathew Lukose v. Kerala State Pollution Control Board and Others, (1990) (2) K.L.T. 717.

24. Lakshmipathy v. State, A.I.R. 1992 Ker.57.
The Court found "Fundamental duties are intended to promote people's participation in restructuring and building a welfare society and the Directive Principle under Part IV are intended to build the edifice of welfare state environment and its preservation is a subject matter of both thus emphasising the importance given to it by our Constitution".

25. Madhavi v. Thilakam, 1988 (2) K.L.T. 730.

26. Supra. n.22.

Thus the enthusiasm of the courts to mould the right to life, initiated in the Olga Tellis case²⁷ turned out to be the starting point for wider judicial interpretation to bring the right to environment as part of right to life. These are dealt with in detail later in this thesis.²⁸ The conclusion arrived is that the paradigm "right to environment" is a judicial coinage in the light of human rights and a reflection of the international attempts to stimulate legal recognition of environmental protection. The right to life under environmental protection refers more to the deprivations of life than the threat to life.

The above referred cases reveal that the Supreme Court has percolated the ideas of directive principles of State policy into right to life guaranteed under Article 21. Such interpretations are ^{endorsed by} eminent jurists²⁹ and in the context of environment protection, the question is whether there can be an individual right to environment. This is significant because an attempt to protect an individual's right will invariably result in curtailing the right of another. And, if we look at the matter in the Olga Tellis perspective, the judicial approach to industrial

27. Olga Tellis v. Bombay Municipal Corporation, A.I.R. 1986 S.C.180.

28. See infra, Chapter 7.

29. Mahendra P.Singh, "Are Articles 15 (4) and 16 (4) fundamental rights", (1994) 3 S.C.C. (J.), p.32 at p.37. The learned jurist expressed his view based on the recent judgements of the Supreme Court that a justiciable right is accruing from the directive principles of state policy.

pollution has further specified the right to life saying no one can have a livelihood at the cost of the environment.²⁹ Again, the incidents occurring time and again point to the nexus that industrial pollution even within the permitted limits may turn out to be a risk to life.³⁰

Apart from the provisions discussed above, where the constitutional provisions are explicitly amended or interpreted for incorporating the urgent need for protecting the environment, policy makers made use of other provisions to bring out statutes specifically for the protection of environment.³¹ These statutes are

29. For details see infra Chapter 7, pp.34,35.

30. Minamata incident in Japan and Chernobyle Nuclear Plant accident in USSR etc.

31. Parliament enacted Water (Prevention and Control of Pollution) Act 1974 by empowering it to do the same making use of Article 252 of the Constitution. Again in the wake of Stockholm Conference in 1972 Parliament used its power under Article 253 to enact the Air (Prevention and Control of Pollution) Act, 1981 and Environment (Protection) Act, 1986. Art.252 deals with power of the Parliament to legislate for two or more states by consent and adoption of such legislation by any other state. Art.253 deals with legislation for giving effect to international agreements. The Preambles to both laws (Air Act and Environment (Protection) Act) state that these acts were enacted to implement the decisions reached at the United Nations Conference on Human Environment held at Stockholm in 1972.

presently the spinal cord of legal control of industrial pollution. They are statutes exclusively for the purpose of controlling pollution used extensively for proceeding against polluting industries.

Water and Air Acts

U.N. Conference on Human Environment in 1972 provided a focal point for the gathering of environmental concern of the 1960s that took a serious turn after the publication of the book 'Silent Spring' in 1962.³² Though there was difference of opinion between the developed and developing countries upon the environmental issues, Stockholm Declaration had its influence throughout the world.³³ National attempts to implement the principles laid down in the light of those recommendations was the first step adopted and India did not lag behind in the task. Thus the Central Government in 1972 itself established a National Committee on Environmental Planning and Co-operation (NCEPC) as an apex advisory body in all matters relating to environmental protection and improvement.³⁴

32. Rachel Carson's Silent Spring was published in 1962. In this book Rachel Carson introduced the challenges posed by persisted toxic chemicals. Erik P. Eckhalm, Down to Earth (1991) p.3.

33. Id., pp.6-7. For example, Brazil characterized the hue and cry for pollution as a plot to hamer the industrialisation of the south.

34. The committee was set up on Human Environment under the Chairmanship of Pitamber Pant, Member, Planning Commission to prepare its report. NCEPC was set up in February 1972 in the Department of Science and Technology.

Later, after the forty second amendment, the Government felt the need for assessing the environmental protection already adopted and those requiring further attention. Tiwari Committee constituted for this purpose in its Report³⁵ noted some major shortcomings and suggested recommendations.³⁶ Establishment of a Department of Environment and Replacement of NCEPC by a National Committee on Environmental Planning (NCEP) are the two major steps in the administrative process of environmental protection³⁷ culminating in the creation in 1985 of the Ministry of Environment and Forest as its focal point.

Similarly, the seed of water Pollution Bill 1969 germinated into the sapling in 1974. The Water (Prevention and Control of Pollution) Act 1974 was thus enacted. This is the first

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35. Tiwari Committee Report, Department of Science and Technology, Government of India (15th September 1981).
36. Id., pp.19-24. See also Chatrapati Singh, "Legal Policy for Environmental Protection", in P.Leelakrishnan et.al., (Eds) Law and Environment, 26 at p.27. The Report identified nearly 200 laws having relevance for environmental protection. The report summarised that (1) many of the laws are out dated (2) They lack statements of explicit policy objectives; (3) They are mutually inconsistent (4) They lack adequate provisions for helping the implementing machinery (5) There is no procedure for reviewing the efficacy of the laws. And recommended for - (1) Comprehensive review and reformation of Central and State Acts (2) New legislation for areas of action not covered by the present laws (3) The introduction of 'Environment Protection' in the concurrent list of the Seventh Schedule.
37. S.N.Jain, "Water Pollution Act 1974" in Paras Diwan (Ed) Environment Protection - Problems, Policy Administration, Law (1987) p.179 at p.181.

statute exclusively for the prevention and control of pollution.³⁸ But however, though it was enacted just after the Stockholm Declaration the Act did not express any loyalty towards this global declaration.³⁹ The decisions made at the United Nations Conference on Human Environment took sometime more for implementation and in 1981 the Air (Prevention and Control of Pollution) Act 1981 was enacted invoking the Central Government's power under Article 253.⁴⁰ It will not be an exaggeration to say that seven years of experience with the Water Act did not add anything to this new one and it is a mere replica of the other, having the same powers, same procedure and almost the same enforcement mechanism. Therefore, a combined assessment of these two legislation in the perspective of sustainable development is possible.

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38. Centre for Science and Environment (CSE) "The State of India's Environment (1984-85)" Second Citizen's Report (New Delhi, 1985) p.344.
As early as 1962, the Ministry of Health had appointed an expert committee on water pollution which recommended that Union as well as State laws on the subject be enacted. In 1963, the Central Council on Local Self-government recommended the enactment of a single law by Parliament. Thus the prevention of Water Pollution Bill 1969 was introduced in the Rajya Sabha after six states had adopted the required enabling resolution. In August 1970, the Rajya Sabha referred the Bill to a joint committee which modified it in many respect respects and then presented it to Parliament in 1972. The Bill was passed by Parliament in 1974 which took the form of the Water (Prevention and Control of Pollution) Act 1974 (Water Act 1974)
39. Preamble the Water Act, 1974. No reference is made to the Stockholm conference in the preamble or long title of this Act although later laws on pollution and on environment protection specifically owe their origin to and get inspiration from Stockholm. Also see Objectives stated therein as maintaining and restoring the wholesomeness of water.
40. Supra. n.31.

Pollution Control Boards are constituted under Water Act.⁴¹ The same boards are empowered to look into the questions coming under the Air Act.⁴² The jurisdiction of these boards do not stop here. Prior and later legislations regard the agencies capable of looking after functions envisaged under them.⁴³ The fact is that the boards consist of nominated members,⁴⁴ with only

41. Water Act, 1974. Ch.II Section 3. The Central Government is entrusted with the constitution of a Central Pollution Control Board whereas State Governments are to constitute State Pollution Control Boards by notification in the Official Gazette to exercise the powers conferred on and perform the functions assigned to them under the Act.
42. Id., It is the same Board constituted under Section 3 of the Water Act to exercise and perform the powers and functions under the Air Act according to Section 3 of Air Act. Similarly the "Central Board" under the Environment (Protection) Act, 1986 means the Central Board for Prevention and Control of Water Pollution constituted under Section 3 of the Water Act. Environment (Protection) Rules 1986 Section 2 (b) Definitions.
43. (1985) 1 Comp.L.J. 14. For example the Government had announced vide Press Note No.17 (1984) series dated 7.12.1984 a list of 20 industries causing high pollution, and it was stated that the conversion of letter of intent into industrial licence will take place, only if, apart from other prescribed conditions, the environmental conditions as set out in the notification have been fully satisfied. And the certificate from the concerned State Pollution Control Board is one of these pre-conditions laid.
44. According to Sections 3 and 4 of both Water Act and Air Act, the Central Board and State Boards consisted of 15 members nominated by the Central Government and State Government respectively excluding the Chairman and the member secretary.

the Chairman⁴⁵ and the Secretary⁴⁶ as the full time office bearers. The functions of the Central Pollution Control Board are more⁴⁷ advisory, supervisory, co-ordinating and planning in nature while the State Boards are to implement the Act procedurally by laying down standards, giving consent, inspecting occasionally the premises and enforcing the law through penal measures.⁴⁸ The power to give directions for the closure, prohibition or regulation of any industry, operation or process or the stoppage or regulation of supply of electricity, water or any other service is a new and additional function acquired by the Board after 1987 and 1988 Amendments of the Air Act and Water Act respectively.⁴⁹

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45. Though the Chairman of the Central Pollution Control Board necessarily is to be a full time chair, it need not be same for the State Board. It may either be a whole time or part-time as the State Government may think fit as per the Amendment Act 44 of 1978.
46. The full time member secretary possessing qualifications, knowledge and experience of scientific, engineering or management aspects to be appointed by the Central Government or the State Government, as the case may be, is a new substitution by Act 53 of 1988 and Act 47 of 1987 amending Water Act and Air Act respectively.
47. Id., Section 16 of the both Acts.
48. Id., Section 17 of both Acts.
49. Id., Section 31A of Air Act and Section 33A of Water Act. The power to give directions is actually the power of the Central Government under the Environment (Protection) Act, 1986 incorporated as well under the Water Act and Air Act by the 1988 and 1987 amendments respectively.

Laying down standards⁵⁰ and implementing the standards through consent procedure are the main administrative measures under these statutes for Prevention and Control of Pollution. Laying standards is one of the functions of the Pollution Control Boards⁵¹ and an important aspect of controlling industrial pollution.

Standard fixing may be used as a guideline or it may be used as a means of defining what an individual or firm may do.⁵² Evolving standards is a lengthy process of trials, rectifications, surveillance, feed back and revisions because collecting data on the environmental effects of many pollutants is difficult.⁵³

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50. Standard means the maximum levels of various pollutants to be permitted in water, air and soil, work place or other locations. An adequate set of standards should specify what contaminants will be regulated and what variation in levels and combinations will be accepted in different pollutant categories. Thus defining standards amounts to declaring what public will consider to be "pollution". Walter A. Rosenbaum, Environmental Politics and Policy (1991) p.172.
51. Section 16 (2) (h) and Section 17 (g) of Act deals with the provision of standard fixing by Central Pollution Control Board and State Pollution Control Board while Section 16 (2) (g) and 17 (1) (g), (k) and (m) deals with similar functions under the Water Act.
52. Simon Ball and Stuart Bell, Environmental Law p.66.
53. S.Sundaramoorthy, "Water Pollution Control Concepts and Misconcepts" in National Seminar on Environmental Pollution, (1976) held at Kochi (6-8 May) p.221.
For, environmental damages caused by pollutants vary from case to case depending upon the nature of the receiving medium or the location of the industry.

Data may sometimes even be absent or fragmentary.⁵⁴ It required quantifying the contaminants in relation to the Environment.⁵⁵

Standards are basically of two types.⁵⁶ (1) Environmental quality standards or ambient standards and (3) Effluent or emission standards.⁵⁷ They are not mutually exclusive and co-exist in the control programmes today.

54. Supra. n.50.

55. Dr.G.M.Saxena, "Standards for Environmental Pollution - How Arrived At" National Seminar on Environmental Pollution, (1976) op.cit., p.346.

56. Frederick Anderson, et.al., Environmental Improvement through Economic Incentives (1977), p.8. See also supra. nn. 50,52 and 55.

57. Id., Ambient standards: Ambient standard is a legal specification of minimum conditions which must be met for some indicator of environmental quality at a specified location in one of the environmental media. For example an ambient standard may state that dissolved oxygen averaged over a 24 hour period at a selected river mile point must not fall below 4 parts per million more than one day per year. Effluent standards are requirements (either by weight of materials or concentrations) set on the quality characteristics of the actual discharges. It prescribes the maximum level of individual contaminants that can be permitted to be discharged from the industry or by the community.

The standards are fixed for the quality of environment generally. These may relate to any particular medium such as air or water. The standard fixing takes into account many factors. It considers the maximum tolerance of human, plant, animal and aquatic life to individual contaminants.⁵⁸ The maintenance of the environmental quality is a governmental effort starting right from the installation of an industry. This task is to be achieved by fixing emission or effluent standards prescribing the maximum levels of individual contamination permitted from each industry. It may vary from industry to industry. The conformity is measured by reference to what is emitted rather than the effect on the receiving medium. Such standard fixing may be of different types,⁵⁹ emission standards, process standards or product standards.

All these are interrelated and equally important for maintaining the quality of environment.⁶⁰ Location, concentration of industries in a particular place, raw materials

58. Supra. n.52 at pp.66-70.

- The environmental quality standards include -
- 1) setting air quality standards for the maximum, or minimum concentration of any specified substance in air; or
 - 2) setting water quality standards for the concentration of specified pollutants in "controlled waters".

59. Id., p.68.

Emission standard thus deals with the concentration of waste products for eg. the maximum content of a particular substance in a liquid discharge from a pipe or sewer and in the gaseous discharge from a chimney or exhaust pipe. Process standards may be imposed either by stipulating precisely the process which may be carried on or by setting performance requirements such as technology used, raw materials or the height of a factory chimney. Products standards specify the characteristics of an item produced. For eg. requirement for labelling environmentally friendly products.

60. Id., p.69

used, nature of technology, nature of emission, etc. are the ingredients considered by authorities for the fixing of standards.⁶¹

Thus under the Water Act, the Central Pollution Control Board is to lay down standards for a stream or well in consultation with the State Government concerned.⁶² The functions of the State Boards include laying down annual effluent standards for the sewage and trade effluents and for the quality of receiving waters. They classify waters of the state.⁶³ They also lay down standards of treatment of sewage and trade effluents to be discharged into any particular stream⁶⁴ or the standards to be complied with by persons causing such discharge.⁶⁵

Fixing standards is a compromise arrived at for effectively balancing environment and development and ISI started working on Water Pollution and Air Pollution in 1972. Under the Air Act the

61. Supra. n.55. It is a process done through active collaboration of all interested concerned, namely Government Departments manufactures, technical bodies etc.

62. Water Act, 1974 Section 16 (2) (g). Provided that different standards may be laid down for the same stream or well or for different streams or wells having regard to the quality of water, flow characteristics of the stream or well and the nature of the use of the water in such stream or well or streams or wells.

63. Id., Section 17 (g).

64. Id., Section 17 (k). It is to be done taking into account the minimum fair weather dilution available in that stream and the tolerance limits of pollution permissible in the water of the stream, after the discharge of such effluents.

65. Id., Section 17 (m).

Central Pollution Control Board lays down standards for the quality of the air⁶⁶ while the State Boards lay down standards for emission of air pollutants into the atmosphere from industrial plants and automobiles or any other source.⁶⁷ Thus the ISI standards for the disposal industrial effluents into the streams and rivers give the specification of the industrial effluents allowed for discharge into the water courses.

Indian standards for environmental pollution control have already been published on air pollution, water pollution and noise pollution.⁶⁸ This includes the tolerance limits for industrial effluents of varying nature discharged into different media. Standards for effluents⁶⁹ are not only dynamic but also vary from industry to industry. Both Water Act and Air Act carry out the procedural implementation of the pollution control measures through the consent mechanism as provided by these Acts.⁷⁰

66. Air Act, Section 16 (2) (h).

67. Id., Section 17 (1) (g). It is to be done in consultation with the Central Board and having regard to the standards for the quality air laid down by the Central Board. Different standards for emission may be laid down under this clause for different industrial plants having regard to the quality and composition of emission of air pollutants into the atmosphere from such industrial plants.

68. For details see G.M.Saxena, op.cit., pp.350-353.

69. S.N.Jain, "Legal Control of Water Pollution in India", in S.L.Agarwal (Ed.), Legal Control of Environmental Pollution (1980) p.28.

70. Water Act and Air Act Section 25 (4)(a) and Section 21(5) respectively.

Different standards for different industries in different localities demand additional measures for effective implementation of environmental statutes. The requirement that consent should be obtained from the authorities inter alia provide adequate vigilance over the industries. Because, while granting consent orders, the Boards may lay down conditions as to the quality of effluents discharged.⁷¹ It is a licence valid for such period as may be specified and is to be renewed after that, therefore conditional and dependant on the proper and effective management of pollutants during that period.⁷² Moreover, the fact that State Board can cancel or review the conditions from time to time and conditions are to be complied with strictly, enable the Board to have full control over the activities.⁷³

All enterprises are thus prohibited from operating without the consent of the Board.⁷⁴ Consent is necessary both for new outlets and new discharges as well as existing discharge of sewage or trade effluents.⁷⁵ State Pollution Control Board is the consenting authority to whom is submitted the application for consent containing particulars⁷⁶ regarding the proposed construction, installation or operation of the establishment or of any

71. Ibid.

72. Ibid.

73. Water Act and Air Act, Section 27 and 21 (5) (6) respectively.

The conditions laid down shows that the Board can exercise full control over the process and it is to enable the Board to exercise the right to take samples. The fact that the conditions imposed are not complied with itself is a ground for rejecting the consent application at any time.

74. Water Act, Section 24.

75. Water Act, Section 25 and 26 and Air Act, Section 21.

76. Ibid.

treatment and disposal system or of any extension or addition to them. It may make an inquiry before granting consent⁷⁷ and shall, unless given or refused earlier, be deemed to have been given unconditionally on the expiry of the period of four months.⁷⁸ Thus 'consent mechanism' is the central theme of these Acts. It is the focal point controlling the working of these Acts. But the Acts do not specifically provide for public participation in the implementation of the Act except for Section 49 (1)(b).⁷⁹

Administrative Powers

Administrative powers include the powers for the routine functioning of the consent mechanism and emergency measures. When we speak of the powers, it is to be noted that the system is heirarchical in nature.⁸⁰ These two Acts are basically different

77. Water Act and Air Act Section 25(3) and 21(3).

78. Supra. n.62 Section 25 (7). Air Act is silent about this provision.

79. Id., Section 49(1)(b). Submitted in 1988. (by Act No.53 of 1988). It permits a person to file a complaint only after giving a sixty days notice to the Board regarding the alleged offence under the Water Act.

80. Section 18 of both Water and Air Acts provides power to give directions. In the performance of the functions under the Act, the Central Board shall be bound by such directions in writing as the Central Government may give to it and every State Board shall be bound by such directions in writing as the Central Board or State Government may give to it. Provided that where there is inconsistency between the two, the matter shall be referred to Central Government for its decision.

in their enactment and therefore application.⁸¹ Thus when the Water Act is applicable to only those states that by resolution adopt the Act, Air Act is applicable to whole of India. But the Water Act restricts its application within the State to such area or areas as may be declared therein while Air Act is applicable to those air pollution control areas declared so by the State. Thus in effect both are applicable to only the declared pollution control areas.⁸²

For its proper functioning, the Board is empowered to supervise the water courses,⁸³ collect information⁸⁴ and give directions to polluting industries to furnish information about the pollution control measures adopted.⁸⁵ Taking samples,⁸⁶ entering any place for inspection⁸⁷ and getting the result of analysis⁸⁸ are other functions.

81. Supra. n.32.

82. Water Act and Air Act Section 19.

83. Water Act and Air Act Section 29(1).

84. Water Act Section 20(2).

85. Section 20(3), 25 of Air Act.

86. Water Act Section 21 and Air Act Section 26.

87. Section 23 Water Act and Section 24 of Air Act.

88. Id., Section 22 and Air Act Section 27.

In order to ensure proper functioning through consent mechanism, the State Board may itself execute or cause to be executed those works for fulfilling the conditions laid down in the consent order and recover the expenses from the person concerned.⁸⁹

When an emergency situation comes due to the presence of any poisonous, noxious or polluting matter and the Board is of the opinion that immediate action should not be delayed, the Board may for reasons to be recorded in writing carry out the operations such as removing that matter, remedying or mitigating any pollution caused, or issuing orders restraining or prohibiting the discharge or the insanitary use of the stream or well.⁹⁰ But in case of apprehended pollution the Board is incompetent to take emergency measures but will have to get a court order.⁹¹

The main criticism against these legislation is based mainly on the factor that the Boards had no direct power to take action against the polluters. Their functional freedom came to be criticised looking at the structural and procedural provisions.⁹² Considering these matters seriously and also

89. Id., Section 30.

90. Id., Section 32 (1).

91. Id., Section 33.

92. N.S.Chandrasekharan, "Structure and Functioning of Environmental Protection Agency: A Fresh Look" in P.Leelakrishnan et.al., (Eds) Law and Environment, p.153.

to bring them in line with the Environment (Protection) Act 1986, both these Acts were amended in 1987 and 1988. The Amendments incorporated the inclusion of a noteworthy power of the Boards to issue any direction and the person or authorities to whom direction is given shall be bound to comply with such directions.⁹³ Perhaps, the only limitation on this is the power given to Central Government to give binding directions to the board.⁹⁴

A three tier system of environmental authorities at the rural, urban and district levels will be desirable. This will help, co-ordinate the activities of the existing board. It is also desirable that the name of the board is changed into environment protection board in order to reflect the holistic approach in its functions.

As in any other legislation, enforcement of Water and Air Acts is done mainly by making use of criminal sanctions.⁹⁵ There is a separate chapter for this purpose aiming implementation that is prompt and adequate.⁹⁶ Getting consent according to the procedure laid and complying standards and conditions under this

93. Water Act, Section 33A and Air Act Section 31A. This power includes the power to direct the closure, prohibition or regulation of any industry, operation or processes or the stoppage or regulation of supply of electricity, water or other service. According to one author it is a sweeping power and its position under Section 33 enhances the powers of the Board in cases of an apprehended pollution.

Bharat Desai, Water Pollution in India (1990), p.53.

94. Ibid.

95. K.N.Chandrasekharan Pillai, "Criminal Functions and Enforcement of Environmental Legislation" in P.Leelakrishnan et.al., (Eds) op.cit., p.175.

96. Water Act, Chapter VII and Air Act, Chapter VI "Penalties and Procedure".

consent are the primary duties insisted under these statutes.⁹⁷ Providing information where ever necessary,⁹⁸ following the prohibitory orders in emergency situations and apprehended pollution⁹⁹ and complying with directions by the Board¹⁰⁰ are those other obligations to be followed strictly and failure of which attract penalty and procedure as prescribed under these Acts.¹⁰¹

97. Water Act, Section 25 and 26 and Air Act Section 21.

98. Id., under Section 29(2) and (3) the State Board can seek information from any person or industry as to the abstraction of water orders charge of effluents as well as information regarding the construction, installation or operation of any establishment or of any disposal system and such other particulars as may be necessary.

99. Water Act Section 32 and 33.

100. Water Act Section 33A and Air Act 31A.

101. Thus Water Act prescribed punishment upto three months imprisonment or fine upto ten thousand rupees or both with additional fine extending upto five thousand rupees per day of continuance for failure to comply with any direction under Section 20. (Section 41 (1)). For violation of Sections 24,25 and 26 under the Water Act and Sections 21 and 22 under Air Act the minimum punishment prescribed is one year and six months to maximum of six years with fine (Water Act Section 43,44 41(2) and Air Act Section 37 (1)). In case the failure continues additional fine extending to five thousand for every day and enhanced penalty after previous conviction - imprisonment for not less than 2 year extending upto seven year and with fine. Similarly failure to comply with directions under Water Act Section 32, or 33A and Air Act 31A also attract the same quantum of penalty.

Water Act Section 42 and Air Act Section 38 penalises those activities done in order to obstruct the functioning of the Pollution Control Board. Latest amendments to these Act (1987 and 1988) have added new provision "penalty for contravention of certain provisions of the Act". (Water Act Section 45A and Air Act Section 39) The purpose is to meet contingencies. Thus the provision enable a penal action wherever no such penalty has been provided by these Acts explicitly.

Publication of the names of offenders is an additional measure to stress the fact that in environmental law it is really the threat of stigma on which the very employment of criminal law is based.¹⁰² Offences by companies as well as Government departments also attract punishment under these Acts.¹⁰³ The cognizance of offences under these Act shall be taken only on a complaint made by the Board or any officer authorised in this behalf or any person giving sixty days notice.¹⁰⁴ Avoiding the jurisdiction of the civil court is to restrict unnecessary interference by injunctions, etc. delaying the preventive measures adopted under these Acts.¹⁰⁵

Thus the Water Act and Air Act provide to a great extent for the control of industrial pollution. But the inadequacy of these Acts is projected by the fact that even in the wake of these elaborate provisions for control mechanism, relief from water or air pollution is sought preferably by making use of the writ jurisdiction of even common law remedy of nuisance.¹⁰⁶ Why?

102. K.N.Chandrasekharan Pillai, op.cit., p.179.

103. Water Act Section 47 and 48 and Air Act Section 40 and 41.

104. Water Act Section 49 and Air Act Section 43.

105. Air Act Section 46.

106. The case law traced in the supra. chapters 6 and 8 show that still the preference is for the other remedies than remedy under these special statutes for environmental protection.

A critical evaluation of these statutes shows that the latest amendments have strengthened the provisions considerably, especially the Pollution Control Board and increased the quantum of punishment. But the general criticism is still that the provisions under them could be manipulated to the advantage of the defendant and Amendment did not change the scheme and phraseology to avoid such instances.¹⁰⁷ Moreover, the policy adopted by the Pollution Control Board is persuasion rather than prosecution.

Grass root Problems

The inadequacy of these statutes can be attributed to the fundamental mistake in assessing the environmental problems that are different from the policy envisaged.¹⁰⁹ The observations

107. K.N.Chandrasekharan Pillai, op.cit., p.170.

108. M.R.Garg and N.S.Tiwana, "Enforcement of Environmental Law and Management of Pollution Control" in R.K.Sapru (Ed) Environmental Management (1987), p.103. This is because industries still consider it a unnecessary burden imposed on them and the authorities for the control of pollution find it difficult the prosecute the big industrialists for their position in the society.

109. Chhatrapati Singh, op.cit., p.27
It was a macro-level analysis arriving at conclusions, by merely looking at the formal characteristics and not relating itself to the actual socio-economic conditions at the implementation level. The main recommendations did not include the need for improving environmental statute to overcome the inherent deficiencies in the implementation process. Therefore, it is concluded by the author that Tiwari Report failed to really get in to the heart of the problems.

in the Tiwari Committee Report do not reflect the actual problem confronted.¹¹⁰

The fact remains that the Tiwari Committee Report stressed the need for laws to protect environment with an administrative machinery to implement them but neglected the preventive measures and concentrated on laws to abate pollution.¹¹¹ There can be noted a deviation from the industrial policy envisaged for laws merely purported to carry out the control of pollution by various measures.¹¹² The factors such as a rational industrial location policy, decentralization of industries as envisaged under the Industrial Policy Statements,¹¹³ incentives for the implementation of such policies, the problems involved in the control of pollution caused by cottage and small industries etc were totally neglected¹¹⁴ in framing the provisions of the Water and Air Act.

This mistake continued to project itself even through the latest Amendments, for the law makers did not consider it

110. Supra. n.35.

111. G.H.Lalvani, "Law and Pollution Control" in J.Bandyopadhyay, et.al., (Eds) India's Environment Crises and Responses (1987), p.285 at p.286.

112. Ibid.

113. For details of the industrial policies adopted from time to time see supra. chapter 3.

114. The framers of these laws failed to examine the causes of the problem of air and water pollution and arrived at the need for statutory regulation because no remedy was available.

necessary to change the schemes and particulars of procedures within these Acts. Therefore, they cover only those violations done knowingly¹¹⁵ leaving out negligent actions whereas pollution by industries is caused more by negligence than by any intention to do so. The amendment in 1988 did not exclude the mental element. Yet these amendments inserted new sections to both Acts to bring those offences not mentioned specifically within the ambit of penalties and punishments.¹¹⁶ Another criticism is that the fine imposed is a meager amount for an industry which in turn can be transferred to the consumers of their industrial products. It therefore, diminishes the deterrent value of criminal sanction. Again, the onus of proof and the quantum of evidence required for conviction are not clear leaving the courts to evolve their own criteria.

The Amendments to various provisions of Water Act and Air Act in 1988 and 1987 have strengthened the Pollution Control Boards considerably and increased the quantum of punishment.¹¹⁷

115. Water Act Section 24. See also K.N.Chandrasekharan Pillai, *op.cit.*, p.175 at p.180. and G.Sadasivan Nair, "Environmental Offence: Crime against Humanity" in P.Leelakrishnan, *et.al.*, (Eds) Law and Environment (1991) p.185.

The author suggests a grading of offences into three or four categories on the basis of mens rea involved in the commission or omission of the act.

116. Water Act, Section 45A and Air Act, Section 39.

117. 1987-88 Amendments have introduced new sections (Section 31A and 33A respectively). The pollution Control Boards have the power now to issue directions to any person, officer or authority who shall be bound to comply with such directions which includes the closure, prohibition or regulation of any industry, operations or process or the stoppage or regulation of supply of electricity, water or any other service. Similarly, the quantum of punishment has been increased to imprisonment for 3 months and fine upto then thousand and addition fine of five thousand per day for continuation of the offence.

But still the provisions are such that they could be manipulated to the advantage of the defendants.¹¹⁸ Again the dictum 'prevention is better than cure' is yet to be recognised and preventive measures such as environmental impact assessment and emergency powers are still foreign.¹¹⁹

Environment Act and Control of Industrial Pollution

Environment (Protection) Act 1986 is the most prominent legislative response to the environmental crisis revealed by Bhopal and its aftermath.¹²⁰ It is a short legislation with twenty six sections concentrating more on general highlights of policy envisaged leaving the elaborate procedural measures to be supplemented from time to time through Rules framed under it. If we look at this Act from the perspective of controlling industrial pollution, it will not be wrong to conclude that though it is entitled as environment protection legislation, it is taken as another legislation for the control of pollution.¹²¹

118. K.N.Chandrasekharan Pillai, op.cit., p.179.

119. For under Section 33 of Water Act the PCB has approached the court for restraining apprehended pollution of water. Again no provision is there for an environmental impact assessment. For details see N.S.Chandrasekharan, op.cit., 87 p.159.

120. Rosencranz et.al., Environmental Law and Policy in India: Cases, Materials and Statutes (1981), p.68.

121. M.K.Prasad, "Environment Act: Suggestions For Modification", 1987 C.U.L.R. 82.
For, most of the provisions of the Act focus themselves only upon environmental pollution and hazardous substances. See also Upendra Baxi, Environment Protection Act: An Agenda for Implementation (1987), p.6.

But, at the same time, it is quite different from the other two legislation the Water Act and the Air Act. It concentrates powers in the Central Government which can take all such measures as are necessary for the protection of environment and can constitute authorities and appoint officers for this purpose.¹²² It is a forward step to implement decisions taken at Stockholm in 1972.¹²³ It is called an umbrella legislation.¹²⁴

The Environment Act begins with an inclusive definition of 'environment'. But the definition of 'environment' pollutant has been circumscribed and confined to solid, liquid and gaseous substances¹²⁵ and from thereon, all the terms are defined only from the angle of industrial activities.¹²⁶ Similarly, the

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122. Environment (Protection) Act 1986 Sections 3 and 4. According to one author these powers are only to take measures for environmental protection. According to him, the legal status of 'measures' and the legal effect of these measures taken are not clear since the phraseology employed does not conform to the usual phraseology. P.M.Bakshi, Environment (Protection) Act, 1986 (III) 1992 p.6.
123. The Objects and Reasons of the Environment Protection Bill is that the legislative initiative is for implementing the decisions of the Stockholm Conference.
124. Rosencranz, op.cit., p.68. For it is designed to provide a framework for Central Government coordination of the activities of various Central and State activities established under previous laws such as Water Act and Air Act.
125. The definition of 'environment pollutant' leaves out noise, radioactive pollutants etc. Synchronising with the inclusive definition of 'environment'. It should have been "anything that disturbs the environment". See also Upendra Baxi, op.cit., p.6. and P.G.Kurup, "Environment (Protection) Act: A Scientist's View", 1987 C.U.L.R. 12.
126. See Environment (Protection) Act 1986 Section 2(c)-(g) and read the terms such as 'handling', 'hazardous substance', 'occupier', etc.

measures envisaged under the legislation give an impression towards an 'environment protection' goal, but the substantive provision in the Act seem to have shifted gradually towards control of industrial pollution.¹²⁷ The most important provision of this Act, which was subsequently added into the Water and Air Acts by amendments is the power to give directions.¹²⁸ The rule making power also includes specifically the power to make rules towards reducing industrial pollution.¹²⁹ Thus, Central Government enjoys sweeping powers for protecting and improving the quality of environment and preventing controlling and abating environmental pollution.

But the powers of the administrative mechanism envisaged under the Act are limited to fixing of standards and monitoring

127. Id., Section 3 (1) and (2) lays down the measures for the purpose of protecting and improving the quality of environment. Substantial part of Section 3(2) aim at control of industrial pollution by measures such as laying down emission or discharge standards, restricting the location of industries; procedures for prevention of accidents, safeguards for handling hazardous substances; inspection, examination etc of premises and polluting materials and establishing environmental laboratories.

128. Id., Section 5. The Government may issue direction which includes the direction for the closure, prohibition or regulation of any industry, operation or process or stoppage or regulation of the supply of electricity or water or any other services.

129. Environment (Protection) Act 1986, Section 6(2)(a)-(f).

them by inspection and by taking and analysing the samples.¹³⁰

There is no consent granting provision, the most important weapon for control of pollution under the Water and Air Acts. The miscellaneous provisions under chapter IV of the Environment Act are also inclined towards controlling industrial pollution.¹³¹

The Act has strengthened the penal provisions¹³² and ensured locus standi of citizens to complaint against alleged offences.¹³³ But the overriding effect given to other Acts in case of overlapping jurisdiction has blown off the strength of penal provisions and reduced it to a provision compared to "a barking dog that never bites".¹³⁴

130. Id., Sections 7-17. Chapter III of the Act covers only measures for the prevention, control and abatement of environmental pollution or to say industrial pollution. The main topics dealt with are (1) persons carrying on industry, operation etc not to allow emission or discharge of environmental pollutants in excess of the prescribed standards, (2) handling of hazardous substances with procedural safeguards, (3) furnishing information to authorities and agencies, (4) power of entry and inspection, (5) power to take samples, (6) Environmental laboratories, (7) Government Analysts, (8) Reports of Government Analysts, (9) Penalty for contravention of the provisions of this Act, and Rules, Orders and Directions, (10) offences by companies and (11) offences by Government Departments.

131. Id., Section 25 provides the list of matters for which the Central Government may provide rules. All of them are exclusively directed towards avoiding industrial pollution.

132. Id., Section 15. Imprisonment for upto five years or fine to one lakh or both with an increased fine or five thousand rupees per day if failure or contravention continues.

133. Id., Section 19.

134. Id., Section 24. Where any act or omission constitutes an offence punishable under this Act as well as under any other Act, then the offender shall be liable to be punished under the other Act and not under this Act.

Citizens suits are possible but can be filed only after giving a sixty days notice. Locus standi of the citizens has been ensured but public participation in decision making is not specifically provided. Preventive measures may seem to be out of reach since environmental impact assessment, economic incentives and active public participation etc could not find any place within this legislation. However, these things could be done by framing delegated legislation. It is also criticized as an enabling legislation drafted with misconceived contention.¹³⁵

A review of the provisions show that the Environment Act supplements the other two statutes, Water Act and Air Act.¹³⁶ Multiplicity of regulatory agencies¹³⁷ to which the Central

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135. P.G.Kurup, "Environmental Protection Act: A Scientist's View", [1987] C.U.L.R. 12 at p.14.
The Act is drafted with the misconceived contention that protection and improvement of environment are synonymous to abatement of pollution. Pollution is misconceived to be environment quality degradation caused by discharge of pollutants and pollutants are misunderstood as substances injurious to the environment.
136. Many of the provisions are common in the three Acts. For a comparative assessment of the different section of these three Acts see n.18 in N.S.Chandrasekharan, op.cit., 258 at p.261.
137. For example Department of Environment has assumed the role of the rule making on behalf of the Central Government. Through notifications from time to time the Government has authorised officers empowering them under different sections such as:
- 1) E.P.Notification S.O.394(E) dtd 16.4.1987-under Section 19, the Central Government authorized the officers and authorities with the jurisdiction for cognizance of offences.
 - 2) E.P.Notification S.O.83(E) dtd 16.2.1987-under Section 10 Central Government empowers the persons listed with power of entry and inspection.
 - 3) E.P.Notification S.O.84(E) dtd 16.2.1987-under Section 11 Central Government empowers the same officers above mentioned with power of taking samples.

Government has delegated powers under the Environment Protection Act may seem to have reduced the effect of this Act considerably. The effort to centralize the powers did not become fruitful. However, it may be said that a sort of co-operative federalism works in the sectors where the operation of the new Environment Act has its impact. Though it is within the powers of Central Government to constitute any authority or authorities for this purpose, the fact that no such authority has been constituted reduced the seriousness of this Act, for it is being managed by the same authority dealing pollution matters under the Water Act and Air Act.

1. Delegated Legislation under the Environment Act

Environment (Protection) Rules

The rule making power is the Samson's strength used extensively for supplementing and stuffing those rudimentary provisions¹³⁸ as well as for filling the gaps and making the Act a powerful weapon against environmental degradation due to industrial pollution. The Environment (Protection) Rules 1986 published after six months stands side by side with the Act elaborating those enabling provisions laying down procedure for

f.n.contd.

4) E.P.Notification S.O.728(E) dt.21.7.1987-under Section 12 and 13 Central Government recognises environmental laboratories to carry out functions entrusted and the persons as Government Analysts for analysis samples.

138. Id., sections 6 (1) and (2).

implementation.¹³⁹ Its significance is great because these Rules recognise pollution control Boards as authority to implement the standards fixed, with power to specify more stringent standards if necessary.¹⁴⁰ The idea rated to some extent by providing the list of factors to be taken into consideration while prohibiting or restricting the location of industries and prescribing the procedure that included information and public participation.¹⁴¹

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139. Environment (Protection) Rules 1986 laid down procedure for taking samples (R.6) procedure for submission of samples for analysis and the form of laboratory report thereon (R.8) functions of environmental laboratories (R.9) qualifications of Government Analyst (R.10) manner of giving notice (R.11) etc. Later by notification No.S.O.83(E) dt.Feb.16, 1987 Central Government empowered the persons listed under Section 10 of the Act. This list contains 59 officers appointed under various Acts to have this power. Again, by notification No. S.O.84(E) dt. 16th Feb.1987 the Central Government empowered the same officers to take samples under Section 11 of the Act.
140. Id., Rule 3 (1) and (2). Schedule I lays down the list of industries, parameters and standards for effluents in detail. This list is amended from time to time adding new categories into it.
141. Id., R.5. Rules provide the factors to be considered while locating industries and give the procedure to be followed prohibiting or restricting the location of industries. They also allow public participation by giving sixty days time for filing objection before the Central Government imposes such prohibition or restrictions. Rules were used later for restricting the location of industries in the coastal area as well as imposing environmental clearance by the Central Government for the expansion or modernisation or new projects.

Again, duty is cast on the person in charge of the place in case of apprehended pollution to intimate the same to authorities concerned¹⁴² and the Central Government is to take special care while prohibiting or restricting the handling of hazardous substances.¹⁴³ Though the definition of environmental pollutant did not cover noise, the ambient air quality standards in respect of noise is fixed from different areas at different times.¹⁴⁴

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142. Id., R.12. In case of discharge of environmental pollutants in excess of the prescribed standards or in case of apprehended pollution due to accident or unforeseen act or event, intimation shall be given to
- 1) the district or regional officer in charge of emergency or disaster relief operations;
 - 2) the Central Board or a State Board, as the case may be, and its regional officers having local jurisdiction by delegated powers under Section 20, 21, 23 of the Water Act and Section 24 of the Air Act; and
 - 3) the Statutory authorities or agencies II gives the list of authorities appointed under various Acts and having jurisdiction in case of pollution disasters.
143. Id., R.13. R.13(2) envisages public information and public participation by providing for notification and filing objections by interested persons before imposing any prohibition or restriction. This is a step in the right direction, an improvement from that of the Water Act and Air Act which even after the latest amendments provide only for moving the court giving sixty days notice alleging an offence of pollution caused.
144. Id., Schedule III inserted by G.S.R.1063(E) dt. 26th December 1989 categorises different areas - industrial, commercial, residential and silent zones and fixes the standard of noise permissible both during the day and at night.

Apart from the Environment (Protection) Rules, preventive and monitoring devices envisaged in detail through those notifications from time to time has increased the significance of this umbrella legislation in controlling industrial pollution.

2. Management and Handling of Hazardous Wastes

Hazardous Wastes (Management and Handling) Rules 1989 are applicable to the hazardous wastes listed¹⁴⁵ therein in the Rules.¹⁴⁶ Those who generate hazardous waste beyond the permitted quantity¹⁴⁷ shall ensure proper handling and disposal of such waste without any adverse effect by proper collection, reception, treatment, storage and disposal.¹⁴⁸ In order to generate or store such waste one should get an authorisation from the State Pollution Control Board.¹⁴⁹ State Pollution Control Board enjoys wide powers under these rules. State Pollution Control Board is the authority to

145. Hazardous Wastes (Management and Handling) Rules, 1989. By notification No.S.O.594(E) dated July 28, 1989.

146. R.2. These rules apply to hazardous wastes specified in the Schedule as well as
 (a) waste water and exhaust gases as covered under the Water Act and Air Act;
 (b) wastes arising out of the operation from ships beyond five kilometres as covered under Merchant Shipping Act, 1958 and rules thereunder; and
 (c) radioactive wastes as covered under the provisions of Atomic Energy Act, 1962 and rules thereunder.

147. Id., Hazardous, Wastes (Management and Handling) Rules 1989. The Schedule gives the categories of hazardous wastes, types of wastes and regulatory quantities. The eighteen categories of hazardous wastes with permitted quantity (Kilogramme per year) is given in detail.

148. Id., R.4.

149. Id., R.5.

grant permission for the handling and disposal of hazardous waste. Application to be submitted to the Board which shall satisfy that the operator of a facility or an occupier possesses appropriate facilities, technological capabilities and equipments to handle hazardous waste and issue authorisation. But it can be done only after giving reasonable opportunity of being heard. The Board also has the power to cancel or suspend authorisation which otherwise is valid for two years subject to renewal or revocation. The Board can also give directions to the persons whose authorisation has been suspended or cancelled for the safe storage of the hazardous waste. The occupier and operator of a facility shall send annual return to the State Pollution Control Board. In case of import of hazardous waste also, pollution control board is to examine each case on merit before allowing the same.¹⁵⁰ In addition to this, the State Government or a person authorised is entrusted with specific functions.¹⁵¹ These rules permit import of hazardous waste for processing or reuse as a raw material only, not for dumping or disposal.¹⁵²

150. The State Pollution Control Board may, after giving reasonable opportunity of being heard, refuse to grant any authorisation.

151. Id., R.8. The State Government or the person authorised by it shall undertake a continuing programme to identify the sites and compile and publish periodically an inventory of disposal sites within the State for the disposal of hazardous waste after undertaking an environmental impact study.

152. Id., R.11. The exporting country or exporter shall communicate in Form 6 to the Central Government.

3. Hazardous Micro-organism

The Hazardous Micro-organism Rules, 1989¹⁵³ is to protect the environment, nature and health in connection with the application of genetechonology and micro-organisms.¹⁵⁴ Among other things these rules are applicable in specific cases to production, manufacturing, processing, storage, import, etc of Genetically Engineered products as well as the production, manufacture etc of drugs and pharmaceuticals and food stuffs, distilleries and tanneries etc which make use of micro-organisms and genetically engineered micro-organisms one way or the other.¹⁵⁵ For the implementation of the object, these rules envisage the constitution

153. Notification No.G.S.R.1037(E) Dtd December 5, 1989. These rules are for the manufacture, use, import, export and storage of hazardous Micro-organisms/ Genetically Engineered Organisms or Cells.

154. Indiscriminate use of genetechonology and micro-organisms may ultimately result in health hazards. For in genetic engineering new combinations of genetic materials are made which naturally do not occur. The whole process being something beyond the natural processes every possibility is there for ill effects or consequences to health as well as environment.

155. Id., R.2 (4) (c) and (d).

of different committees¹⁵⁶ at different levels¹⁵⁷ with different functions such as advisory, monitoring, planning, approval and inspection.¹⁵⁸ Thus implementation starts at the grass roots

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156. Id., R.4. This committees constituted are
- 1) Recombinant DNA Advisory Committee (RDAC)
 - 2) Review Committee on Genetic Manipulation(RCGM)
 - 3) Institutional Bio-safety Committee (IBSC)
 - 4) Genetic Engineering Approval Committee (GEAC)
 - 5) State Biotechnology Co-ordination Committee(SBCC)
 - 6) District Level Committee
157. Ibid., These committees are to function under authorities such as RDAC: Department of Biotechnology
RCGM: Department of Biotechnology
IBSC: Constituted by an occupier or any person including research institutions handling micro-organisms and genetically engineered organisms
GEAC: Department of Environment, Forests and Wild Life
SBCC: State Government
Dist.Level Committee: Under District Collectors.
158. Ibid., Thus RDAC is the Advisory Committee, to recommend suitable and appropriate safety regulations after reviewing developments in Biotechnology at national and international levels.
RCGM monitor the safety related aspects in respect of ongoing research projects and activities involving genetically engineered organisms and hazardous micro-organisms.
IBSC-Prepare an upto date on-site emergency plan and make available copies to the Dist.Level Committee/State Biotechnology Co-ordination Committee and Genetic Engineering Approval Committee.
GEAC-Approval of activities involving large scale use of hazardous micro-organisms and recombination in research and industrial production from environmental angle. It is also responsible for approval of proposals relating to release of genetically engineered organisms and products into the environment including experimental field trials.
SBCC-to inspect, investigate and take punitive action in case of violations of statutory provisions. It shall also review periodically the safety and control measures in various industries institutions handling such organisms.
Dist.Level Committee-Shall visit the installations engaged in such activities, formulate information find out hazards and risks associated with each of these installations and coordinate activities with a view to meeting any emergency. Also prepare an off-site emergency plan. Also submit regularly its report to the State Biotechnology Co-ordination Committee, Genetic Engineering Approval Committee.

under the supervision of hazardous micro-organisms and genetically engineered organisms is ensured by measures like approval, prohibition and licensing.¹⁵⁹ Industrial production in which such organisms are generated or used requires the consent of GEAC with respect to the discharge of such things into the environment.¹⁶⁰ Deliberate or unintentional release is restricted¹⁶¹ and is permissible only in exceptional case.¹⁶²

In cases requiring immediate action, in order to prevent any damage to the environment, nature or health, the District and State Level Committee may take necessary steps and charge the expenses from the person responsible for such damage.¹⁶³ But the power exempting occupiers or persons from certain obligations is with the Ministry of Environment thus restricting the powers of other authorities.¹⁶⁴

159. Id., R.7(1). Thus without approval no person shall import, export, transport, manufacture, process, use or sell any such organisms.
 (2) These rules also restrict that the use of such things shall be allowed only in laboratories or inside laboratory areas notified by the Ministry of Environment and Forest for the purpose under Environment (Protection) Act, 1986.
 (3) Licence is mandatory for the operation or use of such organisms mentioned in the Schedule for scale up or pilot operations.

160. Id., R.8.

161. Id., R.9.

162. Id., RR.10, 11.

163. Id., R.15.

164. Id., R.20 reads:

"The Ministry of Environment and Forests shall, wherever necessary exempt only occupier handling a particular micro-organism, genetically engineered organisms from rules 7.11".

4. Manufacture, Storage and Import of Hazardous Chemicals¹⁶⁵

These rules regulate industrial activities in which operation of processes involve hazardous chemicals or isolated storage or pipelines in which there is involved a quantity of hazardous chemicals.¹⁶⁶ It is the duty of authorities concerned to inspect the industrial activity and submit annual report on the compliance of rules by the occupiers to the Ministry of Environment and Forests.¹⁶⁷ It is the responsibility of the occupier to identify the major accident hazards and take preventive steps such as providing information, training and equipments including antidots necessary to ensure their safety.¹⁶⁸ Occupier is to notify the occurrence of major accidents on the site to the authority concerned, who in turn shall undertake full analysis of the accident and send information to the Ministry of Environment.¹⁶⁹ The occupier shall also notify to the authority steps taken to avoid any repetition of such occurrence on a site.¹⁷⁰ These rules envisage control over the use or storage of hazardous chemicals by insisting that an

165. Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 S.O.966 (E) dated 27th November 1989 in 1989 C.I.E. p.144

166. Id., R.2(h)(i,ii,iii). The Schedule I attached gives a long list of 434 hazardous chemicals while Schedule II gives a list of isolated storage at installations.

167. Id., R.3.

168. Id., R.4.

169. Id., R.5. The Report shall be send within 90 days to the Ministry.

170. Ibid.

industrial activity shall be undertaken only after getting approval from the authority concerned.¹⁷¹ Existing activities as well as those making charges in the threshold quantities also has to submit report to the authority.¹⁷² A safety report has to be prepared containing all types of inforamtions¹⁷³ Thus it is noteworthy that in industrial activities concerned are to be alert always. This includes preparation of on-site emergency plan by the occupier¹⁷⁴ and off-site emergency plan by the authority.¹⁷⁵ Right to information has been protected by the provision that information has to be given to persons liable to be affected by a major accident.¹⁷⁶ Again import of such hazardous chemicals is brought under the control of authorities.¹⁷⁷

5. Eco Mark

The scheme for labelling environmentally friendly products is designed to enthuse the manufacturers of products to reduce

171. Id., R.7.

172. Id., R.8. This report has to be submitted within three months after the date of coming into operation of these rules. Id., R.9.

173. Id., R.10. After the commencement of the Manufacture, Storage and Import of Hazardous, Chemicals (Amendment) Rules, 1984, the occupiers of both the new and existing, industrial activity shall carry out an independent safety audit. Id., R.10 (4).

174. Id., R.13.

175. Id., R.14.

176. Id., R.14 and 16.

177. Id., R.18.

and eliminate pollution at the manufacturing stage, to give them incentive and to guarantee the consumers environmentally friendly products.

Notification For Labelling Environment Friendly Products¹⁷⁸ elaborates the Government scheme on labelling products.¹⁷⁹ It is a national policy of fixing environment standards for household and other consumer products.¹⁸⁰ The objectives¹⁸¹ show that the scheme envisaged is specifically for control of industrial pollution by preventive measures. Thus 'ECOMARK' is awarded to products in order to promote the use of such products by encouraging and

178. Notification no. G.S.R.85 (E) dtd February 20, 1991,. 1991 C.C.L. p.183.

179. Ibid. Any product which is made, used or disposed of in a way that significantly reduces the harm it would otherwise cause the environment could be considered as Environment Friendly Product.

180. Ibid.

181. Id., paragraph 2. The specific objectives of the scheme include:

- 1) To provide an incentive for manufacturers and importers to reduce adverse environmental impact of products.
- 2) To reward genuine initiatives by companies to reduce adverse environmental impact of their products.
- 3) To assist consumers to become environmentally responsible in their daily lives by providing information to take account of the environmental factors in their purchase decisions.
- 4) Ultimately to improve the quality of the environment and to encourage the sustainable management of resources.

educating consumers for the same which in turn will compel manufacturers to adopt environment friendly devices in the manufacturing processes.¹⁸² This programme is implemented through a three tier administrative mechanism. There are three stages leading to the award of the ECOMARK -

- (1) a steering committee set up in the Ministry of Environment and Forests determines product categories for coverage under the Scheme and formulate strategies for promotion, implementation etc in the working of the scheme;
- (2) a Technical Committee set up in the Central Pollution Control Board identifies the specific product to be selected and the individual criteria to be adopted.
- (3) the Bureau of Indian Standards assesses and certifies the products and draws up a contract with the manufacturers, allowing the use of the label, on payment of a fee.

These committees are constituted with administrators, scientists and Directors of eminent institutions to study. They formulate, identify and recommend strategies and criteria for the eco labelling, whereas the Bureau of Standards implement the scheme by assessing each product for its quality.¹⁸³ Thus manufacturers of products falling under notified categories have to apply for and get the ECOMARK for their product through

182. Id., para 3.

183. Ibid.

testing and certification by the Bureau of Indian Standards.¹⁸⁴
 Considering the environmental impact¹⁸⁵ criteria for various
 products have already been fixed under this scheme.¹⁸⁶ The
 logo for ECOMARK has already been adopted.¹⁸⁷

184. Id., para 4.

185. The products are examined in terms of environmental impact such as:

- a) least potentiality for pollution in production, usage and disposal;
- b) recycleability and biodegradable nature of the product
- c) contribution to the saving of non-renewable resources and
- d) reduction of the adverse primary criteria...

186. Products for which the criteria have been finally notified are soaps, detergents, papers and paints. Products for which the draft criteria have been notified and which will be finalised after considering objections and suggestions are (1) plastics, aerosols, wood substitutes, edible oil, tea and coffee, lubricating oils, textiles diaper etc, packaging I, beverages infant food, processed food and vegetable products, electrical and electronic goods, cosmetics, preservatives and food additives, packaging II dry cell and lead acid batteries, pesticides, insecticides bioxides weedicides and drugs.

187. See Appendix -6

6. National Awards

The Government instituted this scheme of National Awards¹⁸⁸ as an incentive to provoke a competitive spirit among industries by encouraging them to take significant steps for the prevention of pollution.¹⁸⁹ The categories of highly polluting industries as well as small scale industries are elucidated.¹⁹⁰ This notification is a step to enhance the voluntary involvement of industries in prevention and control of pollution. Thus the industries have to introduce an environmental protection system¹⁹¹ with environmental audit programme.¹⁹² The notification also lays down the

188. Notification No.G.S.R.736(E) dt.August 26, 1992 in the Gazette of India, Extra-Part II Section 3 (i) dt. 26th August 1992 p.3-4; 1992 C.C.L. p.550. The Award granted each year, will be in the form of a trophy and a citation which will be retained permanently by the awardee.

189. Id., para 2. The measures for the prevention of pollution such as use of clean technology, conservation of natural resources, preventing the generation of pollutants, product reformation or substitution to avoid its environmental impact etc.

190. Id., para 4.

191. Id., para 7. Such as a policy defined for the units as a whole, an environmental programme for the site concerned and a management system defining the organisational measures and working procedures.

192. Ibid. The environmental audit programme includes the preparation of an environmental statement on the problems brought to light during the environmental review, figures on the units performance, summary of the policy, programmes and objectives pursued at the site and information on the intentions and steps taken to achieve these objectives. This information is to be made a part of the Report of the Board of Directors in the Annual Statement of Accounts of the Unit.

criteria for deciding the eligibility for the award.¹⁹³ The selection committee¹⁹⁴ review the nominations for the awards forwarded by the Pollution Control Board of the State¹⁹⁵ and winners will have the privilege of issuing to their employee lapel pins, ties or other distinctive badges with the symbol ENV in a circle embossed on their letter heads and advertisements.¹⁹⁶ They can also use this symbol in their letter heads and only advertisement issued by them. An overall assessment of this notification shows that it not only is an incentive but also gives the industries a chance of self-assessing their environmental programmes which is important in the effective implementation of pollution control.

193. Id., para 8 and 9.

It is an assessment of the measures taken by the unit in this direction, soundness of the approach, means for abatement such as reduction, reuse, recycling or any beneficial use of waste generated; substantial and steady reduction in the effluents and emissions in the year etc. Quantitative and qualitative control of pollution and measurable environmental impact on the environment are the significant major criteria for the selection while meeting the standards prescribed is the prime factor for such eligibility.

194. Id., para 12. The Committee consists of 11 members from different stratas.

195. Id., para 10 and 11. State Pollution Control Board where the unit is located is the authority for sponsoring nominations.

196. Id., para 13.

7. Coastal zone regulation

Notification on coastal Regulation Zone, 1991¹⁹⁷ is aimed at protecting coastal areas and ensuring environmentally friendly use of, and activities in, such areas.¹⁹⁸ It ensures the control of industrial pollution by restricting industrial activities in the declared coastal Regulation Zone.¹⁹⁹ This restriction includes prohibition of certain activities²⁰⁰ and regulation of those permissible activities.²⁰¹ Thus setting up of industries except those directly related to sea front or directly needing foreshore facilities are prohibited. Other prohibited activities having significance in the control of industrial pollution vary from control of manufacturer, handling, storage, or disposal of hazardous substances, setting of units or mechanisms for disposal of wastes and effluents, discharge of untreated wastes and effluent from industries, dumping of ash from thermal power stations, etc.

197. Notification No.S.O.114 (E) dt. Feb.19, 1991 in the 1991 C.C.L. at p.125.

198. Ibid.

199. Ibid. Coastal Regulation Zone includes the coastal stretches of seas, bays, estuaries and creeks which are influenced by tidal action (in the landward side) upto 500 metres from the High tide line and the land between the Low Tide Line and the High Tide Line.

200. Id., para 2.

201. Id., Annexure I.

For the purpose of regulating those permitted activities a clearance from the Ministry of Environment and Forests is made mandatory. The coastal states and Union - Territories shall prepare Coastal Zone Management Plan identifying and classifying the coastal stretches within their respective territories in accordance with the guidelines. The coastal zones are classified into four categories on the basis of its environmental significance.²⁰² The development or construction activities in different categories of CRZ areas are to be regulated by the concerned authorities in accordance with the norms laid down by the notification.²⁰³

8. Environmental Audit

The programme for an audit report is made compulsory by the Environment (Protection) Second Amendment Rules,

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202. Category I - Ecologically sensitive areas and Area between the Low Tide Line and High Tide Line.
 Category II- Developed areas upto or close to the shore.
 Category III-Areas that are relatively undisturbed not coming under either Category I or II.
 Category IV- Coastal stretches in the Andaman, Lakshadweep and small islands except those designated as CRZ-I, II or III.
203. The norms laid down do not permit any new construction within 500 metres of High Tide Line. No construction activity except the one for carrying treated effluents and waste discharges into the sea, facilities for carrying sea water for cooling purposes etc will be permitted between Low Tide Line and High Tide Line. The norms permit only reconstruction of the authorised buildings subject with the existing norms in the category II while restricted and regulated use of category III is possible. The norms are prescribed specially for category IV permitted very restricted use of such areas.

1992.²⁰⁴ The attempt is to promote a self-declaration by the industries every year as to the extent of control of pollution.²⁰⁵ The programme enables the industry to render voluntary information.²⁰⁶ By amendment, the expression 'audit report' has later been changed to 'environmental statement'.²⁰⁷ According to one author,²⁰⁸ the very thought of environmental audit is premature and a misnomer because, to be an audit it must be an independent certification.

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204. Notification No.G.S.R.329 (E) dt.13th March 1992 in 1992 C.C.L. III p.178.
Thus a new Rule 14 is added which inserts "the submission of environmental audit report - Every person carrying on an industry, operation or process, requiring under S.25 of Water Act, 1974 or under Section 21 of the Air Act or authorisation under the Hazardous Wastes (Management and Handling) Rules, 1989 shall submit an environmental audit report for the financial year..."
205. Ibid. The Form V contains 9 parts (A to I) requiring data such as water and raw material consumption, pollution generated, hazardous wastes, solid wastes, characteristics of the hazardous waste and solid waste, the impact of the pollution control measures on conservation of natural resources and consequently the cost of production.
206. Environment (Protection) Second Amendment Rules, 1992 contains insertion of Rule 14 and the format for the submission of the Audit Report.
207. 1993 C.C.L. p.244.
208. Laxmi Pappu, "Environment Audit Report - A Critique", in (1992) 2 Comp.L.J. p.29.

The audit report,²⁰⁹ a periodic document to evaluate the work in the environmental perspective identify the lacunae in perception and also will be a source of information to the general public.²¹⁰ But the programme of environmental auditing introduced as a statutory requirement by the amendment to the Environment (Protection) Rules, 1986 is very brief and lack the procedure as well as the phases of the process to be followed by the industries.²¹¹ Later, efforts are made by industries in collaboration with NEERI and Pollution Control Board to evolve a criteria for the preparation

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209. International Chamber of Commerce (ICC) defines the environmental auditing as "A management tool comprising a systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performing with the aim of helping to safeguard the environment by (1) Assessing compliance with company policies, which would include meeting regulatory requirements". As given in R.R.Naik and G.Subramaniam, "Case Study and Benefits of Environmental Auditing at Cochin Refineries Limited" paper presented at Workshop on Environment Audit (30th April 1993 Kochi) by confederation of Indian Industry (Southern Region) Kerala.
210. At the above mentioned workshop the participants agreed to this fact. Both, the Environmental Scientists and the Industry representatives considered the pros and cons of this auditing and concluded that such an auditing has many advantages.
211. The Amendment contains just a declaration, the format in the Appendix.A.

of this report.²¹² Thus the programme if properly carried out, is no doubt an important tool in the efficient management of environmental work assessment in industry and also a response to public request for greater industry involvement in environmental protection task.²¹³ But diversity of industrial activities calling for technical expertise drawn from different disciplines and the demand for an unbiased professional body of experts for the same are impediment at present for the implementation of this programme.²¹⁴

9. Environment Impact Assessment

The long cry of environmentalists and academicians at last reached the law makers and notification under Environment

212. Thus a workshop was held on 30th April, 1993 at Kochi by the Confederation of Indian Industry (Southern Region) Kerala participating industries, NEERI, Kerala Pollution Control Board as well as Academicians from Cochin University. Industrialists highlighted the difficulties that they find in preparing such a report, while NEERI came forward to trace the evolution on Environmental Audit and assess the advantages and disadvantages of such an auditing. Cochin Refineries Limited came out to educate the participants the way in which or the procedure followed by them to prepare such a report. Both NEERI and Cochin Refineries Limited put forward 'Guidelines' to be followed by the industries in preparing the report thus filling to some extent the deficiency, op.cit., p.209.

213. R.R.Naik and G.Subramaniam, op.cit.,

214. Laxmi Pappu, "Environmental Audit Report - A Critique" op.cit., p.30.

(Protection) Act and Environment (Protection) Rules introduced the process of environmental impact assessment.²¹⁵ Factors like distribution of powers between the Centre and States projected itself since Central interference on State subjects in the name of environmental protection essentially invited the charge of the notification eroding state powers.²¹⁶ Such impediments delayed the process for nearly two years - when at last in 1994 the final notification on Environmental Impact Assessment came into being.²¹⁷

Environmental clearance notification identified problems like destruction of natural resources and pollution affecting the health and very survival of living beings. Protection and improvement of the quality of environment by control of pollution and restricting developmental activities to the carrying

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215. Notification No.S.O.85 (E) dtd January 29, 1992 published in the Gazette of India, Extra-Part II Section 3 (ii) dtd 29th Jan'92 pp.7-11 or 1992 C.C.L. p.59.
216. Environment Act Notification "Raising a storm of protest" in Indian Express (Cochin) 6.4.1992.
217. Notification No.S.O.60(E) dtd 27th January 1994 published in the Gazette of India, Extra-Part II Section 3(ii) dated 27th January'94 pp.4-7.

capacity of the eco-system are the goals to be achieved by proper Environment Impact Assessment and necessary Environment Management Plan.²¹⁸

Generally speaking, the expansion or modernisation of any activity if the pollution load is to exceed the existing one or new projects listed in Schedule I²¹⁹ require an environmental clearance by the Central Government in accordance with the procedure specified in the notification.²²⁰ But the application of this notification is restricted by the exemption clause²²¹ and an environmental clearance in the strict sense is mandatory only for items, 4, 6, 8, 11, 15, 18, 20, 22, 23, 24 and 26 irrespective of the

218. Supra. n.216. These goals are to be achieved by careful assessment of a project proposed to be located in any area for the prevention, elimination or mitigation of the adverse impact right from the inception stage of the project.

219. Id., The Schedule I gives a list of 29 items.

220. Id., para 4 of the notification contains the procedure in detail

- 1) The procedure consists of submission of the application by the desiring person in the proforma specified in Schedule along with an Environmental Impact Assessment Report and an Environment Management Plan to the Secretary Ministry of Environment and Forest, New Delhi.
- 2) Evaluation and assessment of the same by the Impact Assessment Agency with a committee of experts as per Schedule III.
- 3) Impact Assessment Agency will prepare a set of recommendations based on various factors.
- 4) Grant or reject the application within a period of ninety days, valid for a period of five years from commencement of the construction or operation.

221. Id., para 3.

amount invested.²²² In the case of site specified projects, preliminary site clearance from the Central Government is compulsory while initiating any investigation and surveys.²²³ The notification also provides for public participation and information to a certain extent.²²⁴

Public Liability Insurance Act, 1991

The object of this Act is to safeguard the interest of the victims of accidents as well as enable the industry to discharge its liability in settling claims arising out of major accidents.²²⁵ The common law liability of the owner to give relief to any victims

222. Ibid.

(1) Petroleum Refineries including crude and product pipelines, (2) Pesticides (Technical), (3) Bulk drugs and pharmaceuticals, (4) Asbestos and Asbestos products, (5) Integrated paint complex including manufacture of resins and basic raw materials required in the manufacture of paints.

223. Id., The site clearance is mandatory for
 (a) mining, (b) pit-head thermal power stations,
 (c) hydro-power, major irrigation projects and/or their combination including flood control,
 (d) ports and harbours (excluding minor ports),
 (e) for prospecting and exploration of minerals above 500 hectares.

224. Id., para 2. Thus the set of recommendations prepared by the Impact Assessment Agency shall be made available subject to the public interest to the concerned parties or environmental groups on request. Similarly, comments of the public may be solicited, if so decided by the Impact Assessment Agency. Public shall be provided access to the summary of the reports/Environmental Management Plans subject to the public interests.

225. Public Liability Insurance Act, 1991 (Act 5 of 1991) in 1991 C.C.L. II p.45. The objectives of the Act is to provide immediate relief which would not prevent the victims to go to court for claiming larger compensations.

is given a statutory recognition, the long felt need projected throughout judicial review of environmental problem. Bhopal tragedy has accelerated this long felt necessity to shape such a statutory provision.²²⁶

The Public Liability Insurance Act is a double edged weapon for, in addition to the relief to the victims, other than workers, the Act envisages a scheme aiming at reducing the burden of the owners of industrial entities.²²⁷ It is a no fault liability.²²⁸ Thus, the duty of the owners to insure and liability to pay damages are the two important features of the

226. Thus, growth of hazardous industries and accompanying risk from accidents to the public and the unwillingness of the industrialists to readily compensate, necessitated the legislative interference to provide a mandatory insurance for compensating the victims of hazardous industrial processes. See Karkara's commentaries on Public Liability Insurance Act, (1991), p.1.

227. Section 4. Duty of owner to take out insurance policies. Thus those who handle by starting new industry or already having such industries before the commencement of this Act shall take out insurance policy to insure against liability to give relief under Section 3 (1).

228. Section 3 (1) provides that where death or injury to any person (other than a workman) or damage to any property has resulted from an accident, the owner shall be liable to give relief as specified in the Schedule. Section 3(2) proclaims it as a 'no fault liability' for, the claimant shall not be required to plead and establish that the death, injury or damage was due to any wrongful act, neglect or default of any person.

Act thereby providing interim compensation in cases of industrial accidents.²²⁹ The District Collector is the authority to implement the provisions of this Act by following the procedure for the same.²³⁰ An application for claim for relief may be made not just by the person who has sustained injury.²³¹ This right to claim

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229. The word accident is redefined by the 1992 Amendment of the Act (The Public Liability Insurance Amendment Act, 1992 No.11 of 1992, 31st March 1992) in C.C.L. 1992 p.184
 'Accident' means an accident involving a fortuitous, sudden or unintentional occurrence while handling any hazardous substance resulting in continuous or intermittent or repeated exposure to death of, or injury to, any person or damage to any property but does not include an accident by reason only of war or radio activity".
230. Sections 5 and 7. The District Collector is to -
 (1) verify the occurrence of such accident, (2) cause publicity to be given for inviting application under Section 6 (1), (3) receive the application, (4) give notice of the applicant to the owner, (5) give the parties an opportunity of being heard, (6) hold an inquiry into the claim and make an award determining the amount of relief specifying the person or persons to whom such amount shall be paid.
231. Section 6 application for claim may be made -
 (1) by the person who has sustained the injury,
 (2) by the owner of the property to which the damage has been caused.
 (3) where death has resulted from the accident, by all or any of the legal representatives of the deceased or
 (4) by any agent duly authorised by such person or owner of such property or all or any of the legal representatives of the deceased, as the case may be.

compensation is in addition to any other right to claim compensation, for, it is only an interim relief.²³² The Central Government can authorise any person with the power to call for²³³ information, entry and inspection or search and seizure in addition to its power to give directions similar to that under the other three environmental statutes.²³⁴ Again cognisance of offence is left with the Central Government or any authority or officer

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232. Section 8. § By Notification No.780(E) dtd Nov.15, 1991
 233. Section 9 - 11. § this power is delegated to the State Govern-
 § ment to exercise it with their respective
 jurisdiction and the Central Pollution Control
 Board for the whole of - India subject to
 recovation in public interest.
234. Section 12. This power to give directions is the same as similar provision under Water Act, Air Act and Environment (Protection) Act which includes the power to direct .
 (a) prohibition or regulation of the handling of any hazardous substance or
 (b) stoppage or regulation of the supply of electricity, water or any other service. By notification No.S.O. 779 (E) dtd November 15, 1991 the Central Government delegated this power to the respective State Governments subject to revocation at any time.

authorised in this behalf by that Government.²³⁵

Penalty for the contravention of provisions or failure to comply with any direction under section 12 is high²³⁶ and the Schedule elaborates the rate of interim compensation for injury

235. By notification No.282 (E) dated March 19, 1993 the Central Government authorised the officers and authorities listed in the table for the purpose with the jurisdiction under Section 13(1) and Section 18(a), 1993 C.C.L. p.317. It contains the list II officers and authorities such as
- 1) Any Director, Joint Secretary, Adviser or Additional Secretary to the Government of India in the Department of Electricity and Fire - (Whole of India).
 - 2) The Chairman or Member - Secretary of Central Pollution Control Board (Whole of India).
 - 3) The Government of the State represented by the Secretary to the State Government in charge of Environment (Whole of India).
 - 4) The Chairman or Member-Secretary of State Pollution Control Board (Whole State).
 - 5) The Chairman or Member Secretary of Union Territories.
 - 6) District Collector - (Whole District)
 - 7) Regional Officers of the Central Pollution Control Board who have delegated powers under Section 20,21 and 23 of Water Act and Section 24 of Air Act - Area of laid by Central Board.
 - 8) Regional Officers of State Pollution Control Board who have delegated powers under Section 20, 21 and 23 of Water Act - Area as laid by State Board.
 - 9) Regional Officers of the State Pollution Control Board who have delegated powers under Section 24 of Air Act - Area as laid down by the State Board.
 - 10) Any regional/zonal Officers or a Director in charge of a Regional Zonal Office of the Ministry of E & F - Zonal Regional Area as laid down by Ministry of E&F.
 - 11) Joint Director (Legal) in the Department of E&F - whole of India.
236. Section 14. The Act prescribes imprisonment for a term not less than one year and six months extending upto six years or with fine not less than one lakh or both for contravening Section 4 (1) and (2) and direction under Section 12.

sustained or loss of property.²³⁷ Public Liability Insurance (Amendment) Act, 1992²³⁸ added a new Section 7-A which confirmed the liability further by the establishment of an Environment Relief Fund by the Central Government²³⁹ to which every owner shall, together with the amount of premium, pay through the insurer an amount not exceeding the amount of premium.²⁴⁰ The Collector is authorised to pay relief from this fund and the owner shall deposit such amount as directed by the Collector.²⁴¹ But, at the same time, the maximum extent of liability is limited.²⁴² The

237. Schedule states:

- 1) Reimbursement of medical expenses upto a maximum of Rs.12,500 in each case
- 2) For fatal accidents the relief will be Rs.25,000/- per person in addition to medical expenses if any upto Rs.12,500/-
- 3) For permanent total or permanent partial disability or other injury or sickness, the relief will be (a) medical expenses upto Rs.12,500/ in each case and cash relief on the basis of percentage of disablement as certified by a physician. The relief for total permanent disability will be Rs.25,000/-
- 4) For loss of wages due to temporary partial disability, a fixed monthly relief not exceeding Rs.1000/ per month upto a maximum 3 months.

238. Supra. n.4.

239. Section 7A.

240. Id., Amendment of Section 7. Thus the provision which was only an alternative measure has been made a compulsory one by the amendment.

241. Ibid.

242. Public Liability Insurance (Amendment) Rules, 1992. By notification No.G.S.R. 87 (E) dated February 5, 1992 in Government of India Extra Part II Section 3(ii) dated February 6, 1992 p.2. This Amendment Rules 1992 added after R.9 the Rule 10:
 Extent of Liability - The maximum aggregate liability of the insurer to pay relief under an award to the several claimants arising out of an accident shall not exceed Rs.5 crores and in case of more than one accident, it shall not exceed Rs.15 crores.
 In case the award exceeds the total amount of the amount of insurance, the sum shall be met from Relief Fund and in case it falls short, the amount shall be met by the owner.

Central Government has specified also the quantities for which or exceeding which every owner handling hazardous substances shall have to take insurance policies as per the Act. Everything said and done, this Act is still in clutches for it provides only for immediate interim relief whereas the final liability of the owner will depend on existing regime of tortious liability which requires fault or negligence on the part of the owner to be proved.

National Environmental Tribunal

This Act as it is clearly stated in the objective is a statutory recognition of the strict liability for damages arising out of accidents.²⁴⁴ But the Act restricts itself to hazardous industrial process. Thus the owner of the industry is liable to pay compensation for death or injury to any person other than a workman. There is no need to plead and establish the wrongful act. It is actually a forward step for implementing PIL, 1991 which provides for interim compensation. This Tribunal is to be established at the national level. Members include judicial members, technical members, chairperson-man and Vice-Chairpersons as the Central Government may deem fit. Within this Tribunal may be formed benches consisting of one Judicial Member and one Technical Member. The constitution of the Tribunal shows that it is envisaged to be a body of eminent jurists and technical personalities. This act takes away the jurisdiction of courts to deal with claim for compen-

244. Objectives and reasons in National Environmental Tribunals Act, 1995 (Bare Act).

sation in industrial accidents. Supreme Court is given
²⁴⁵
 appellate authority. Schedule contains the list of heads
 under which compensation can be claimed which includes death,
 injury, loss of wages, damages to private property to name
 a few.²⁴⁶

The evaluation of these legislative attempts and
 delegated legislation to protect the environment shows
 that the need for a comprehensive legislation to control
 pollution is yet remaining. Though EP Act was hailed as
 an umbrella legislation it is at best a paper tiger meant
 to assuage the feeling of environmentalists.²⁴⁷

Many of the provisions are neither properly defined²⁴⁸
 nor clearly drafted to deal with the essential problems related

245. Id., Section 24.

246. Schedule under Section 3 (1).

247. K.Jayakumar, "Environment Protection Act: A Critical
 Overview", [1987] C.U.L.R. 33 at p.38.

248. Id., p.35. Section 26 defining 'environment pollutant'
 is inadequate. The inadequacy is realized even by the
 draftsman as seen from section 6 (2) (b) where the words
 'including noise' is introduced to qualify the term
 "environmental Pollutants". The limitation of the
 definition to the three states of matter which causes
 pollution is another aspect; the fourth state, viz.,
 "plasma" used in advanced scientific and technological
 experiments and which is at the threshold of industrial
 use is left out. This may present problem of regulation
 in view of the present definition".

to water pollution. Among these regulation of groundwater need special mention.²⁴⁹ In India we still do not have a comprehensive legislation to regulate pollution of ground water and defect through has been pinpointed in the academic circle ²⁵⁰ and is yet to be rectified.

249. Alice Jacob, "Development of Ground Waters: Need For Legal Regulation", 32 J.I.L.I. (1990) 540 at p.542.

250. Id., p.543. It is time that the State enact legislation for the development of ground waters taking into account physical and hydro-geological consideration.

CHAPTER V

GENERAL STATUTES BEARING ON ENVIRONMENT

Industrial pollution is controlled to certain extent even before the enactment of these environmental statutes dealt with in the earlier chapter. Tiwari Committee¹ constituted to review the environmental legislation and extent of control existing over environmental degradation, identified that there were in existence for long, two hundred odd laws dealing with environmental matters some of which of course were concerned with pollution control. Environmental policy, then, was not a harmonious coordination of environment and development.² Environmental matters limited themselves to functions like protection of public health and restriction of resource utilization in the economic perspective. Their significance rests on the fact that indirectly they also reduce the consequences from pollution considerably and if amended in an environmental perspective can better serve all round environmental protection programmes including control of industrial pollution which affects the health of not only workers and their family but also members of the general public in the neighbourhood.

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1. Tiwari Committee Report (1980), supra Chapter 4 f.n.35 at p.19.
 2. Chatrapati Singh, "Legal Policy For Environmental Protection", [1984] C.U.L.R. p.8. Thus it was that if these laws protect or conserve, they get in the way of production and development, and where their aims are industrial or demographic development, they grossly overlook the conservation and protection objectives.

In a country like India where 'dharma' was the rule of the law and life, ancient society gave much value to the protection of the environment.³ This state of affairs continued to exist for a long time till the time when industrialisation had set in upsetting the balance. There were only general provisions dealing with the offence of pollution in the penal laws.⁴ The duties of industrialisation had its counterchecks in the form of certain laws specifically regulating each industrial activity and in their train in the form of certain provisions therein protecting the environment from the ill-effects of such activities.⁵

Local legislation, working at the grass-roots with the task of protecting public health also control industrial activities by licensing and restricting irresponsible utilisation of drains for carrying hazardous and other industrial waste. Laws for protecting the natural resources serve as a check on the industrial activities causing pollution.

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3. C.M.Jariwala, "Changing Dimensions of Indian Environmental Law", in P.Laelakrishnan et.al., (Eds), Law and Environment (1992) p.1. Ancient literature contains full evidence on this matter. It was the dharma of everyone to protect the nature. People worshipped nature as well as objects of nature. And for causing injury to nature, punishments were prescribed. Natural resources like rivers enjoyed great significance and were considered as Goddesses with purifying capacity. Foul- ing of water of a river was considered a sin and attracted punishment.
 4. Indian Penal Code, 1860 and Code of Criminal Procedure, 1973 deal with pollution as an offence under different sections and is an important tool used by those aggrieved by industrial pollution resulting in nuisance.
 5. For eg.Boilers Act of 1923; Explosives Act of 1884; Explosive Substances Act of 1908; Petroleum Act of 1934; Workman's com- pensation Act of 1923; Poisons Act of 1919 etc.

Thus the legal measures having bearing on the control of pollution caused by industries can be classified into four categories:

- 1) General laws that provide for the control of pollution as part of the criminal justice administration.⁶
- 2) Specific industrial laws that inter alia control pollution.⁷
- 3) Planning laws that control pollution in order to protect public health,⁸ and
- 4) Planning programmes and laws aimed at protecting natural resources from the industrial and municipal misuse.⁹

General laws

1. Indian Penal Code

The provisions under the Indian Penal Code dealing with offences affecting the public health and safety, public nuisance or mischief are those earliest measures having considerable significance for the control of industrial hazards.

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6. For example Indian Penal Code of 1860 and Code of Criminal Procedure of 1973.
 7. For example Factories Act of 1948, Industries (Development and Regulation) Act of 1951.
 8. Municipal and Panchayat Acts.
 9. Ganga Action Plan of 1985.

Thus, it makes a specific provision for punishing an offender who voluntarily fouls the water of any public spring making it less fit for which it is ordinarily used.¹⁰ The intentional act of fouling is the essence of this section applying only to a public spring or reservoir. The application of this provision depends on the nature of the environment affected by the act.¹¹

The pollution of waters other than springs and reservoirs is considered separately as a public nuisance¹² They are acts affecting seriously the health, safety, comfort or convenience

10. Indian Penal Code Section 277 States: "Whoever voluntarily corrupts or fouls the water of any public spring or reservoir, so as to render it less fit for the purpose for which it is ordinarily used, shall be punished with imprisonment of either description for a term which may extend to three months, or with fine which may extend to five hundred rupees or with both".

11. The question raised is whether the term 'public spring' includes a river or a canal. In Queen v. Vittichakkam, I.L.R.4. Mad. 229 the conclusion arrived at is that the public spring contemplated under section 277 of the Indian Penal Code did not include continuous stream of water running along the bed of a river. Following the same line Bombay High Court reiterated the same view in Emperor v. Nanaram (1904) 6 Bom.L.R. 52. Thus the application is restricted and this may be because rivers or canals were then thought to have the self-purifying-capacity since the foul is to be carried far away by the following currents.

12. The Indian Penal Code of 1860, Section 299.

of the public and do not include a private nuisance.¹³ A similar provision having significance to a certain extent in charging a polluting industry is the provision dealing with mischief. It applies both to damages to the public as well as to any person¹⁴ and if a person intentionally fouls waters of a well or lake or river, causing health hazards to those living in the vicinity, can be prosecuted for the same.

Code of Criminal Procedure

Code of Criminal Procedure of 1973 credits itself by the fact that it has a provision used extensively by the persons affected by industrial pollution since long and for the longest period of time with great implications.¹⁵ It was a relief in the

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13. The Indian Penal Code, Section 268 of 1860 defines public nuisance". A person is guilty of a public nuisance who does any act or is guilty of an illegal omission which causes any common injury, danger or annoyance to the public or to the people in general who dwell or occupy property in the vicinity, or which must necessarily cause injury, obstruction, danger or annoyance to the persons who may have occasions to use any public right..."
 14. Section 425 of the Indian Penal Code states: "Whoever, with intent to cause, or knowing that he is likely to cause, wrongfull loss or damage to the public or to any person, causes the destruction of any property, or to any such change in any property or in the situation thereof as destroys or diminishes its value or utility or affects it injuriously commits mischief".
 15. Section 133 of the Criminal Procedure Code provides a speedy, summary remedy against public nuisance and the provision is used for the control of industrial pollution when the public complain of nuisance is caused by the industry or operation.

real sense for, indiscriminate use of drains, rivers, etc. by the industries when affected the public with no legislation to control it as an environmental pollution, public could invoke this provision and courts did not lag behind in elevating this power, vested in the Magistrate for removal of public nuisance, to a credible remedy for industrial pollution.¹⁶ The significance of this section is not at all affected even in the wake of specific legislation for the control of pollution.¹⁷ It will not be an exaggeration if we recall that Supreme Court decision in the 80's Ratlam's case¹⁸ brought under Section 133 of the Criminal Procedure Code widened the scope of these provisions to such an extent that further development in environmental jurisprudence took place on this firm and strong basis.¹⁹

16. Infra, Chapter 6 on 'Common Law Remedies' deal in detail how the judiciary could ascertain control of pollution caused by industries using this provision.

17. It was a controversial issue which High Courts of different states disposed off differently. The conclusion arrived at, is that no specific legislation can reduce the significance of this provision.

18. Municipal Council, Ratlam v. Vardhichand, A.I.R. 1980 S.C. 1622.

19. Supra. n.16.

Civil Procedure Code

A civil suit for permanent injunction restraining the polluter from causing public nuisance is yet another remedy in which the common law remedy is given a statutory recognition.²⁰ Code of Civil Procedure ensures the right of action in case of public nuisance.²¹ High Court of Andhra Pradesh upheld the coexistence of this provision side by side with the specific legislation for environmental protection in order to Control industrial pollution.²²

Similarly the Easement Act, restricts certain rights such as exclusive rights to enjoy and right to advantages arising from situation to enjoy without disturbance the natural advantages

20. Code of Civil Procedure, 1908.

21. Id., Section 91 reads:

"Public nuisance and other wrongful acts affecting the public-1) In the case of public nuisance or other wrongful act affecting, or likely to affect, the public, a suit for a declaration and injunction or for such other relief as may be appropriate in the circumstances of the case may be instituted -

- a) by the Advocate General or
- b) with the leave of the court, by two or more persons, eventhough no special damage has been caused to such persons by a reason of such public nuisance or other wrongful act".

22. M/s Sreenivasa Distilleries v. S.R.Thyagarajan and others, A.I.R. 1986 A.P.328.

arising from its situation.²³ At the common law every riparian owner is entitled to the continued flow of waters of a natural stream in its natural condition without any obstruction or pollution.²⁴

Thus these provisions under the general laws gave statutory implementation to common law remedies. Though, except Section 133 of the Code of Criminal Procedures all other provisions are used very rarely, they are considered the tools for controlling pollution.²⁵

II Specific Industrial Laws Bearing in Control of Pollution

Those specific industrial laws enacted with different purposes contain provisions that incidentally control pollution

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23. The Indian Easement Act, 1882 (Act V of 1882), Section 7(a) and 7(b). This right includes the right of every owner of land that within his limits, the water which naturally passes or percolates by, over or through his land shall not, before so passing be percolated, be polluted by other persons. (Illustration (f)) and right of every owner that water passing through natural stream shall be allowed by other persons to flow within such owner's limits, without interruption, alteration etc in quantity, direction, force or temperature (Illustration (h)).
24. Salmond, The Law of Torts (1981) p.230.
25. One such case is Babulal v. Ganshyamdas Birla, decided by the M.P.High Court on 19 May, 1976. It was a case brought under Section 268, 269, 277, 288 and 290 of the Indian Penal Code.

caused by industries. Though there are a number of laws for controlling individual industrial processes²⁶ or even control pollution at the regional level,²⁷ the idea here is to concentrate only those national laws having significance in compromising the national industrial policy with environmental policy.

Factories Legislation

Industrialisation got momentum after independence as the planners considered it to be the right step in the right direction.²⁸ Industrial policy introduced as early as in 1948,²⁹ therefore, put forward measures for achieving the same which included the welfare of the industrial workers. Factories Act, 1948 in essence is contemplated as a social welfare legislation³⁰

26. Supra. n.6.

27. For example Bengal Smoke Act, 1905, Bombay Smoke Act, 1912, Water Prevention and Control of Pollution Act, Maharashtra, and Water Prevention and Control of Pollution Act, Orissa etc.

28. See for details supra. Chapter 3.

29. Industrial Policy Resolution 1948 as given in NABHI'S New Industrial Policy and Procedures (1995), pp.30-34.

30. Objectives and reasons held that the main object of 1948 Act is to ensure adequate safety measures and to promote the health and welfare of workers.

dealing in detail with provisions such as health, safety and welfare of the workers to be achieved through cleanliness in the premises and safe working conditions.³¹ This Act contains certain general provisions relating to protection of health.³² A significant provision from the environmental angle is the one relating to disposal of wastes and effluents. Thus the idea of environment protection crept into the management realms, because they had to dispose off wastes and effluents.³³ Punishment is provided for violation of the provision.³⁴

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31. Factories Act 1948, Section 7A inserted by amendments in 1987, (Act 20 of 1987). It prescribes the general duties of the occupier of a factory to ensure the health, safety and welfare of the workers at work in the factory.
32. Id., Sections 11-20.
33. Id., Section 12 (1): Effective arrangements shall be made in every factory for the disposal of wastes and effluents due to the manufacturing process carried therein. Amendment of the Act in 1976 introduced the requirement that the effluent and wastes should be treated before disposal of the same. Earlier the provision contained aimed at only the disposal of the waste and effluents.
34. Id., Section 92 provides for punishment of violation which is imprisonment for a term extending to three months or fine extending to five hundred rupees or both.

Precaution against dangerous fumes is another preventive measure for controlling pollution by industries.³⁵ These provisions are further implemented specifically through the rules framed by the State Government.³⁶ Thus the Act authorises the State Government to make rules for the approval, licensing and registration of factories instead of directly laying down the norms for such approval, licensing and registration.³⁷ These rules entrust authorities such as Local authority, Effluent Board, Director of Fisheries and Health Officer the power to approve the arrangements for the disposal of effluents and waste.³⁸

35. Id., Section 36.

36. Id., Section 12(2) provides that the State Government may make rules prescribing the arrangements to be made under sub-section(1) or requiring that the arrangements made in accordance shall be approved by such authority as may be prescribed. By virtue of this delegated power State Governments have made rules thereunder such as U.P.Factory Rules, 1950; Tamil Nadu Factory Rules, 1950; West Bengal Factories Rules, 1958; Maharashtra Rules, 1963; Mysore Rules, 1969; Kerala Rules, 1957 etc.

37. Id., Section 6(1). But section 6(2) circumscribes the purpose of such approval by laying down that, if no order is communicated to the applicant within three months, the permission applied for will be deemed to have been given.

38. Thus approval shall be obtained from the Local Authority in case the drainage system is to be connected to public sewerage system, but when there is no public sewerage system to be thus connected the approving authority is the Health Officer or Public Health Authority (For example: Rule 22 of Maharashtra Factories Rules, Rule 18 and 52 of the Mysore Factories Rules). U.P.Factories Rules provide for the approval of the Effluent Board constituted by the State Government (Rule 18) while Tamil Nadu Rules provide that approval shall be obtained from the Director of Fisheries or such authority as the State Government may appoint in this behalf (Rule 17(3)).

Judicial interpretation has elevated this step for effective arrangements to a mandatory one and a factory can be prosecuted for an offence under Section 92 read with Section 12 of the Act and Rules framed thereunder.³⁹ Thus, there are only a few provisions under the Factories Act having relevance to some extent for the control of pollution in the environmental perspective.

Bhopal tragedy led to the amendments of Factories Legislation along with the environmental statutes by inserting provisions imposing certain specific responsibilities on the occupier of factories engaged in hazardous processes.⁴⁰ The Act by defining hazardous processes⁴¹ acknowledged that pollution of general environment or material impairment to the health of the workers may be caused by unscrupulous industrial processes. Thus it is not the effluents and wastes alone that will have adverse impact on the worker's health, but special

39. For example, High Court of Allahabad in the case of Nagendra Lal v. State of U.P., 1981 (43) Factories and Labour Reporter, 144 overruled its own single bench decision and held that a factory can be prosecuted for an offence under section 92 read with section 12 of the Act and the Rules even if the plans for the arrangement of effective disposal of wastes and effluents have neither been approved nor disapproved by the Effluent Board. p.147.

40. Supra. n.32. Chapter IV A inserted by Act 20 of 1987.

41. Id., Section 2(6) "hazardous process" means any process or activity in relation to an industry specified in the First Schedule where, unless special care is taken, raw materials used therein or the intermediate or finished products, byproducts, wastes or effluents thereof would -
 i) cause material impairment to the health of the persons engaged in or connected therewith, or
 ii) result in the pollution of the general environment.

care is required with regard to the raw materials used, intermediate or finished products and byproducts to avoid such consequences. This definition has thus added an environmental dimension to this otherwise social enactment to protect the workers engaged in industrial activities. Workers' right to information about health and safety at work as well as the right to complain about the inadequacies of health and safety measures is protected along with a duty cast on the workers not to misuse or neglect the safety devices.⁴²

With a view to achieve the new objective the steps taken include:

- 1) constitution of a Site Appraisal Committee⁴³ to examine applications for the establishment of a factory involving hazardous processes and make its recommendations to the State Government within ninety days.⁴⁴

42. Id., Section 111 A(i) and (ii) - rights and Section 111 the duty.

43. Id., Section 41 A(1). It is an expert body with Chief Inspector as its Chairman. Other members include representatives of - The Pollution Control Board, both Central and State; Meteorological Department, Town Planning Department of the State and Expert in the field of occupational health. In addition, there are five other members co-opted by the State Government such as scientist with knowledge of hazardous processes involved in the factory representative of local authority and three others deemed fit by the State Government.

44. Id., Section 41 A(2).

- 2) compulsory disclosure of information by the occupier⁴⁵
- 3) specific responsibility of occupier in relation to hazardous processes.⁴⁶
- 4) power of Central Government to appoint Inquiry Committee⁴⁷
- 5) permissible limits of exposure of chemical and toxic substances.⁴⁸
- 6) workers participation in safety management⁴⁹ and
- 7) right of workers to warn about immediate danger.⁵⁰

If an evaluation of these provisions is made in the environmental perspective, there is no doubt that something progressive is envisaged for the health and safety of the workers involved in

45. Id., Section 41 B.

46. Id., Section 41 C - It includes maintaining a health record or medical record of workers exposed to any chemical, toxic or harmful substances and appointment of an officer to provide facilities for protecting workers.

47. Id., Section 41 D - The inquiry Committee consists of Chairman and two other members to enquire to the standards of health and safety.

48. Id., Section 41 F.

49. Id., Section 41 G.

50. Id., Section 41 H.

hazardous industrial processes. But the protection of the general environment from industrial hazards is yet to be achieved. Even then there are attempts made positively such as constitution of a site appraisal committee for the location of an industry. But, the Amendment Act did not lay down any criteria for the location of such industries. The appraisal committee is only an advisory body to make recommendations leaving the decision making power to the State Government. The constitution of the committee shows that it is a forum of executives representing the Government leaving aside the participation of the general public. Moreover, on the State Government's approval to an application for the establishment of a factory involving hazardous processes, no further approval from the Pollution Control Board under Water Act or Air Act is necessary.⁵¹ This in effect can avoid the control of the Pollution Control Board over industrial establishments and thus reduce the significance of environmental statutes considerably bringing industrialisation to the interest of the Government in power without the checks and counterchecks by environmental agencies such as the Pollution Control Board.

Nevertheless, those measures for leading to the protection and safety of workers also ensure prevention of environmental hazards endangering the environment as a whole.⁵²

51. Id., Section 41 A (4).

52. Id., Sections 41 B - 41 H.

Further, the 1987 Amendments have inserted a new section empowering the Inspector to prohibit employment⁵³ on account of serious hazard, in addition to the penalty for contravention of those mandatory provisions.⁵⁴ The schedules annexed contains the list of industries involving hazardous processes,⁵⁵ the permissible level of chemical substances in work environment⁵⁶ and the list of notified diseases.⁵⁷

Factories Rules framed at the State level carried these general provisions into action and contains several specific provisions that can be used significantly for the control of pollution.⁵⁸

53. Id., Section 87 A.

54. Id., Section 96 A - Penalty for contravention of Ss.41B, 41C and 41H. It is punishable with imprisonment extending to seven years and fine upto two lakhs and for continuous contravention, additional fine extending to 5000/ per day for the first such failure (96A(1)). If the failure continues beyond one year after the date of conviction, imprisonment upto ten years. It also amended Section 92 to increase the penalty.

55. Id., Schedule I under section 2 (b)-List of industries involving hazardous processes-29 items.

56. Id., Schedule II under Section 41F.

57. Id., Schedule III gives a list of notified diseases(29 in number)

58. To mention for example Kerala Factories Rules, 1957 deals with approval of sites (Rule 3), disposal of waste and effluents (Rule 17), constitution of safety committee (Rule 81). The schedules annexed classifies the factors and provisions for protecting the workers from dangers as well as hazards affecting their health(Schedule XXVII inserted by G.O.(MS)No.6/87/LBR dated 22nd January,1987). See for details Kerala Factories Rules, 1957 (Notification in the Kerala Gazette No.52 dated 24th December, 1957).

Industries Development and Regulations

So far as the control of industries is concerned, Industries (Development and Regulations) Act, 1951 (IDRA, 1951) is the first and most significant legislation.⁵⁹ The control provisions then did not aim basically at control of pollution, but, there are areas that would well accommodate such measures without much difficulty.

It is considered to be in the public interest that the Central Government shall take within its control the industrial activities specified.⁶⁰ This control is primarily achieved through ways such as constituting a Central Advisory Council for the purpose of advising the Central Government on matters of development and regulation of Scheduled industries.⁶¹ The Central Government, in addition, may establish for any

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59. Act No.65 of 1951. The objective of the Act is to implement the Industrial Policy of 1948. The planning of future development on sound and balanced lines is sought to be served by the licensing of all new undertakings by the Central Government (Statement of object and reasons IDRA 1951).
60. Id., Section 2. The First Schedule contains a long list of 38 categories of industries engaged in the manufacture and production of any of the articles mentioned under each.
61. Id., Section 5. The council consists of a chairman and members not exceeding thirty, all appointed by the Central Government representing interests such as owners of industrial undertakings in scheduled industries, persons employed in such industries, consumers of goods manufactured in such industries, such other classes including primary producers. The Central Government is to consult this Advisory Council.

Scheduled industry, a Development council which is a body corporate to perform functions specified.⁶² The Development council is to submit a report to the Central Government for the completed financial years.⁶³

Provisions that are of environmental significance are the registration of existing industries⁶⁴ and licensing of new industrial undertakings.⁶⁵ This licensing extends to production and manufacture of new articles⁶⁶ and in special cases, the functioning of an industry can be prohibited unless it gets proper registration or license wherever necessary or the change of location.⁶⁷ The contravention of these provisions can be dealt with by fine as well as imprisonment.⁶⁸ A factory managed in a manner detrimental to public interest may be taken over after notification, sometimes even without investigation.⁶⁹ It can also exempt industries from the

62. Id., Section 6. The Development Council consists of members representing the owners of industrial undertakings, technically qualified persons, representing the workers, and representing the consumers. The council is to perform functions specified under Schedule II. These functions include among other things suggesting norms of efficiency with a view to eliminate waste and obtaining maximum production, improving quality and reducing costs.

63. Id., Section 7.

64. Id., Section 10.

65. Id., Section 11.

66. Id., Section 11 A (inserted by 1993 amendments)

67. Id., Section 11 B (inserted by IDRA(Amendment) Act, 1984, Act 4 of 1984).

68. Id., Section 24.

69. Id., Section 18 A.

operation of any of the provisions under this Act.⁷⁰ It is under this exemption clause that environmental protection got introduced for the first time under this Act making location of an industry an important clause for getting this exemption thus discouraging industrial undertakings in sensitive localities.⁷¹

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70. Id., Section 29 B. It provides - If the Central Government is of opinion that it would not be in public interest to apply all or any of the provisions of this Act thereto, it may by notification in the Gazette, exempt, subject to conditions, any industrial undertaking from the operation of all or any of the provisions of this act.
71. Id., The Government has delicensed 28 industries including 82 bulk drugs as specified in this Ministry's Notification No. S.O.291(E) dated 18th March, 1985; No.S.O.483(E) dated 8th August, 1986 and No.S.O.834(E) dated 11th November, 1986 for non-MRTP/non-FERA companies subject, inter alia to the condition that the location of the undertakings should not fall within the standard urban area limits as determined in the Census of India, 1981 of a city having a population of more than one million or within the municipal limits of a city with a population of more than five lakhs. Another 71 industries were delicensed for MRTP/FERA companies for locations in backward areas vide Government Notification No.140(E) dated 31st March, 1986 as subsequently amended vide Notification No.1127(E) dated 29th December, 1987 subject inter alia to the condition that the industrial undertaking is not within a radius of 100 kms of a city having a population of 25 lakhs according to the 1981 Census.

Consequent upon the issue of New Locational Policy as contained in Government No.629(E) dated 30th June, 1988, it has now been decided that henceforth, the delicensing facilities as extended to non-MRTP/FERA vide Notifications referred to in para 1 above, will not be available, if the industrial undertaking is located

- (a) 50 kms from the boundary of the standard urban area limits of any city having a population of more than 25 lakhs according to the 1981 Census; or
- (b) 30 kms from the boundary of the standard urban limits of any city having a population of more than 15 lakhs but less than 25 lakhs according to 1981 Census; or
- (c) 15 kms from the boundary of the standard area limits of any city having a population of more than 7.5 lakhs but less than 15 lakhs according to the 1981 Census; or
- (d) The standard urban area of the municipal limits of other cities and towns.

For details also see supra. Chapter 3

New Industrial Policy has amended this provision⁷² exempting from license considerably making licensing compulsory for those industries coming under the first and second schedule.⁷³ This exemption from licensing is however, subject to certain locational restrictions.⁷⁴ It is only the environmental safety, land use, urban planning and related factors that are kept in view while considering the industrial license application.⁷⁵

This Act is further implemented through the rules of 1952.⁷⁶ Thus an application for registration shall be made to the Ministry of Industry (Department of Industrial Development).⁷⁷

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72. Notification No.S.O.477(E) dated July 25, 1991 under Section 29 (B) IDRA, 1951 is published in supersession of a number of notifications of the Government of India. For details see supra. Chapter 3, f.n. 39.
73. Ibid. According to this, the exemption will be available for only the Small Scale and ancilliary undertakings covered in Schedule III as well as those covered by S.O.232(E) but not included in Schedule I or II. The Schedule contains the list of industries reserved for the public sector while Schedule II the list of industries requiring compulsory licensing. It contains a list of 18 categories.
74. Ibid. Press Note No.9(1991 Series) dated 2nd August 1991 contains a list of 23 cities with population of 10 lakhs and above details also see 1991 C.C.L. Part III pp.340-347.
75. "Guidelines For Industrial License Applications Received For The Industries Falling Outside Compulsory Licensing, But involving Locational Angle". (Press Note No.17 of 1992, dated 2nd November, (1992) 3 Comp.L.J. p.110.
76. Registration and Licensing of Industrial Undertakings Rules, 1952 (vide S.R.O. 1141 dated 9.7.1952) in Nabhi's New Industrial Policy and Procedures (1995) p.243.
77. Id., Rule 3.

Such an application for license or permission for new industry shall be made before initiating any work⁷⁸ and the application is considered by a committee which includes representatives of different Ministries of the Central Government including Ministry of Environment and Forest.⁷⁹ Again the owner of an industry shall send a half yearly return from the grant of license till such time as the industrial undertaking commences production⁸⁰ to the Ministry of Industrial Development or any authority appointed for the same.

Measures for the protection of the environment are brought into effect through those press notes released by the Ministry of Industry declaring a list of twenty highly polluting industries specifying that they should have a clearance from the environmental angle.⁸¹ Thus, it is provided that con-

78. Id., Rule 7.

79. Id., Rule 10(1) & (2). Rule 10(2) has been substituted by S.O.58(E) dated 21.4.1993. This amended Rule provides that the Committee shall consist of members representing the Ministries of the Central Government dealing with .

- i) the industry specified in the first schedule to the Act;
- ii) Finance;
- iii) Science and Technology;
- iv) Environment, Forest and Wildlife;
- v) Small Scale Industries.

In addition, the Central Government or the Committee may include in such Committee any other member to represent any other Ministry.

80. Id., Rule 19. The report is to be sent every half year ending 30th June and 31st December in Form 'G' which contains in it the declaration of steps as to whether approval for the pollution control steps has been received from the appropriate authority.

81. (1984) 2 Comp.L.J. p.246. Press release issued on 23rd June 1984 for Environmental Clearance of Industrial Licenses (News and Views).

version of Letter of Intent into industrial licence⁸² or conversion of provisional registration into regular registration⁸³ will take place, only if, apart from other prescribed conditions, environmental conditions as required are fully satisfied,⁸⁴ Conditions are imposed to check pollution along

82. "Environmental Clearance of Industrial Licence - conditions of Letter of Intent/industries Licence" Press Note No.17 dated 7.12.1984, 1 Comp.L.J. p.14.

83. Environmental Clearance for highly polluting industrial projects, Press Note No.3/13/83 dated 30th April 1985 in (1985) 3 Comp.L.J. p.14.

In order to check and prevent air water and soil pollution arising out of industrial projects it is incorporated that in respect of certain industries of a highly polluting nature, it would not only be necessary to instal suitable pollution control equipments, but also to identify the site and location of the project where a particular unit would be set up. The industries listed are:

- 1) primary metallurgical producing industries viz zinc, copper, lead, aluminium and steel;
- (2) paper, pulp and newsprint;
- (3) pesticides, insecticides;
- (4) refineries;
- (5) fertilizers;
- (6) paints;
- (7) dyes;
- (8) leather tanning;
- (9) rayons;
- (10) sodium/potassium cyanide;
- (11) basic drugs;
- (12) foundry;
- (13) storage batteries(lead acid type ;
- (14) acids/alkalies;
- (15) plastics;
- (16) rubber-synthetic;
- (17) cement;
- (18) asbestos;
- (19) fermentation industry;
- (20) electroplating industry.

84. Supra. nn.81, 82.

The conditions to be fulfilled are:

- 1) The State Director of Industries confirms that the site of project has been approved from the environmental angle by the competent State Authority.
- 2) The entrepreneur commits both to the State Government and the Central Government that he will install the appropriate equipments and implement the prescribed measures for the prevention and control of pollution.
- 3) The concerned State Pollution Control Board has certified that the proposal meets with the environmental requirements and that the equipments installed or proposed to be installed are adequate and appropriate to the requirements.

with a checklist to ensure compliance.⁸⁵ Again in order to make these measures more practicable, the validity period of letter of intent/industrial license have been extended from one year to three years.⁸⁶ It is further made clear that the No Objection Certificate from the Pollution Control Board as per condition 3 of the Environmental Clearance Notification is a requirement to be fulfilled before the issue of license and instructed industries to get the consent from the board before considering the application for such conversion.⁸⁷

Other ancilliary measures having significance so far as licensing industrial activities from the environmental angle include: 1) Scheme to develop low-cost non-waste technology and control of pollution.⁸⁸
 2) Packages of Delicensing of Industries and Incentives⁸⁹
 3) Incentives for setting up industries in 'No Industry Districts' Backward Areas.⁹⁰

85. (1984) 3 Comp.L.J. p.99.

86. (1987) 3 Comp.L.J. p.59.

87. (1989) 1 Comp.L.J. p.15.

88. (1991) 3 Comp.L.J. p.31. The scheme is to promote the adoption of technologies and best practicable techniques for environmental benefit among industrial units. This was announced by the then Minister for Environment and Forest, Kamal Nath, while addressing on "Technology Co-operation for Sustainable Development" organised by Confederation of Engineering Industry on 19th July, 1991. The thrust is on waste minimisation for pollution control is nothing but waste management.

89. See supra. Chapter 3, f.n. 40.

90. (1983) 2 Comp.L.J. p.137. As part of correcting regional imbalance and securing industrialisation of backward areas of the country, the Government provided incentives which include concessional finance by All India Lending Institutions, subsidy on fixed capital investments, preferential treatment in the grant of industrial licenses. This policy indirectly regulated industrialisation in cities and towns.

- 4) Identification of protected districts/nonpolluting industry districts and industries⁹¹
- 5) Inclusion of subcolumns under column 7 related to location of industries to get information as to matters relevant under forest
- Forest Conservation Policy restricts the use of forest land for industrial projects. For setting up of factory or its ancilliary units or for procurement of raw materials prior permission of the Central Government in the Department of Agriculture and Cooperation in the Ministry of Agriculture has to be obtained. The Government is also required to ensure that all aspects concerning environmental protection are looked into carefully before approval for setting up of industrial ventures near national parks, sanctuaries or national monuments etc. are accorded permission.⁹² Dispersal of industries is an important national objective to serve simultaneously to avoid concentration in already overcrowded metropolitan areas.⁹³

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91. (1987) 3 Comp.L.J. p.52 (F.No.10/156/85-LP dated 17th February, 1987). With a view to ensure that ecologically fragile regions in the country are protected from the adverse effects of industries which emit harmful effluents, the Department of Environment in the Ministry of Environment and Forests have identified a list of districts as totally protected and also those districts where non-polluting industries could be located. They have also identified a list of industries which could be set up in these districts in various States and Union Territories. List I protected districts and List II non-polluting industry districts List III industries that could be set up in these districts.
92. Forest Conservation Act, 1980
Application form for a license or permission under IDRA - Environment aspects-Amendments Relating to issued by Ministry of Industry vide No.10/8/82-LP dated 16.2.83. (1938) 2 Comp.L.J. p.86. Therefore, application for exemption from licence under section 11, 11A or 13 of IDRA 1951 has been amended by adding subcolumns under column 7 relating to 'Location' of industry.
93. (1987) 1 Comp.L.J. p.48. Industrial Policy during 7th Plan Period (Policy Statement, 10th December, 1986).

After independence, our industrial policy aimed economic stability through industrialisation and meeting the agricultural needs by developing public and private sector industries assisted by small scale sector.⁹⁴ Then came the gradual shift in the policy to disperse industrial growth to rural areas aimed at achieving the national objective of socialist pattern of society as well as removing the rural-urban disparities and unemployment.⁹⁵ For industries have a tendency to cluster around the cities which invariably result in environmental problems caused by overcrowding, pollution, disease and lack of civic amenities. These are problems affecting public health and therefore became significant under the planning regulations as well as local bodies legislation. Thus the scope of planning schemes is extended to protect the environment directly.⁹⁶

94. See for details Industrial Policy Resolution, 1948; Industrial Policy Resolution, 1956 etc.

95. For instance, Prime Minister's Policy Statement on 10th December 1986 states that dispersal of industries is an important national objective. It serves simultaneously to avoid concentration of already overcrowded metropolitan areas and also to spread the benefits of industrialisation more evenly to backward areas. "Industrial Policy During Seventh Plan Period" PM's Policy Statement, 10th December, 1986 in (1987) 1 Comp.L.J. p.48.

96. For example, Town and Country Planning Act, 1945, Travancore Town and Country Planning Rules, 1953, Madras Town Planning Act, 1920 etc. provided for industrial locations in their development schemes taking into consideration the public health protection.

But the Planning Regulations restricted themselves to the location of industrial sites and schemes for regulating and controlling the deposit or disposal of waste materials or refuse.⁹⁷ Local bodies legislation stepped further to restrict industrial activities as part of their administrative mechanism for protecting public health.

Local Bodies Legislation and Control of Industrial Pollution

Local bodies are constituted for the implementation of national policies from the grass roots. Their administration is regulated by legislation at the State level.⁹⁸ As part of this administrative policy, restrictions are laid on the use of places for certain purposes by licensing the same.⁹⁹ A list of

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97. Thus in Town and Country Planning Act, 1945 (28th March, 1945) Schedule under Section 5 details of matters to be dealt with by schemes which included prohibition, regulation and control of the deposit or disposal of waste materials and refuse, sewerage drainage and sewage disposal. In Madras Town Planning Act, 1920 (Act VII of 1920) part II the General Town Planning Scheme provide for the map drawn which contains the industrial site.
98. For example, Kerala Municipalities Act, 1960 (Act 14 of 1961) and Kerala Panchayat Act, 1960 (Act 32 of 1960) supplemented by the Kerala Municipalities (Construction or Establishment of Factories or Installations of Plants and Machinery) Rules, 1966 and Kerala Panchayat (Licensing of Dangerous and Offensive Trades and Factories) Rules, 1963. Amended from time to time, they are now substituted by the new legislation of 1994 after the 73rd and 74th amendment of the Constitution in 1993.
99. These Acts provide that a factory can be established only after getting a license from the local authorities (Section 284 and Section 96 of Kerala Municipalities and Kerala Panchayat Act respectively).

activities having some impact on the environment are thus enumerated as offensive or dangerous to human life or health or property.¹⁰⁰ Similarly, they also restrict the construction or establishment of any factory, workshop or workplace and the installation in any premises any machinery or manufacturing plant by providing that permission should be taken for the same if steam or other power is employed.¹⁰¹ Approval of the Inspector of Factories¹⁰² and consulting and having regard to the health officer¹⁰³ are the requirements to be fulfilled by

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100. Kerala Panchayats (Licensing of Dangerous and Offensive Trade and Factories) Amendment Rules, 1992. (Kerala Gazzete No.34 dated 25.4.1992) Section 284 of the Municipalities Act provides that no place shall be used within the municipal limits for any purpose specified under Schedule III, without a license of the Commissioner and except in accordance with the conditions specified there. Schedule III enumerated the purposes for which premises may not be used without a license. Under the Kerala Panchayat Act, Section 96 contains the similar provision and Schedule I of the Kerala Panchayats (Licensing of Dangerous and Offensive Trades and Factories Rules) 1963 enlists the purposes (126 in number) for which the license is essential.
101. Section 285 and Section 97 of the Municipalities Act Panchayat Acts respectively.
102. Section 285(4)(a) of the Municipalities Act provides that if more than nine workers are proposed to be employed on any day in the factory workshop or workplace approval of the Inspector of Factories shall be obtained. The Kerala Panchayat Rules, 1963 under Rule 12(4)(a) provided for such an approval if the factory workshop or workplace comes within the purview of the Factories Act, 1948. Amendment Rules, 1992 now provide that approval of the Inspector of Factories will not be required if the approval of green channel counters in the District Industries Centre or in the Kerala State Industrial Development Corporation has been obtained.
103. Section 285(4)(b) and Rule 12(4)(b). The Panchayat Rules, 1963 additionally provides that in respect of matters to be specified by the Director by general or specific order shall, also consult the Divisional Fire Officer as regards the precautionary measure to be taken against the outbreak of fire.

the authorities before granting such a permission. Permission can very well be denied on the ground of likelihood of causing nuisance.¹⁰⁴ Giving directions for abatement of nuisance caused by steam or other power is an important function using which the authorities can even prohibit the use of the particular kind of the fuel employed or restrict the noise or vibration by prohibiting the working of a factory, workshop or workplace between the hours of 9.30 p.m. and 5.30 a.m.¹⁰⁵ Power of entry to such premises¹⁰⁶ further strengthens the scope of controlling industrial activities

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104. Nuisance is defined as "any act, commission, place or thing which causes or is likely to cause injury, danger, annoyance, disturbance or offence to the sense of sight, smell or hearing or to rest or sleep or which is or may be dangerous to life or injurious to health or property".
105. Section 286 of Municipalities Act and Rule 13 of Panchayat Rules.
106. Executive authority is empowered to continue its vigilance over the working of the factory and thus control the industrial activities considerably for the sake of protecting public health.
Rule 15 provides that the executive authority or any person authorised by him in this behalf may enter any factory etc.
- a) at any time between sunrise or sunset.
 - b) at any time when any industry is being carried on
 - c) at any time by day or night, if he had reason to believe that any offence is being committed under Rule 12 or Rule 13.

from adversely affecting the public health. Kerala Municipalities (Construction or Establishment of Factories or Installation of Plants and Machinery) Rules, 1966 further expand the scope of Section 285 by bringing within it even factories that do not employ power.¹⁰⁷ At the same time exemptions are provided for the use of power when the purpose is purely domestic.¹⁰⁸

Thus it can be seen that Local Bodies Legislation provide specifically for the regulation of industrial activities which in turn control industrial pollution. Though these provisions are narrow in their scope, there are occasions when aggrieved persons approached the courts for compelling the authorities to perform their duties and apex court vehemently criticised the irresponsible attitude of Municipal authorities.¹⁰⁹

107. Rule 3: Classes of factories which do not employ power but which require permission-Thus any premises whereon it is proposed to employ 20 persons or more on any day without the aid of power shall be deemed to be factories under Section 285(1) of the Act.

108. Rule 4 of Municipalities Rules, 1966 and Rule 16 of Panchayat Rules, 1963.

109. For example in Ratlam's case and Ganga pollution cases, the court pointed out that even though there are provisions to deal with pollution, municipalities are oblivious to this obligation whereby provisions remain just on papers without any adequate action being taken to pursuant thereto. Supreme Court took the chance to criticise the municipal irresponsibility generally and made the ruling against Kanpur Municipality, under Ganga Pollution case applicable mutatis mutandis to all other Mahapalikas and Municipalities which have jurisdiction over the area through which the Ganga flows. Municipal Council, Ratlam v. Vardhichand, A.I.R. 1980 S.C. 1622 and M.C.Mehta v. Union of India, A.I.R. 1988 S.C. 1115.

But High Courts do not seem to be strict in interpreting those provisions and failed to remedy complaints against the liberal attitude of local bodies.¹¹⁰ More distressing fact is that the 1993 amendment of the Kerala Panchayat (Licensing of Dangerous and Offensive trades and Factories) Rules failed to review the provisions in the environmental perspective when it amended Rule 12 (4) (a).¹¹¹ The beacon of light in the right direction came with the Seventy fourth Amendment which for the first time provided for the "protection of environment". But 73rd Amendment 1992 inserting 11th Schedule which enumerates matters to be handled by Panchayats do not contain a similar provision. Environmental protection should be an item not only in the list of Schedule 12 but also in Schedule 11.

In line with this Amendment, the Kerala Municipalities Act, 1994¹¹³ is legislated along with Kerala Panchayat Raj 1994.

110. For details see infra. Chapter 8 pp. 279-281

111. Kerala Gazette No.34 dated 25.4.1992, thus as part of the New Industrial Policy of Government as per G.O.(P) 119 (91) 9/91/D dated 22-10-1001 a Green Channel Scheme has been introduced for expediting clearance for starting new industrial units. Rule 12 (4).

112. 74th Amendment 1993 (20th April 1993) inserted Part IX A The Municipalities and also 12th Schedule (Article 243) which includes:

8. "urban forestry, protection of the environment and promotion of ecological aspects".

113. Act of 1994.

But the new provisions added seem to be leaning more towards liberal industrial policy.¹¹⁴ The newly added Schedule VII gives a list of activities that require a clearance under Section 448 (4)(b)¹¹⁵ from the District Health

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114. Act 13 of 1994. The objective and reasons clearly indicates that it is in accordance with the 73rd Amendment which aims at ensuring public participation in planning and local administration. But Kerala Panchayat Raj Act, 1994 has just reported the provisions under the 1960 Act with regard to licensing the establishment and installation of factories. Under this Act sections 232-234 reiterates Section 96-98 of 1960 Act except that the expiry period for the notification is now 30 days instead of 60.
115. Thus under Section 448 (4) (b) is added that if the factory is located in an Industrial estate, Mini estate, Industrial Development Area, Development plot provided by Industries Department or Small Scale Industries Corporation no such consultation with Health Officer is needed if the factory one listed under Schedule VII. Moreover if such factory declare that there will be no effluents and the General Manager of the District Industrial Centre recommend the same, no consultation is necessary.

Officer.¹¹⁶ If any solid liquid or gaseous effluents cause pollution, that has to be referred to the Health Department.¹¹⁷

Ganga Action Plan and Industrial Pollution

Industrialisation, urbanisation and modernisation of agriculture are the factors that pollute the otherwise pure water of Ganga. The role of industries in polluting the sacred

116. Schedule VII. List of activities that require a clearance under section 448 (4) (b).

Schedule I List of duties

It includes public health, social forestry and environmental protection, Small Scale Industries and awareness of environmental matters.

Schedule VI - The list of activities that cannot be started without a license.

Schedule VII- Those activities that require a clearance under Section 448(4)(b).

1. (a) Battery making; (b) manufacture of cycle parts including tyres and tubes; (c) manufacture of industrial and scientific instruments, hand tools and machine tools which includes electroplating with chromium, cutting oil and heat treatment; (d) manufacture of bulbs, tubelights, mercury bulbs, reflectors, metallic shades etc., (e) pickling of iron and steel; (f) manufacture of electrical and electronic parts which involves acid treatment, electroplating, solvent treatment etc., (g) manufacture of telephone, telegram, teleprinter which involves electroplating and heat treatment; (h) manufacture of time piece, watch, self luminating direct.

- (2) Chemicals and fertilizers
- (3) Dyes,
- (4) Food processing
- (5) Canning
- (6) Manufacture of mineral oils such as engine oil, cutting oil and transformer oil
- (7) Paints and varnish
- (8) Manufacture of paper including colour paper
- (9) Medicine
- (10) Internal combustion engine, diesel engine, radiator
- (11) Textile printing, dyeing, mercurising, bleaching etc.

If any solid, liquid or gaseous effluents cause pollution, that has to be referred to the Health Department.

Schedule VII - Those that require clearance from Fire Officers.

Schedule X - Dangerous diseases.

river Ganga is a fact already established beyond any doubt.¹¹⁸ Seventh Five Year Plan undertook the cleaning of the Ganga as a task to be achieved though with much effort.¹¹⁹ It is an interdisciplinary and interministerial programme.¹²⁰ Thus in February 1985, the ten member Central Ganga Authority was set up with the Prime Minister as the Chairman.¹²¹ This Authority utilised foreign aid as well to execute the cleaning process.¹²²

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118. Brojendra Nath Banerjee, Can The Ganga Be Cleaned (1989) p.32, p.91. Ganga collected surface runoff, municipal and industrial wastes such as toxic and harmful substances in effluents from textiles, chemical industries, tanneries etc. Central Water Pollution Control Board after conducting an extensive monitoring of the river water revealed that the river receives polluted water of domestic sewage and industrial effluents of exactly one hundred towns including 29 Class I cities on its banks. A survey by the Central Pollution Control Board in 1981 identified 120 industries in West Bengal, 102 in U.P. and 85 in Bihar relevant in terms of pollution.
119. Seventh Five Year Plan, para 18.34. The idea of Action Plan for cleaning Ganga is the brainchild of the Prime Minister, Mrs. Indira Gandhi and the five year programme for the same, on the basis of the information collected for quite a long time by the Central Pollution Control Board with the support of seven State Pollution Control Boards.
120. Ibid. It involved the participation of DEON, DNES, Ministry of Works and Housing and Ministry of Agriculture.
121. Ibid. According to the Seventh Plan Rs.240 crores is left for Ganga Action Plan (para 18.69) Ganga Project Directorate was set up as a wing of the Department of Environment.
122. Supra. n. p.57. Thus Netherlands under the Indo-Dutch cooperation programme is to provide technical and financial assistance of Rs.38.4 crores for providing tannery effluent treatment facilities, Thames Water Authority provides knowhow as water quality modelling, Thames Water International provides corporate advisory services to people in operational maintenance, World Bank assistance amounting to Rs.46.25 crores to U.P. Urban Development Project which also covers Ganga Action Plan etc. are some of them.

The Action Plan has great significance in the control of industrial pollution because it concentrated mainly on the control of pollutant flowing into the Ganga.¹²³ Workshops held as part of this plan also concentrated on issues such as recycling of waste, bio-monitoring, treatment technologies and river front conservation.¹²⁴

Industrial effluents flowing into the Ganga are many as the industries located on the banks of Ganga from Gangotri

123. The objectives of the Action Plan in the first phase were the immediate reduction of the pollution load and the establishment of self sustaining treatment plant system. But, it is also interesting to note that initially the Action Plan did not cover the treatment of industrial waste. It was the first meeting of the Central Ganga Authority (p.154) that took note of the seriousness of industrial pollution at specific locations. The main sources of pollution of the Ganga are urban and industrial liquid wastes. For instance the survey conducted by the Pollution Control Boards of U.P., Bihar and West Bengal on request by the inter-departmental Steering Committee of Central Ganga Authority revealed that industrial wastes accounted for about 33% of the pollution in U.P. 20% in Bihar and 27% in West Bengal.
See for details Ganga Action Plan Handbook published by the Ganga Project Directorate.

124. Ibid.

to Gangasagar comes to hundreds.¹²⁵ Though there was enough data regarding the intensity of industrial pollutants discharged untreated into the river, the Action Plan concentrated more on cleaning the river, undertaking schemes for the same.¹²⁶ Instead of planning in a future perspective, to reduce pollution at source by giving more attention to the task of phasing out or shifting some of the polluting industries and preventing the establishment of new ones, the emphasis given was for primary treatment of sewage and sullage.¹²⁷ The Central Ganga Authority urged the State Pollution Control Boards to ensure that industries provide treatment facilities. This reluctant action left the industries uncontrolled still polluting the river the picture of which is brought out through the Ganga Pollution case.¹²⁸ The court criticised the sluggish pace of the Ganga Action Plan at Kanpur.¹²⁹ It also ordered the Pollution Control Boards of U.P., Bihar and West Bengal to submit their reports regarding industrial compliance with the pollution control measure in their respective states.

125. Chemical Industries, DDT Factories, tanneries, paper and pulp mills, petrochemical and fertilizer complexes are examples of the industrial activities that line the river, Indian Drugs and Pharmaceuticals Ltd., Bharat Heavy Electricals Ltd., Oudh Sugar Mills of the Birlas, Orient Paper Mills, Refinery at Barauni are some of the major industries.

126. Id., pp.169-175.

127. Id., p.165. The plan envisaged the cleaning of cities with population more than one lakh as the first task. For this purpose, planned the diversion of sewage through pipelines followed by the creation of treatment facilities.

128. M.C.Mehta v. Union of India, A.I.R. 1988 S.C.1115. It is a case brought against nearly one thousand five hundred major and medium industries in the Ganga Basin.

129. Ibid.

P A R T I I I

CHAPTER VI

JUDICIAL CONTROL OF INDUSTRIAL POLLUTION

Environmental protection-slogan entertained by Indian even centuries before the western world realised the need for preserving it. Our history throws not glimpses but really flash of light towards this truth. The duty to maintain a clean environment can be found in various ancient laws where Manu and Kautilya stressed the need to live in harmony with nature.¹ People were restricted in their actions from assaulting nature. But this friendly attitude of ours had to struggle much to attire itself in its present form and splendour.² Our legal system is the example of how this struggle took place in the face of the inevitable good and bad consequences of western rule in our country. The contradictions are writ large in the host of judicial decisions during the period of India's march towards industrialisation and of late liberalisation and globalisation.

Owing to the complexity of modern conditions, the delegation of quasi-legislative and quasi-judicial functions to a number of administrative authorities and tribunals has become unavoidable. But if Rule of law and conformity to the provisions of the Constitution is to be maintained, these multitudinous administrative authorities having multifarious activities must be brought under the control of the courts of law.

1. Manu, VIII, p.282.

2. Kautilya, XXX, XIX, 197.

Environmental protection, at present being the task of the welfare state, administrative functions envisaged are many. Administrative authorities are dragged to the courts of justice when they fail to protect the environment. Environmental assaults are caused by human activities and in some cases by individual activities. Who is the actual culprit? Are not the people who endanger the biosphere in diversing ways? Thus the lethargic administrators and reckless offenders-whether corporations or individuals are equally involved. Necessarily the weapon of judicial action is turned against them all.

Judicial activism today is a feat achieved after a long journey in the past. The scattered provisions of the past law have meaningfully been used by the judiciary in order to block the mounting environmental assault.

To preserve is the path of progress and to pollute is the route to destruction is well recognised in this last decade of the century. Judiciary has contributed much for realising this slogan and attributing the meaning. Indian judiciary had inspiration from both national and international developments towards environmental issues and looked at the problem widely, shedding the traditional concepts or liberally interpreting the provisions. Attempt in this Part III containing three chapters is to analyse the judicial trend in safeguarding environment from hazards of pollution.

The transition from laissez faire to welfare concept has brought under its fold many inevitable transformations not only in the manner and matter of legislation but also in dispensing justice by the higher judiciary. The nature of the judicial process is no more purely adjudicatory nor is it functionally that of an umpire only. Affirmative action to make the remedy effective being the essence of the right which otherwise becomes sterile, the higher courts have become the guardian of public interest and individual liberties and attained the status of a supervising authority over and above its traditional function of resolving disputes and redressing grievances.³ However there are occasions when the judiciary withdrew itself into its shell when it tried to approve industrial strides by reconciling the conflict between development and environment. Sachidananda Panday's⁴ case is perhaps an example when tourism industry is reconciled with preservation of ecology.

At present both civil remedies and criminal sanctions are available through the courts of law against pollution caused by industries. The vast and wide nature of pollution caused by

3 Justice Krishna Iyer in Municipal Council of Ratlam v. Vardhichand, A.I.R. 1980 S.C. 1628 para 16; see also P.Lelakrishnan, "Access to Legal Service and Justice" [1984] C.U.L.R. 473.

4. Sachidananda Pandey v. The State of West Bengal, A.I.R. 1987 S.C.1109 at p.1136. "If courts do not restrict the free flow of such cover in the name of Public Interest Litigation, the traditional litigation will suffer and the courts of law, instead of dispersing justice will have to take upon themselves administrative and executive functions".

industries attract judicial remedies of all nature. In this event the citizen has a choice from among three civil remedies:⁵

- 1) a common law tort action against the polluter,
- 2) a writ petition to compel the agency to enforce the law,
- 3) a citizen's suit, when permissible, to enforce statutory compliance.

In addition, if the pollution amounts to 'public nuisance', a remedy under the Code of Criminal Procedure of 1973 is also available.⁶

Environmental law is an amalgam of both common law and statutory law.⁷ Common law has been administered by the common law courts of England since the middle ages.⁸ A right to bring an action in common law jurisdiction with consequent right to damages is invariably present where a tort is committed.⁹ This aspect of tort law enabled common law courts of England to extend common law remedies to abate pollution. .

5. Armin Rosencranz, Environmental Law and Policy in India (1991) p.77.

6. Code of Criminal Procedure 1973, Section 133. See supra.n 15 in Chapter 5 and infra, pp.27-32.

7. William H.Rodgers Jr. Handbook of Environmental Law (1977) p.100

8. 6 Encyclopaedia Britannica (1964),p.160.

9. 22 Encyclopaedia Britannica (1964), p.311.

"Tort is the branch of law governing actions for damages for injuries to certain kinds of rights, like the right to personal security, property and reputation. It is the breach of duty imposed by law, by which breach some one become entitled to sue for damages. It is a private right of action and every member of a civilised common wealth is entitled to require of others a certain amount of care and caution when they go about undertakings attended with risk to their neighbours".

The rules of tort law were introduced in India under the British rule and Indian courts evolved a blend of tort law adapted to Indian conditions.¹⁰ Common law based tort rules continue to operate under article 372 of the Indian Constitution which ensured the continuance of existing laws. However, in India the tort law is yet to develop. Even in Bhopal case¹¹ the Government of India put up the plea that Indian tort law was not developed and hence they approached the U.S.court for quick tort remedy for Bhopal victims. The Government had to come back humiliated by Justice Keenan¹² who said that

"Indian courts have the proven capacity to meet out fair and equal justice. To deprive the Indian Judiciary of its opportunity to stand tall before the world and to pass judgement on behalf of its people would be to revive a history of subservience and subjugation from which India has emerged".

The underdeveloped state of Indian tort law can be attributed to the fact that the attainment of a high environmental quality was not so far regarded as society's concern. In common law pollution cases fall under four categories- nuisance, negligence, trespass and strict liability.¹³

10. M.Setalvad, The Common Law of India, (1960) p.53.

11. Union Carbide Corporation v. Union of India, A.I.R. 1990 S.C. 273.

12. Upendra Baxi Inconvenient Forum and Convenient Catastrophe: The Bhopal Case (1986), p.69.

13. V.K.Beenakumari, "Environmental Pollution and Common Law Remedies" [1984] C.U.L.R. p.103.

Nuisance

Common law relating to nuisance was the first strong weapon used for combatting industrial pollution. A nuisance is an unlawful interference with the plaintiff's use or enjoyment of land. To the common man, it means anything that annoys, hurts or offends. According to Pollock, "Nuisance is the wrong done to a man by unlawfully disturbing him".¹⁴ In modern parlance, nuisance is that branch of law most closely concerned with 'protection of the environment'.¹⁵ Nuisance includes any act, omission, injury, damage, annoyance or offence to the sense of sight, smell or hearing or which is or may be dangerous to life or injurious to health or property.¹⁶

While industrial processes are being carried, it may be possible that nuisances of noise, pungent smell that may affect lungs, letting of effluents polluting the property of water and above all poisonous gas that may affect human life are caused. The person affected can approach a court on the plea of nuisance. Nuisance are of two types - public nuisance and private nuisance. A public nuisance can be defined as an unreasonable interference with the right common to general public whereas a private nuisance is a substantial and unreasonable interference with the use and enjoyment of land.¹⁷

14. Infra, n.64

15. Winfield and Jolowicz on Torts(11th ed) p.352.

16. The Cantonment Act of 1924, Section 2 (xxii)

17. Supra. n.7 at p.102.

A public nuisance is a crime and statutory recognition of this principle can be found in the early major Codes of Indian legislature.

Nuisance provisions were being utilised time and again for redressing the harm caused by industrial activities. Moreover the distinction between private and public nuisance has been considerably diluted due to the public nature of the harm included, i.e., in any private nuisance caused by industries, the presence of nuisance to the public is an undisputed question. In Datta Mal Chiranjilal v. Ladli Prasad¹⁸ the court held that public and private nuisances are not in reality two species of the same genus. When an electric flour mill within a busy locality caused much inconvenience by way of rattling and vibration, a permanent injunction was a must.

A private individual to be competent to bring an action in respect of a public nuisance has to prove that he has sustained some 'special damage' over and above that inflicted on the community at large.¹⁹ Industrial activities were mostly challenged from the very beginning using this provision and would include offensive smells, noise, air pollution and water pollution.

An act against which a plea of nuisance is taken is not wrongful in itself.²⁰ Therefore, in order to constitute an

18. A.I.R. 1960 All. 632 at 638.

19. Supra. n.15 at p.354.

20. James E.Krier, Environmental Law and Policy (1971), p.90.

actionable nuisance the act should be an unreasonable interference. It is a relative term and gravity of this unreasonableness is measured by the courts considering factors like the locality where the nuisance occurred, continuance of the action.²¹

In India as early as in 1905 pollution caused by an uncontrolled industrial activity was complained of as a nuisance to the neighbour.²² The plaintiff alleged that the refuse liquid from a shellac factory is foul smelling and noxious to the health of the neighbourhood. It has damaged him in health and comfort. The damage caused by the loss of market value of his garden property was the special damage which he had suffered over and above the others in the locality. The plaintiff prayed for perpetual injunction and damage and the court held that there being persistence in a proved nuisance,²³ an injunction for permanent stoppage of nuisance is the only effective remedy. The court also held that it is a case in which the damages awarded should not be normal but exemplary.

The general nature of early cases of industrial nuisance shows that the alleged nuisance was mostly caused by noise pollution.²⁴ But in none of these cases the word 'pollution' is

21. Supra. n.7 at p.112.

22. J.C.Galstaun v. Dunia Lal Seal (1905) 32 Cal.697.

23. Id., p.699. Therefore an award of Rs.1000/- in damages was ordered as early as in 1905:

24. Krishna Mohan Banerjee and Others v. A.K.Guha, A.I.R. 1920 Cal. 550; Raghunandan Prasad v. Emperor, A.I.R. 1931 All. 433; Ram Rattan v. Munna Lal, A.I.R. 1959 Punj.217 etc.

used. In all these cases the discomfort caused by the activity was sought to be remedied by an injunction.

Thus in Krishna Mohan Banerjee v. A.K.Guha²⁵ nuisance caused by the intolerable noise affected the physical comfort of the community. The court held that noise even if incidental to the lawful trade, if injurious to the comfort of community, amounts to nuisance. The word community means the same as neighbours or public.²⁶ Hence, an act found to be injurious to the physical comfort of the neighbours must be held to be so to the physical comfort of the community.

Sleep at night and concentration on their work during the day are ingredients of physical comfort.²⁷ Therefore if it is a serious nuisance and is sufficient to prevent neighbours from sleeping at night and from concentrating on their work during the day, it must undoubtedly be held to be injurious to their physical comfort. The right of the people for not being deprived of their sleep at night was recognised even at such an early occasion. Sleep is not a luxury of a few but it is a necessity of mankind generally and repeated disturbance of natural sleep must necessarily cause a great deal of discomfort and even suffering.²⁸

25. A.I.R. 1920 Cal. 550.

26. Raghunandan v. Emperor, A.I.R. 1931 All.433.

27. Ibid.

28. Shaik Ismail v. Nir Chinda, A.I.R. 1936 Mad. 905 at 906.

29. A.I.R. 1959 M.P. 240.

In Dhanna Lal v. Chittar Singh²⁹ the Madhya Pradesh High Court enumerated certain principles with regard to physical comforts which will amount to nuisance.³⁰ These principles were followed in evaluating the physical discomfort caused by industrial nuisance.³¹ Thus it is important to notice that a person can claim injunction to stop nuisance even in a noisy locality where substantial addition to the noise by introducing some machine, instrument or performance at the defendant's premises materially affects the physical comforts of the occupants of the plaintiff's house.

The question of physical discomfort caused by nuisance was thoroughly examined by Punjab High Court.³² It was held that substantial extent of discomfort has to be determined not merely with reference to the plaintiff, but from the point of view of any person occupying the plaintiff's premises irrespective of his position in life, age or state of health.³³

30. Ibid.,

1) Constant abnormal or unusual noise (2) Actual local standard of comfort (3) Disturbance to sleep during night and concentration during day time (4) Substantial addition to the noise (5) Defence of reasonable use will be ineffective.

31. Radhey Shyam v. Gur Prasad Sharma, A.I.R. 1978 All.86. Referring to Dhanna Lal v. Chittar Singh the court observed that the principle No.4 set forth in this case can be applied here.

32. Supra. n.21.

33. Id., p.402; Beharilal v. James Mclean and Others, A.I.R. 1924 All.392.

In order to be actionable a nuisance must materially interfere with the comfort or convenience of the ordinary persons judged by the standard of an average man.

But Ram Rattan v. Munna Lal³⁴ is a case where though the trial court as well as high court admitted the nuisance caused by power loom, did not allow permanent injunction. The court acknowledged the locality a sort of manufacturing and industrial area and so the essential test is to see whether there has been a serious addition to noise by the working of a second power loom. In the opinion of court a person living in the heart of the large manufacturing town cannot expect the same freedom from noise as in a secluded country side.³⁵ If the nuisance complained is in addition in an industrial locality, the test is to see whether there has been a serious addition by the working of the power loom in dispute to the noise which already prevailed in the locality. The court preferred to follow the stand taken in Convey v. Ladbitter³⁶ where it is said that the affairs of life in a dense neighbourhood cannot be carried on without mutual sacrifices of comforts.

Noise, if unusual or abnormal, interfering with one's physical comforts is an actionable nuisance, the test

34. A.I.R. 1959 Punj.217.

35. Supra. n.21 at p.402; Behari Lal v. James Mclean and Others, A.I.R. 1924 All.392.

36. (1863) 134 R.R. 610.

is whether it causes personal discomfort according to the standards of comforts in the locality. Thus it can be said that in order to constitute a nuisance, an unreasonable interference with comfort and enjoyment of property is enough, no need for showing any physical injury to the health of the complaining party or his family. In the words of Knight Bruce, V.C.

"Such an interference must be an inconvenience materially interfering with the ordinary comfort physically of human existence".³⁷

Smoke, fumes and smell which materially interfere with the ordinary physical comfort of human existence constitute a nuisance in law. They need not be actually noxious or injurious to health.

Nuisance is a state in which one feels something different from the normal. It is a subjective feeling and its gravity varies from person to person or from place to place. It is always a question of degree whether interference with comfort of convenience is sufficiently serious to constitute a nuisance.³⁸ So in order to be an actionable nuisance there are several factors to be taken into consideration by the court. That is, to be actionable, a nuisance has to be primarily unreasonable and substantial and that is governed by time, place, extent or the manner of performance of operations that are said to have

37. Walter v. Selve 20 LJ Chapter 433 as reported in Ramlal v. Mustafabad Oil and Cotton Ginning Factory, A.I.R. 1968 Punj. 399.

38. Ramlal v. Mustafabad Oil and Cotton Ginning Factory, A.I.R. 1968 Punj. 399.

become a nuisance. In our modern society and in the machine age every one must put up with certain amount of discomfort resulting from legitimate activities of one's neighbours. Nuisance also consists not only the excessive noise produced by the machines but also the vibrations, jarring and shaking of the plaintiff's house caused by the working of the defendant's machines.³⁹

There is a distinction between an action for nuisance in respect of an act producing material injury to property and one brought in respect an act producing personal discomfort.⁴⁰

Thus it can be seen that the attempts by the courts to remedy nuisance caused by various industrial activities made wider use of various aspects of the term nuisance and the conditions essential for the same.

Negligence

The common law tort of negligence also can be used to prevent pollution resulting from industrial operations if it is proved that the defendant who was under a duty to take reasonable care to avoid consequences has failed to do so and that the failure resulted in a breach of duty causing damage. The casual connection between the negligent act and the plaintiff's injury is often the most problematic link in pollution cases.⁴¹

39. Ibid.

40. 34 Halsbury's Laws of England (4th ed. 1980) p.136.

41. James E.Krier, op.cit., 169.

Negligence is invariably a nuisance if the act continues for a substantial length of time.⁴² It becomes a breach of the rule of strict liability if the act allows the escape of anything dangerous which the defendant has brought on to the land.⁴³

Due to the nature of industrial pollution, mostly negligence will result in either nuisance or a breach of strict liability because activities are usually a continuing process and industrial pollutants are invariably highly toxic with immediate effect as in the case of Bhopal Gas Tragedy. The fact that sometimes it is very slow in the process of harming and the resultant effect of the injury remain latent over long periods of time makes the plea of negligence least effective. Mukesh Textile Mills (P) Ltd v. H.R. Subramanya Sastry⁴⁴ is a case in which the court strongly criticised the negligence on the part of the plaintiff in not foreseeing the danger inherent in the act. Though it was virtually admitted that the rodents had burrowed holes into the earthen embankment of the tank, the defendant who had stored large quantities of molasses in a mud tank had the duty to take the responsible care in the matter of maintenance. The court applied the foreseeability test in holding the appellant defendant liable. Storing of such large quantities

42. Stone v. Bollow 1950 1 K.B.201 (CA).

43. Attorney General v. Carg Brothers Ltd 1921 AC 521 (HL).

44. A.I.R. 1987 Kant. 87. It is a case of strict liability.

of molasses invariably attract the application of the rule of Ryland v. Fletcher⁴⁵ as the defendant by his act had made a non-natural use of the land.

Trespass

Trespass is the intentional invasion of another person's interest in the exclusive possession of property.⁴⁶ Substantial injury need not be shown to succeed in action for trespass. The only requirement is the intentional unprivileged physical entry by a person or object. It can extend to airborne liquid and solids deposited upon a land⁴⁷ or an invasion by visible or invisible substances.⁴⁸ However trespass theory is inadequate to control instances of industrial pollution. It is mainly because pollution by the industries is not an intentional act as envisaged in the traditional definition of trespass and proving the intention, in many cases is not an easy task.

45. Infra, n.49.

46. Supra. n.13 at p.107.

47. James E.Krier, op.cit. p.190.

48. Id., pp.190-191.

Strict Liability

The rule in Ryland v. Fletcher⁴⁹ holds a person strictly liable when he brings or accumulates on his land something likely to cause harm if it escapes. Exceptions listed in the case itself resulted in the total dilution of the principle. An 1868 pronouncement regarding the storing of water in a reservoir which caused damage to the neighbour's property has been tested in several cases on several occasions.⁵⁰ Non-natural use of 'land' and 'escape' of something being a precondition for the application of this rule,⁵¹ it was being applied to a variety of circumstances. The term non-natural use of land has been interpreted to test the viability of this rule.⁵² Cambridge Water Co. v. Eastern Countries Leather Plc⁵³ a House of Lords decision considered the rule in Ryland v. Fletcher and environmental pollution, specifically ground water contamination.⁵⁴ The present position seems to be that the viability of the rule as a common law action to impose liability is getting more and more

49. Ryland v. Fletcher (1868) L.R. 3H.L. 330.

50. For a list of cases see Stallybrass, "Dangerous Things and Non-natural Use of Land", 3 Camb.L.J.373 at pp.382-385(1929)

51. "The Rule in Ryland v. Fletcher", Note 1947 63 L.Q.160.

52. Reed v. Lyons & Co.Ltd. 1947 A.C. p.156 at p.173.
In this case Lord MacMillan held that in these days and in an industrial community it was a non-natural of land to build a factory on it and conduct there manufacture of explosives. Lord Porter on the other hand made a striking comment that non-natural use is a question of fact and circumstances of time and practice of mankind must be taken into consideration in defining non-natural use, Id., p.176.

53. 1994 2 W.L.R.53. In this case Cambridge Water Co., a private water supplier brought an action against Eastern Countries Leather for contaminating with a chlorinated solvent, Perchloroethylene(PCE) which made water not 'wholesome' under U.K. Water Act.

54. "Recent cases" contaminated ground water foreseeability and the rule in Ryland v. Fletcher, A.L.I.R. Vol.68(1994)p.388.

restricted.⁵⁵ For instance the House of Lords, Lord Goff preferred to consider Ryland v. Fletcher only as a type of action in nuisance and rejected the notion of the rule being a separate doctrine in relation to hazardous activities. Considering the inherent limitations of the rule in extending the same to pollution cases, Lord Goff expressed his preference for a legislation for strict liability rather than for it to be a part of the common law.⁵⁶ The case signified another restriction on the viability of the rule as a common law action to impose liability.⁵⁷ A more generalised revival of this rule is now proposed in the law reform proposals.⁵⁸

Strict Liability rule in India

Indian Supreme Court preferred to make a remarkable deviation from the English judicial attitude when it modified the rule of strict liability to that of absolute liability. Pressed and encouraged by then prevailing situations the highest court openly declined to accept the British position as such and stressed the need for incorporating a wider application of the rule by rejecting the exceptions to the rule. According to the court the rule given in Rylands v. Fletcher is an out dated one

55. Ibid.

56. Ibid.

57. Ibid.

58. Law Commission No.32 (1970) (Report on Civil Liability for Dangerous Things and Activities) and Cmd. 7054 (1978), Vol.1, Ch. 31 (Royal Commission on Civil Liability and Compensation for Personal Injury).

and not effective in these days of scientific and technological developments. The court therefore felt the need for evolving new principles and laying down new norms which would adequately deal with the new problems which arise in a highly industrialised economy.⁵⁹

The court concluded:

"Where an enterprise is engaged in a hazardous or inherently dangerous activity resulting for example, in escape of toxic gas the enterprise is strictly and absolutely liable to compensate all those who are affected by the accident and such liability is not subject to any of the exceptions which operate vis-a-vis the tortious principle of strict liability under the rule in Rylands v. Fletcher."⁶⁰

M.C.Mehta decision is criticised as a departure from the common sense notion of causation as a pre-requisite for liability.⁶¹ Workman's Compensation Act incorporated this rule in the Act to make the employer liable for any personal injury caused to a workman by accident arising out of and in the course of employment.⁶²

Remedies

A nuisance can be remedied primarily by abatement without recourse to legal proceeding. But if one opts for a legal

59. M.C.Mehta v. Union of India, A.I.R. 1987 S.C.1086 at 1099.

60. Ibid.

61. Jayaprakash Sen, "Liability without responsibility" a problem of justice" [1992] C.U.L.R. 155 at p.162.

62. See infra n.67

proceeding, the available remedy is a civil proceeding for damage or injunction. According to Rodgers, remedial opportunities often fall into four broad categories namely (1) damages (2) land use accommodation (3) technological accommodation and (4) operational controls.⁶³

Considering the health hazard hidden in industrial nuisance and toxic nature of pollutants, abatement of pollution is the first step to be taken. This can be done either by an order of injunction or by directing the installation of best control technology. But when the act has already resulted in loss of any kind, damages are resorted to.

Damages

Damages are the pecuniary compensation payable for the commission of a tort. It may be substantial or exemplary. Substantial damages are awarded to compensate the wrong suffered whereas exemplary damages are of a deterrent nature aimed at punishing the wrong doer for his act. In industrial offences exemplary damages have received more judicial recognition. It has been elevated to a high pedestal with a view to reduce the tendency of polluters to pay and pollute. Persistence in a proved nuisance has been held in England to be a just cause for giving exemplary damages.⁶⁴ And in India an early as in

63. Supra. n.7 p.143.

64. Pollock's Law of Torts, (6th ed.) p.407.

1905 the Calcutta High Court⁶⁵ ordered the exemplary damages for causing pollution that affected the plaintiff by reducing the market value of his garden products. In the Shriram Gas Leakage,⁶⁶ the Supreme Court projected a new dimensions to judicial review and justified the need for compensation under Article-32⁶⁷ of the Constitution. The Court observed that in such cases, compensation must be correlated to the magnitude and capacity of the enterprise because such compensation must have a deterrent effect. The larger and more prosperous the enterprise, the greater must be the amount of compensation.⁶⁸ Statutory recognition of this provision can be found in Workman's Compensation Act.⁶⁹ Public liability insurance provision introduced for providing interim compensation to the victim of industrial hazards other than industrial workers can be proclaimed a novel step in the statutory recognition of the need for compensating pollution victims.⁷⁰ The principles of

65. Supra. n. 22.

66. Supra. n.59.

67. Id., p.1091. See also *infra* chapter 7 pp.36,37.

68. This conclusion of the court is being criticised by raising the question "will the court stick to the formula in cases of multinationals and enterprises, in the public sector and enterprises wholly owned and controlled by the State? D.C.Jain, "Case Analysis of M.C.Mehta & Another v. Union of India, A.I.R. 1987 S.C. 1086" in A.I.R. 1988 Journal 53.

69. The Workman's Compensation Act, 1923(Act No.8 of 1923). Section 3(1) states: "If personal injury is caused to a workman by accident arising out of and in the course of his employment, his employer shall be liable to pay compensation".

70. Public Liability Insurance Act, 1991. For details see supra. Ch. 4 pp.144-150

injunction and damages have got statutory recognition today.⁷¹

Thus it can be seen that the attempts by the courts to remedy nuisance caused by industrial activities made wider use of various aspects of the term nuisance and conditions essential for the same. But all these tests formulated in the course of judicial activism failed to give a precise and exhaustive definition for industrial nuisance. This was due to various factors. Firstly, industrial pollution being on the line of engulfing the whole universe, it has become difficult to prevent its consequences by expanding a provision like nuisance. Its significance is great as it has the deepest doctrinal roots of modern environmental law. It has paved the way for enthusiastic judicial activism and substantially helped in developing the statutory control mechanisms.

Dilemma in Nuisance

There is a dilemma felt in using the common law tort of 'nuisance' liability. The courts are to deduce the unreasonable nature of the cause of action in individual instances. It is not an easy task. The principles laid down by the courts in different cases lack in a precise final common nature and therefore abatement of the same depends on those varying factors. It is a balancing of issues in hand. Because a just

71. The Amendments to Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 in 1988 and 1987 added Section 33 A and Section 31 A respectively which empowered the Pollution Control Boards to order for the closure of an industrial unit. Similarly Public Liability Insurance Act, 1991 provides for paying interim compensation to the victims of pollution.

balance must be struck between the rights of the defendant and the plaintiff to use property for his each other's lawful enjoyment. In making such a balance, courts usually adopt a relative utility test. In cases where major polluters are large industrial firms, it is often difficult to prove unreasonableness in the conduct of their business having regard to their high economic and social status.

Another thing is that in nuisance cases by private individuals 'special damage' suffered by the plaintiff is tested and success depends mainly on adducing evidence for the same. Ram Baj Singh v. Babulal,⁷² is an example. The trial court and the appeal court admitted the presence of dust in the plaintiff's chamber. However, that did not deter the court asking for clear evidence of special damage to the plaintiff because of the dust in his chamber. The petitioner's plea was rejected on the ground that he failed to adduce the evidence of his patients to prove the special damage suffered by him.⁷³ If that is the plight of the case where presence of dust particles could very well be felt, what about those enormous air pollutants that can neither be seen nor felt? Industrial pollutants are of vast varieties and nature. So what about those instances where the pollutants as well as its effects are felt in the course of time? What about radiation pollution?

72. Ram Baj Singh v. Babulal, A.I.R. 1982 All. 285.

73. Id., p.286.

It is true that presently diminishing freshness of the air cannot be allowed to deteriorate further. Moreover, the theory of 'special damage' can no more survive in the era of public interest and social justice.

Public nuisance under the law of criminal procedure

A public nuisance results from an interference with the right of the public generally and attracts judicial interference for the removal. A tort action for public nuisance found statutory recognition in Section 133 of the Code of Criminal Procedure.⁷⁴ The section provides an independent, speedy remedy against public nuisance. It is the oldest remedy for checking pollution that caused nuisance to others and is still in use years after the enactment of specific legislation for the prevention and control of pollution. Under this provision the Executive Magistrate can act on information received from a police report or any other source including a complaint made by a citizen. This power of the Magistrate covers environmental exigencies where the complaint is from a single individual about his or her personal grievance. This is elaborated and justified by the High Court in the following words:

"It is not the intent of law that the community as a whole or a large number of complainants come forward to lodge their complaint or protect against the nuisance; that does not require any particular number of complainants".⁷⁶

74. Section 133, Code of Criminal Procedure, op.cit.

75. Krishna Gopal v. State of M.P., 1986 Cri.L.J. 396(MP).

76. Id., p.399.

The provision under the Code of Criminal Procedure existed prior to the adoption of constitutionalism in the country. Probably because environmental problems were not that gigantic in those days, the provision was rarely used for pollution abatement in the post constitutional period. Judicial enthusiasm to discuss the provisions from all dimensions is reflected in 1979 Supreme Court decision, Gobind Singh v. Shanti Sarup.⁷⁷ The complaint raised was against public nuisance caused by an oven and chimney of the bakery. The Executive Magistrate made a conditional order for its demolition within ten days. On reaching before it, the Supreme Court tried to identify the public nature of the nuisance and approached the issue from a wider perspectives.⁷⁸ The threat to health, safety and convenience of the public at large was looked from the social justice angle and Supreme Court accepted the view of Magistrate.

Evidently, Municipal Council, Ratlam v. Vardhichand⁷⁹ is a land mark in the path of Supreme Court's attempts to evaluate social significance of irradicating public nuisance. It is also the first instance where a public authority namely a municipality, was compelled to face a public nuisance litigation. The facts are interesting. Pollution resulted not only by stench and

77. A.I.R. 1979 S.C. 143.

78. Id., p. 145

79. A.I.R. 1980 S.C. 1622.

stink caused by open drains and public excretion but also by the discharge of maledourous liquids from the Alcohol plants, for which the city was famous. The residents of the Ratlam became frustrated by the do nothing policy of the Municipal authorities. They approached the District Magistrate complaining under the provision in criminal procedure against to Municipality who thoroughly failed to perform its duty to keep the territory clean. After going through many stages the legal matter reached the Supreme Court who found the responsibility the Magistrate under section 133 as a public duty implicit in the public and pursuant to a public proceedings⁸⁰ and described it as a mandatory duty and an instance of social justice due to the people.⁸¹ The key points that elevate the judgement to a high pedestal include recognition of the Magistrate's power under Section 133 of Code of Criminal Procedure,⁸² emphasis of the court's power to force public bodies under public duties to implement special plans in response to public grievances⁸³ as well as open and vehement criticism of public body like municipality for the irresponsibility.⁸⁴ Criticising the attitude of

80. Id., p.1628.

81. Id., p.1628.

82. Id., p.1628. "The Magistrates responsibility under Section 133 of the Code of Criminal Procedure is...a public duty implicit in the public power to be exercised on behalf of public and pursuant to a public proceeding".

83. Id., p.1627. "The imperative tone of Section 133 of Code of Criminal Procedure read with the punitive temper of Section 188 of Indian Penal Code makes the prohibitory act a mandatory duty".

84. Id., p.1629.

Municipal authorities⁸⁵ and directing them to take immediate steps within its statutory powers to stop the effluents from the Alcohol Plant flowing into the streets and make other measures against environmental degradation. Supreme Court looked at the emissions of both industries and concerned municipal authorities as a challenge to the social justice component of the rule of law.⁸⁶ In the words of Justice Krishna Iyer,⁸⁷ who spoke for the court, the case involved

"a few profound issues of procedural jurisprudence of great strategic significance to our legal system and the court must zero-in on them as they involve problems of access to justice for the people beyond the blinkered rules of standing british Indian vintage".

Krishna Gopal v. State of M.P.⁸⁸ relates to a nuisance created by a glucose saline factory in a residential locality. The complaint was by a lady resident saying that her husband, a heart patient, had been disturbed by the noise produced by the booming boiler in the factory day in and night. One of the crucial questions answered by the Court was whether Section 133 of Code of Criminal Procedure can be invoked by a single person for personal grievance. On police report it was found that it is not private nuisance but public nuisance affecting many.

85. Ibid.

86. Id., p.1629.

87. Id., p.1623.

88. Supra. n.75.

Recognising every man's home to be his castle which cannot be invaded by toxic fumes or tormenting sounds the court expressed its annoyance for the neglect and disregard of the society towards environmental crimes.⁸⁹ Environmental crimes, more serious than murder are dealt casually without much importance. The act of granting licence within the residential locality was prima facie violative of the law, the court felt.

Madhavi v. Thilakam⁹⁰ concerned to noise made at night by automobile workshop. The Kerala High Court emphasised the need to abate nuisance under this section as a recognition of people's right to live. It is a constitutional reality to have personal autonomy, free from intrusion and appropriation.⁹¹ Recognition was given to the fundamental right to live, and to sleep in peace has been made a vital part of the right to live.⁹²

Ajeet Mehta v. State of Rajasthan⁹³ is still another case where the higher court once again endorsed the order of Magistrate under Section 133 of the Criminal Procedure Code directing the removal of a business enterprise from a residential locality as in the case of Himmat Singh and Others v. Bhagwana Ram and Others.⁹⁴

89. Ibid.

90. 1989 Cri.L.J. 499.

91. Ibid.

92. Ibid.

93. 1990 Cri.L.J. 1596.

94. 1988 Cri.L.J. 614.

All these cases are instances of how the judiciary tried to read between the lines and brought to light the fundamental duty of everyone to protect and improve the natural environment. The courts have tried to recognize the solidarity of dwellers in cities and residential colonies against industrial pollution. Industrial activities are to be kept away from those areas where people take shelter after the day long tiresome activities. Krishna Gopal's is an instance when activities having the potential, to pollute and harm instead of activities really harming, can be caught in the net of public nuisance under Section 133 of the Criminal Procedure Code. Only one person complained. Still the court held the activities as creating not private nuisance but as public nuisance eventhough it decided to on police report. The significance of this remedy is great and it restricts and even prohibit fundamental right to trade or occupation when the utilisation of the right becomes injurious to health or physical comfort of the community.

Common Law Remedies and Specific Statutes

Enactment of specific legislation for the prevention and control of pollution was the first legislative step after the Stockholm Conference. The Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981 and Environmental Protection Act, 1986 provide envisage steps to abate pollution. But even after these enactments use of common law remedies continued. The attitude of the courts towards this was not the same. In a few cases, the validity

of invoking the jurisdiction of Executive Magistrate under Section 133 was challenged. The High Courts were, in dilemma.⁹⁵

Existence of alternative remedy was raised in some of the earlier cases as well. In the case of Krishna Mohan Banerjee and Others v. A.K.Guha⁹⁶ the Calcutta High Court felt that the Magistrate could have acted more wisely in advising the complaint to set in motion the machinery provided by Act 3(B.C) of 1890. At the same time the court stressed that the existence of an alternative remedy does not deprive the Magistrate of his jurisdiction.

In Lalman v. Bishombhar Nath⁹⁷ the defendants invited the attention of the Court towards the first section of Criminal Procedure Code, 1898 which made it clear that it would not affect any special or local law then in force. In the opinion of the defendant this covered Municipalities Act as well although, it was passed after the code. The Court was to decide whether the

95. We see that High Court of Kerala which vehemently opposed existence the jurisdiction of Magistrate under Section 133 in pollution case when the specific legislation for the same has already been enacted in 1984. But in 1989 a notable decision in Madhavi v. Thilakam brought under Section 133 cheered the solemnity of the jurisdiction of Magistrate under Section 133 and said:

"We recognise every man's home to be his castle which cannot be invaded by toxic fumes and tormenting sounds. This principle expressed through law and culture, consistent with nature's ground rules for existence has been recognised in Section 133 (1) (b)."

96. Supra. n.25.

97. A.I.R. 1932 All.59.

Magistrate has got power to declare a licensed industrial unit as public nuisance, where as under the Municipalities Act, a person aggrieved by an order of the Board on a question of this nature has a right to appeal to the District Magistrate.⁹⁸

The court opined that the Magistrate had jurisdiction to pass an order under Section 133 to regulate the manner in which Lalman conducted his business if he found that in doing so Lalman was acting in a manner injurious to the health or physical comfort of the community. But he continued to say that such an order by a Magistrate is open to general objection in so far as it must inevitably reflect on the orders of the Municipal Board.⁹⁹

Rajagopala Chettiar v. Sandum Begam¹⁰⁰ is still another instance where the question of using alternative remedy was raised. The facts are that the joint Magistrate of Trivandrum issued a preliminary order under Section 133 of Criminal Procedure Code calling upon the owner of a local rice mill to cease working the factory or remove it to some other place on the ground that it constituted a nuisance since it affected the health and comfort of the general public living in the locality. The court rejected the plea that by virtue of the corresponding

98. M.P.Municipalities Act, Section 318.

99. Supra. n.97.

100. A.I.R. 1943 Mad.357.

provision in the local Acts,¹⁰¹ the Magistrate had lost his jurisdiction to deal with nuisance of this character. The court found nothing conflicting in all these legislative provisions, the difference between them are only in the remedies provided.¹⁰² Moreover, code is an Act of Indian Legislature and its provisions cannot be in any way effected by a local act.¹⁰³

In P.C.Cherian v. State of Kerala¹⁰⁴ the act of proceedings by Executive Magistrate upon police report under Section 133 Criminal Procedure Code was challenged on the ground that it is not within the province of the Magistrate to see whether the conditions under statutes like Panchayat Act and Factories Act are satisfied. Moreover the plaintiff had already got an injunction against the Panchayat restraining them from cancelling the licence. The court upheld the power of Magistrate to invoke Section 133 if the exigencies warrant such an extreme course.

One can in the case, find that existence of nuisance or the abatement thereof will stand independent of the right of the petitioners to carry on the work of the factory unhampered by

101. Madras Public Health Act, Section 44 and Madras Local Boards Act, Section 195.

102. A.I.R. 1943 Mad. 357 at p.358.

103. Id., p.358-359.

104. 1081 K.L.T. 113.

the Panchayat authorities or the public and the Executive Magistrate's power for the same is an exclusive power.

In a later case Andhra Pradesh High Court reiterated this view¹⁰⁵ by justifying the order of S.D.M. The court rejected the plea of obtaining N.O.C. from Pollution Control Board and paying the cess every year as ousting the jurisdiction of the S.D.M. The mere obtaining of a N.O.C. at an anterior point of time will not ensure the petitioners the benefit of not producing appreciation certificate required by S.D.M.

But the question of the scope of this section in dealing with pollution of water and air in the wake of specific legislation for the same are being enacted when came up before the High Courts of Kerala and Madhya Pradesh. They took a different stand and curtailed the wide amplitude of Section 133. In Tata Tea Ltd v. State of Kerala,¹⁰⁶ the relevance of this section to deal with and prevent the discharge of effluents to the river when the Water (Prevention and Control of Pollution) Act, 1974 which is a code in itself came up for consideration. The court accepted the proposition that the provision of Section 133 stood impliedly repealed in so far as they related to prevention of water pollution. The court tried to substitute the Water Act for nuisance remedy by saying that all the remedies which could be provided by an

105. M/s Nagarjuna Paper Mills Ltd., v. S.D.M. & R.D. Office
1987 Cri.L.J. 2071.

106. 1984 K.L.T. 645.

an Executive Magistrate under Section 133 could certainly be provided by authorities contemplated under the Act.¹⁰⁷ Similarly the Madhya Pradesh High Court in Abdul Hamid v. Gwalior Rayon Silk Mfg (Wvg) Co.Ltd¹⁰⁸ held that the special statutes on pollution of water and air have to prevail over Section 133 of the Criminal Procedure Code and the provision of I.P.C.¹⁰⁹ The court went to the extent of saying that bringing and labelling the act as a public nuisance when the special act prevails is just to evade the requirement of previous sanction under the special Acts, and characterised the trend as colourable. The court felt the urgent need for proper balance between the conflicting claims of nation's industrial progress and the hazards to the health of the citizens.

The attitude of these courts in some way diminished the prospective scope of the Criminal Procedure Code. It is described as the lost opportunities for the courts to appreciate the role of Section 133 in preventing pollution? The proposition raised in favour of this argument is the availability of Magistrate in every district as well as the sluggish speed of the wheels of Pollution Control Board.¹¹⁰

107. Id., p.648.

108. 1989 Cri.L.J. 2013.

109. Id., p.2015.

110. P.Leelakrishnan et.al., "Evolving Environmental Jurisprudence The Role Played by the Judiciary" in P.Leelakrishnan (Ed) Law and Environment, p.126.

But amendments brought to the Water Act as well as Air Act in 1988 and 1987 respectively has considerably widened the powers of Pollution Control Boards. It also makes citizen's suit possible giving sixty days notice.¹¹⁰ The fact that State Pollution Control Board has got their Pollution Control Board Office at the district level with environmental Engineers, solves both the difficulties to greater extent. Utility of the amended provisions of the special Acts has to be encouraged by the courts. But that should not mean automatic repeal of public nuisance provision under Section 133 Criminal Procedure Code with regard to air and water pollution. Its relevance can never be curtailed. It has to be there as a simultaneous option for the aggrieved persons. But ever increasing number of environmental litigation demand much more time and expertise which may not be possible for the Executive Magistrate. The fact that on several occasions solving environmental issues needed the constitution of commissions and committees,¹¹¹ indicates the expertise in demand of. Secondly on many occasions the issues raised contains fundamental questions such as the fundamental right to live in a pollution free environment of the public including in workers on the one side and the

110. For details see supra. chapter 4 pp. 116, 117.

111. M.C.Mehta v. Union of India, A.I.R. 1987 S.C. 965; For details also see infra. chapter 7 pp. 241-244.

right to work and have livelihood of the workers. The court has on several occasions to weigh the danger that the general public has to face against the deprivation of the workers of their means of livelihood by stopping the work of the factory.¹¹²

Moreover the addition of new section 33 A and 31 A under the water and air act respectively enable the Pollution Control Board to take immediate action even without recourse to the courts. The Boards can not take immediate action to stop the functioning of polluting industries. But it is too much for the High Court.

Even after such a ruling of M.P. to look at pollution control laws as a means for the protection of industries ensuring a proper balance between the conflicting claims of the nation's industrial progress and the hazards the citizens. Whatever may be attitude of these High Courts, in Ratlam's case the Supreme Court has well recognised the role of Executive Magistrate in abating pollution in a locality.

112. For details see Id., pp. 256-260

CHAPTER VII

EBBS AND FLOWS IN JUDICIAL ACTIVISM

The limitations attendant on nuisance cases in contradistinction to the wider amplitude of pollution instances handcuffed the judiciary due to several reasons. For instance common man is not concerned with social righteousness, but with individual rights¹ where as environmental protection is a social obligation. The fact that in conventional disputes the role of judge is that of a neutral umpire and the whole procedure revolves round the questions of fact and law limited the scope of judicial activism considerably. Courts were only a fact finding bodies balancing the issues in hand and resolving the dispute between the private parties. They were then to decide only the questions of fact and law pertaining to past events.

There were other simultaneous processes taking place during the time. The growth of nations into welfare states inevitably brought governments in direct contact with the day-to-day activities of the people. Post-independence developments in our country made a fresh look at the things from a different angle inevitable. More and more involvement of the governing authorities in the welfare of the governed brought in its wake the need for a change. Forty Second Amendment

1. Rosco Pound, "Do we Need a Philosophy of Law",
5 Colum.L.R.(7905) p.339 at 346.

of the Constitution can thus be said to be both the culmination of this long felt need and at the same time the commencement of a new era of social justice.²

Social justice brought under its perspective a wide variety of activities which essentially needed governmental interference. In the field of environmental protection the general awareness inspired by the U.N. Conference on Human Environment held at Stockholm in 1972 also had its impact. All these factors led to many radical changes during the 1970-80s in the overall administration and judicial review.

The arena of Judicial Activism

The 42nd Amendment Act introduced the word 'socialist' within the Preamble of the Constitution.³ The ultimate result is interesting. The task of ensuring justice to the poor and weaker sections was placed on the shoulders of the judiciary. But for achieving the goal, a shift or transition from the otherwise normal traditional route became essential. The existing social evils and distress of the weaker sections necessitated evolving an innovative procedure. The joint venture of social workers got recognition of the highest court when the Supreme Court felt it necessary to pay heed to and

2. Social Justice is described by the Supreme Court as species of "justice" in generic sense. Consumer Education & Research Centre v. Union of India, A.I.R. 1995 S.C.922 at p.938.

3. 42nd Amendment Act, 1976 included the word socialist in the Constitution of India 1950.

consider the helplessness of these weaker sections.⁴ The growth of a new judicial process was the result giving fillip to formulation of a new environmental jurisprudence. A fresh look at the principle of locus standi with a view to liberalise the same resulted in the growth of public interest litigation (PIL). Under this head, attention of the highest courts were attracted to the arena of public grievances of diverse types. The liberal attitude of the Supreme Court resulted in the relaxation of procedural requirements of litigation. Even letters written to individual judges or the court were treated as writ petitions.⁵

The growth of environmental awareness was a prelude to this new trend of judicial redress. Further growth went parallel. This was welcome development as it belittled the hurdles of locus standi in environmental cases. When industrial growth unavoidably brought in its wake the ill effects of pollution, the liberalising attitude of the courts inspired environmentalists for invoking the jurisdiction of highest courts for redress. Because, industrial activities mostly resulted in public nuisance at a wider amplitude and environmental issues related more often to the diffuse

4. Bandhua Mukti Morcha v. Union of India, A.I.R. 1984 S.C.802 at p.811. Supreme Court described 'social justice' as a dynamic device to mitigate the sufferings of the poor, weak and deprived sections of the society.

5. Rural Litigation and Entitlement Kendra v. State of U.P. A.I.R. 1987 S.C. 359.

interests of a group of people than to ascertainable rights of individuals. The joint venture of environmentalists and judiciary opened new vistas for environmental litigation. Thus public interest litigation emerged as a growing mechanism in the field of environmental protection.⁶

Early activism through public nuisance case

It is interesting that the boost that thrust the flow of environmental litigation floods came first from not a constitutional law case but from a public nuisance case described early.⁷ The traditional procedure in a tort of nuisance is to weigh the circumstances against the grievances. For this one takes into consideration those factors which give rise to the actionable nuisance and issue a final order in the form of injunction or damages.⁸ In *Ratlam's*, distinct from this usual procedure, the court tried to peruse the existing legislation from a new social justice perspective. Although the case related to the negligence of local bodies, the court did not miss criticising the nuisance caused by big factories as a challenge to the social justice component of the Rule of Law.⁹

6. P. Leelakrishnan, "Evolving Environmental Jurisprudence" in P. Leelakrishnan et al. (Eds.), Law and Environment, (1992), 126 at p.150.

7. Municipal Council, Ratlam v. Vardichand, A.I.R.1980 S.C.1622.

8. For details see supra, Ch.6.

9. Supra, n. 7 at p.1629.

Thus the judgement illustrates how an activist court can transform a seemingly dull legislation into a powerful mandate to protect the environment.¹⁰ The decision in the case related to neither an order of injunction nor damages but a direction to the public authority to perform its obligations which inevitably is in the form of a prerogative writ. The procedure followed by the Supreme Court highlights the scope of judicial interference in administrative matters. The judgement explicitly recognises the impact of a deteriorating urban environment on the poor and links the provision of basic public health facilities to both human rights and the directive principles in the Constitution.¹¹

The need for compelling public authorities was felt by the court and directions issued under section 133, happened to be in the form of a writ of mandamus in disguise. It is made clear that the court cannot extricate itself from its responsibility.

Similarly, judicial interpretation of public nuisance and reading between the lines to widen the right to life so as to include right to clean environment can be seen in some other cases decided by High Courts.¹²

10. Rosencranz, et. al., (Eds), Environmental Policy and Law in India, (1990) p.103.

11. Id., p.96.

12. Madhavi v. Thilakan, A.I.R. 1989 Ker. 499;
Krishna Gopal v. State of M.P., 1986 Cri.L.J. 396 (M.P).

But these cases also highlight the strain involved in evolving such new principles through public nuisance cases. Because the nature of environmental issues demand the balancing of issues far beyond the scope of the section in order to provide protection from environmental hazards. Thus in P.C.Chериyan v. State of Kerala¹³ the court weighed the danger to the general public against the loss of jobs for the workers. The lengthy procedure involved in adducing evidence and resultant delay in reaching the final decision¹⁴ and need for strict adherence to the procedural formalities are some of the drawbacks of nuisance litigation. The relative speed and simplicity and cheapness of writ remedy encouraged the change which enabled direct access to the higher courts. The prospective nature of the judgement aimed at preventing continuing of the offence into the future.¹⁵

Writ Jurisdiction and Industrial Pollution

There was no provision either in the Water Act or Air Act originally for class action or citizen suit except for approaching the Pollution Control Board to initiative action or to give

13. 1981 K.L.T. 113.

14. In Ratlam's case, for example, the delay caused for a final action was 10 long years.

15. Environmental offences do have consequences extending to the future also and traditional nuisance suits usually fail to prevent this because the affected parties will have to complain again and again for redressal.

permission for any action.¹⁶ This situation resulted in the overwhelming use of the jurisdiction of the Supreme Court under Article 32 and of the High Courts under Article 226¹⁷ against the polluters. Article 32 and 226 can be invoked for compelling public authorities to perform public duties and to restrict the discretionary power of local authority to issue licence. Thus one finds in N.V.Subha Rao v. Government of A.P.¹⁸ that residents of a locality whose health is alleged to be affected by the existence of foul smell emanating from a bone factory have a standing.

Though the writs of certiorari, prohibition and mandamus are of use in environmental protection especially industrial pollution, it is the writ of mandamus that has been used again and again for arresting environmental deterioration and health hazards caused by industrial activities.

Public Interest Litigation (PIL)

The nature of industrial pollution is such that it affected the diffuse interest of the public at large. Who will represent these interests? The Public spirited persons started taking their cause against environmental hazards caused by

16. Section 28 of the Water Act, 1974 and Section 31 of the Air Act 1981 provide for appeals. But it can be availed only by persons aggrieved by an order of the Board.

17. Articles 32 and 226 of the Constitution empower the Supreme Court and High Courts respectively to issue directions, orders or writs of different types.

18. A.I.R. 1969 A.P. 98.

industrial activities. Thus in the early eighties did grow PIL initiated by their more public interest. PIL, which is a comparatively modern development constitutes a significant segment of the expanding horizon of judicial power and has acquired legitimacy. The court described PIL as a strategic arm of the legal aid movement.¹⁹ Through the new jurisdiction, the Indian Judges have undertaken expanding responsibilities as critics and monitors of government and its agencies.²⁰ The scope and nature of PIL has been decisively laid down by the Supreme Court in the Asiad case²¹ when Justice Bhagwati described PIL as a challenge and an opportunity to the government and its officers to make basic human rights meaningful to the deprived and vulnerable sections of the community. He also made certain revealing statements that mere initiative of social economic rescue programme by the executive and the legislature would not be enough and it is only through multi-dimensional strategies including PIL that these social and economic rescue programme can be effective.²² Although not in PIL case, Justice Krishna Iyer observation in Ratlam's

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19. People's Union for Democratic Rights v. Union of India, A.I.R. 1986 S.C. 1473.
20. Paramanand Singh, "Public Interest Litigation", XXI A.S.I.L. 1985, p.160.
21. Supra. n.19.
22. M.Krishna Prasad, "Public Interest Litigation: A New Juristic Horizon", A.I.R. 1984(JA) 1 at p.3.

case as early as 1980 is significant. He says

"Moreover, shifting the centre of gravity of justice from the traditional individualism of locus standi to the community orientation of public interest litigation is a constitutional mandate enshrined in the preamble".²³

The Supreme Court has thus taken the task of implementing the constitutional mandate for legal aid²⁴ introduced by forty second amendment. It is an attempt to protect and promote social justice through the instrumentality of law. PIL is a correct reaction from the court itself in the shape of judicial effort to solve the much agitated problem of access to justice in the legal conscience of our country.²⁵ It can be said to be a right step taken in line with the international effort to attain sustainable development. It is a most reliable way of imparting justice to the otherwise ill-fated poor and weaker sections.²⁶

Courts entertain PIL not in a cavalier fashion. Nor do they adopt confrontation with the Executive and jump into the latters shoes in ensuring social and economic rescue programmes.

23. Supra, n.7 at p.1623.

24. Article 39A reads:

"Equal justice and free legal aid: The State shall secure that the operation of the legal system promotes justice on a basis of equal opportunity and shall, in particular, provide free legal aid, by suitable legislation or schemes or in any other way, to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities".

25. Supra, n.21 p.2.

26. Supra, n.19.

They merely assist in the realisation of the Constitutional objectives.²⁷ But at the same time one can notice that the Supreme Court preferred to bind itself in self-discipline and expressed resentment at the liberalising policy from inside towards PIL.²⁸ Side by side with the liberalization of locus standi and the acceptance of PIL, the court has also laid down a few constraints in the judicial handling of PIL cases.²⁹ Courts thus evaluated environmental problem from different angles to evolve environmental jurisprudence.

The courts had to make use of different strategies for achieving the task. Liberalization of standing was the first criteria adopted for access to justice. In the area of industrial pollution its credit is incredible because hazards resulting from industrial activities usually may go beyond the comprehension of the immediate victims.

Much more expertise and deeper knowledge is essential to challenge pollution caused by the big industries. For example, in Rural Litigation Kendra v. Union of India³⁰ and M.C.Mehta v. Union of India,³¹ the effort and endeavour spent by the petitioners is far ahead of the capacity of an ordinary person though he may be an immediate victim of pollution.

27. Supra, n.4.

28. Sachinanda Panday v. State of West Bengal, A.I.R.1987 S.C.1109.

29. State of H.P. v. A Parent of a student of Medical College, Simla, A.I.R. 1985 S.C.910.

30. Supra.n.5.

31. A.I.R. 1987 S.C. 965; A.I.R. 1987 S.C.1086.

Locus standi

Relaxation of the strict rules of locus standi became essential to provide adequate justice to those public whose interests were affected. It is a departure from the traditional practice that only a person aggrieved can have a standing in the court. One should prove 'special damage' suffered by him to acquire locus standi.³²

A few instances where public can approach the court are those provisions under section 91 of the Civil Procedure Code and Section 133 of Criminal Procedure Code.³³ But when the special legislation for environmental protection also incorporated the old practice of seeking jurisdiction through the Attorney General for resisting hazardous industrial processes, the environmentalists felt it to be a real hurdle in environmental protection. The result was that they were attracted by the move, that has already been started by the Judges of Supreme Court, of liberalising the locus standi and started using it to redress hazardous processes by bringing PIL under Article 32 or Article 226 of the Constitution. Thus the traditional rule insisted for some personal stake in the litigation while determining the standing of the petitioner,

32. "De Smith and Brazier, Constitutional and Administrative Law (6th ed. 1989) p.590. Broadly speaking, an applicant for judicial review must at least have an individual specific interest to pursue, which interest is detrimentally affected by an alleged administrative breach of duty or illegality".

33. See for gist of the provisions, ch.5 pp.157-160

which will distinguish him from the other members of the public.³⁴ The general proposition of the law is that the interest of an individual in the vindication of a public right would be sufficient to give him locus standi provided that he is prejudiced by the injury to the public interest more than the other members of the public are prejudiced thereby.³⁵ These Indian jurists³⁶ have classified petitioners into three categories for the purpose of deciding the standing of the petitioner. (1) Persons whose legal rights are directly or substantially affected, (2) Persons who do not claim to have suffered any loss or damage but claim injury as a member of public, (3) Persons who are total strangers ie. middle some interfloppers.

The problem of liberalising the requirement of standing is confined to persons coming under the second category and it affects only those persons coming under this group.

Liberalizing the rule of standing is a forward step in judicial activism and favour expansion of judicial review.³⁷ In a welfare state such exercise of judicial supervision is quite welcome to maintain the rule of law and to check

34. M.P.Jain and S.N.Jain, Principles of Administrative Law, (3rd ed.) p.402.

35. Ibid.

36. Id., p.400.

37. Maheshwar Nath Chaturvedi, "Liberalizing the Requirement of Standing in Public Interest Litigation", 26 J.I.L.I.42 (1981)

the misuse of power. It is also essential to secure fundamental rights of the poor people of the country. Justice Bhagwati rightly argued that if no one will have standing to challenge cases of public wrong or public injury, then there will be no rule of law.³⁸ In his concurring opinion in

Fertilizer Corporation Kamargar Union v. Union of India,³⁹

Justice Krishna Iyer observed,

"In simple terms locus standi must be enlarged to meet the challenges of the time. Ubi jus ibi remedium must be enlarged to embrace all interests of public minded citizens or organisations with serious concern for conservation of public resources and the direction and correction of public power so as to promote justice in its triune facets".⁴⁰

Locus standi in Industrial Pollution Cases

Judicial diction for liberalizing locus standi laid down through those cases that came up for judicial interpretation in the early 80s.⁴¹ This helped those who wanted to challenge hazardous industrial practice to a great extent since the need for establishing their standing in the court was no more falt. This will be more clear if we consider

38. S.P.Gupta v. Union of India, A.I.R.1982 S.C. 149.

39. A.I.R. 1981 S.C. 344.

40. Id., p.355.

41. S.P.Gupta v. Union of India, A.I.R. 1981 149; Fertilizer Co Kamargar Union v. Union of India, A.I.R.1981 S.C.344; and Bandhua Mukti Morcha v. Union of India, A.I.R.1984 S.C.802.

the attitude of the High Court of Andhra Pradesh in the case of Dr.N.V.Subha Rao v. Govt. of A.P.⁴² In this case the Andhra Pradesh High Court recognised the locus standi of the petitioners because they were residents of the locality whose health was alleged to be affected by the existence of foul smell emanating from the factory. But the court differentiated between an aggrieved party and a member of the public. The difference in these two cases is that if the writ of certiorari is filed by an aggrieved party, the High Court cannot dismiss the application on the ground of standing. But in the other case the issue of writ is a discretionary matter for the High Court.⁴³

But, by the time the Dehradun Quarrying case⁴⁴ was brought to the notice of Supreme Court, the attitude had totally changed and a letter from Rural Litigation and Entitlement Kendra alleging illegal limestone quarrying was treated as a writ petition. Recognising the citizen's locus standi the court observed that preservation of the environment and keeping the ecological balance unaffected is a task which not only governments but also every citizen must undertake. It is a social obligation and citizen's

42. Supra.n.17.

43. Mohammed Kutty v. State of Kerala, 1987 K.L.T..91

44. Supra.n.5.

fundamental duty as enshrined in the Constitution.⁴⁵ This liberal judicial attitude encouraged the social action groups and inculcated in them the enthusiasm and spirit to evaluate industrial and developmental projects from environmental angle. In Ganga Pollution case⁴⁶ the court upheld the standing of a Delhi resident to sue the government agencies. According to the court his interest in protecting the lives of the people who make use of the water flowing in the river Ganga and his right to maintain the petition cannot be disputed.⁴⁷

Parens Patriae

Liberalization of locus standi took a new turn when in the wake of Bhopal gas disaster the Government of India passed Bhopal Gas Disaster (Processing of Claims) Act 1985.⁴⁸ The standing of Union of India to bring the suit was justified by the authorisation of this Act. For the purpose, the Union of India has invoked the doctrine of Parens Patriae.⁴⁹

45. Bombay Environmental Action Group v. State of Maharashtra and Others, A.I.R. 1991 Bom. 301; D.D.Vyas v. Ghaziabad Development Authority, 1993 All. L.J. 86 at p.91; Rural Litigation and Entitlement Kendra, v. State of U.P., A.I.R. 1987 S.C. 359.

46. M.C.Mehta v. Union of India, A.I.R. 1988 S.C. 1115.

47. Id., p.1126.

48. The Bhopal Gas Leak Disaster (Processing of claims) Act 1985. (Act 21 of 1985) for the draft see 1985 C.C.L., p.119.

49. Dr.S.K.Mukherjee in his "Hindu Law of Religious and Charitable Trusts", Tagore Law Lectures, 5th ed. p.404, referring to the concept of parens patriae has noted: "The concept of Parens Patriae has English origin where the crown as Parens Patriae is the Constitutional protector of the subjects essentially in matters of public concern".

According to this the Government is duty bound to protect and control persons under disability.⁵⁰ The Supreme Court in Charan Lal Sahu v. Union of India⁵¹ hailed that the Bhopal Act of introducing this maxim is conceptually and jurisprudentially an advancement, an appropriate evaluation of the expression of sovereignty. From the 'standing' point of view it can be said to be a creative or innovative step where the interest of the victims is protected and represented by the state itself.⁵² It sought to create locus standi for the Central Government to file suits on behalf of the victims since they were under disability in pursuing claims.⁵³ Union of India has thus extended this doctrine for protecting the citizens of the country who are victims of a tragedy that occurred within the country because of the negligence of a multinational corporation.⁵⁴ The Supreme Court appreciated

50. In India the constitutional validity for this doctrine has been derived from the Preamble, Part IV and Part IV-A of the Constitution under Articles 38, 39 and 39A. They enjoin the State to take up these responsibilities.

51. A.I.R. 1990 S.C. 1480.

52. Id., p.1534.

53. According to Black's Law Dictionary, (5th ed.) 1979 p.1003 the word 'Parens Patriae' means literally 'Parent of the country' and refers traditionally to the role of the state as a sovereign and guardian of persons under legal disability. It had its roots in the common law concept of royal prerogative and includes the right or responsibility to take care persons who were legally unable, on account of mental incapacity.

54. Usually the doctrine is invoked to represent the victims outside the territories of the country.

the stand of the Union of India saying that it is a particular situation which calls for suitable effective machinery to articulate and effectuate the grievances and demands of the victims for which the conventional adversary system would be totally inadequate. There is no bar on the State to assume responsibilities analogous to parens patriae to discharge this state's obligation under the Constitution.⁵⁵

Thus the common law concept of royal prerogative⁵⁶ has been given a new colour and dimension in the welfare state doctrine making it the obligation of the state to assume such responsibility and protect its citizens. But this innovation lost all its flavour novelty in 1989 when Bhopal claims settlement was approved by the Court thus torpedoing its own creative contribution to a new social justice delivery system.

Once the standing is established and the litigation has been initiated the next task is adducing adequate evidence to establish the facts. As has already been mentioned, the nature of the process invites the key role and attention of the judges for evaluating the case from the environmental perspective. As far back in 1976 the role of a judge in

55. Supra.n.49

56. Supra.n.1 and A.I.R. 1990 S.C.1480.

public law litigation has been summed up in Harvard Law Review as follows:⁵⁷

"In PIL, the judge is the dominant figure in organising and guiding the case. It is fact evaluation rather than fact finding. It seeks to enjoin future or threatened action and is prospective."

Attention is drawn to the mischief existing or threatened and the court is directed to the development of on-going measures designed to cure that mischief. Moreover the liability determination is not simply a pronouncement of the legal consequences of past events, but to some extent a protection of what is likely to be in future. And in the decree the interests of the absentees is also to be considered. In order to attain the goal the judges often resort to outside help like masters, amici, experts, panels, advisory committees etc for information and evaluation of proposals for relief.⁵⁸

One can see that this device has been time and again made use of by the Supreme Court of India. The courts have the power under section 75 of Civil Procedure Code to appoint commissions for evaluating environmental issues.⁵⁹ High Courts often use this power in environmental cases.

57. Abram Chayel, "The Role of the Judge in the Public Law Litigation" 89 *Harv.L.R.* 1281(1976) at p.1284.

58. *Id.*, pp.1300,1301.

59. Code of Civil Procedure, 1908.

Commissions and Committees

The tactics generally followed by the Supreme Court in order to arrive at strong conclusions in PIL is the appointment of commissions and committees for evaluating environmental hazards. This power to appoint commission is an inherent power of the Supreme Court under Article 32 and High Courts under Article 226 of the Constitution.⁶⁰ There are various reasons that stimulate such a practice. Firstly, the nature of industrial activity may be such that for proper evaluation of the offence and its after effect, an expert opinion is essential since scientific and technological matters are involved. Secondly, any measure to control or prevent an industrial activity may detrimentally affect the right of many for whom it is a means of livelihood. Thirdly, a hinderance to industrial activity means a blockage in the development phenomena. Therefore, any decision taken should be done balancing the issues and correctly evaluating the immediate as well as future consequences from a sustainable approach.⁶¹

The device of appointing a committee was exercised for the first time in order to reconcile the industrial activity and ecological imbalance in the Dehradun case.⁶² The court

60. *Supra.n.4* at pp.816,817,845 and 849.

61. World Commission on Environment and Development, Our Common Future (1987), p.40.

62. Rural Litigation and Entitlement Kendra v. State of U.P., A.I.R. 1985 S.C. 652.

appointed an expert committee to evaluate the environmental impact of lime stone quarrying in the Doon Valley. The court did not show reluctance to appoint even a third committee to avoid any confusion wherever necessary.⁶³ In M.C.Mehta v. Union of India⁶⁴ the court considered the opinion of experts to evaluate the new principle of liability.

In this case the highest court justified the appointment of committees by saying:

"We have noticed that in the past years there is an increasing trend to the number of cases based on environmental pollution and ecological destruction coming up before the courts. Many such cases concerning the material basis of livelihood of millions of poor people are reaching this court by way of PIL. In most of these cases there is need for neutral scientific expertise as an essential input to inform judicial decision making. These cases require expertise at a higher level of scientific and technical sophistication. We felt the need for such expertise in this case and we had to appoint several committees to inform the court as to what measures were required to be adopted to safeguard against the hazard."⁶⁵

63. In Rural Litigation case the court appointed a high powered committee, the Bhandipadhyaya committee, when the Report submitted by the earlier two committees (Bhargava Committees Report and Working Group Committee Report) disagreed between them about the closure of mines coming under category B. Similarly in M.C.Mehta v. Union of India, A.I.R.1987 S.C.965 the court in order to reach a final decision considered the suggestion put forward by various committees.

64. A.I.R. 1987 S.C.965.

65. Id., p.981.

Functions of the Committees

The purpose of constituting a committee is for giving assistance to the courts. The committees thus constituted were entrusted different functions. An assessment of the committees appointed on different occasions shows that it is primarily to study the problems and submit a report on which the court rely for deciding the case in front of it. For that purpose the committee can inspect the location as well as consider the scientific aspect and ecological implication.⁶⁶ Thus the question whether the grant of mining leases in respect of lime-stones is in accordance with the relevant statutory provisions was probed into.⁶⁷ It will be at liberty to take assistance of experts in order to gather the necessary scientific and technological information and data so as to formulate its findings.⁶⁸

The committees are constituted sometimes for monitoring⁶⁹ the activities. In the case of limestone quarrying a Rehabilitation Committee was constituted. In M.C.Mehta v. Union of India⁷⁰ the court directed for the setting up of a high

66. Rural Litigation & Entitlement Kendra v. State of U.P., 1985 S.C. 652; L.K.Koolwal v. State, A.I.R.1988 Raj.1, Kinkri Devi v. State, A.I.R. 1988 H.P.4.

67. Kinkri Devi v. State, A.I.R. 1988 H.P.4.

68. Ibid.

69. Rural Litigation and Entitlement Kendra v. State of U.P., A.I.R. 1985 S.C.652; M.C.Mehta v. State of Orissa, A.I.R. 1992 Ori.225; M.C.Mehta v. Union of India, A.I.R. 1987 S.C. 982.

70. (1991) 2 Comp.L.J.226 at p.230.

powered committee to look into the problem of vehicular pollution in Delhi. A committee is sometimes to look after the pollution control measures adopted by the industry.⁷¹

The committee thus appointed suggest recommendations such as closure of an industrial establishment,⁷² relocation of the plant⁷³ or imposition of heavy fine for non-implementation of preventive measures.⁷⁴

Environmental Impact Assessment

In many of these cases the committees are to make an environmental impact assessment and the need for appointment of such committees is mainly due to the lack of statutory provision for impact assessment before starting developmental projects.⁷⁵ The committee is supposed to reach its conclusion on the basis of reasons backed by scientific data.⁷⁶

71. Id., p.228.

72. M.C.Mehta v. Union of India, (1990) (2) SCALE 609.
The committee of experts visited Kanpur and submitted the Report Categorising the tanneries on the basis of inspection into five.

73. Supra. n.64.

74. M.C.Mehta v. Union of India, A.I.R. 1990(2) SCALE 965.

75. Supra. n.67.

The Committee constituted was to examine the question whether the grant of mining leases in respect of limestones is in accordance with the relevant statutory provisions and whether the need of maintaining a proper balance between the tapping of the mineral resources for the development and industrial growth on the one hand and ecology environment etc. on the other hand has been kept in view while making such a grant.

76. Executive Engineer, Attappady Vally Project Agali v. Environment and Ecology Protection Samithi, A.I.R. 1997 Ker. 320.

Thus the courts felt the need for considering the expert opinion of committees when the PIL raised a question pertaining to development versus Ecology and Environment⁷⁷ or where it was to consider hazardous industrial activities.⁷⁸ Finally, the court felt it absolutely essential that there should be an independent centre with professionally competent and public spirited experts to provide the necessary scientific and technological assistance.

Directions under PIL

In most of the cases under PIL the court showed its enthusiasm to preserve the quality of environment by giving directions of diverging nature. It is a trend that had already been started in public nuisance cases brought before the court for protecting the environment.⁷⁹ Directions were given mostly to executive authorities to make use of devices for preventing pollution. The court felt that neither law nor funds alone can help in balancing the ionospheric disturbance until there is clear perception and imaginative planning.⁸⁰ It also requires sustained effort and result oriented strategic action.⁸¹ For that purpose the Supreme

77. Supra.n. 62.

78. Supra.n. 64.

79. For eg. in Ratlam's case the final order of the Supreme Court was in the form of directions to authorities concerned.

80. M.C.Mehta v. Union of India & Others, (1991) 2 Comp.L.J.226.

81. Ibid.

Court accommodated different devices such as laying down conditions⁸² and constituting bodies to look into the implementation processes.⁸³

The court felt the need for setting up of a high powered authority for overseeing the functioning of hazardous industries and evolving a national policy for location of chemical and other hazardous industries.⁸⁴ The need for green belt of one to five kilometers around such industries was proposed for the first time which the Government has implemented later on.⁸⁵ It directed the company to get their pollution tested and measured and publish the result.⁸⁶

Ganga pollution cases constitute an instance where the court issued directions after directions to prevent pollution of the sacred river Ganga caused by the tanneries.⁸⁷ In order to prevent industries from polluting the river Ganga indiscriminately, the court even directed that whenever appli-

82. M.C.Mehta v. Union of India, A.I.R. 1987 S.C.982.

The court formulated the following conditions:

1. An expert committee to monitor the operations and maintenance of the plant and equipment and ensure the continued implementation of the recommendations of the two committees.
2. Appointment of one operator for each safety device,
3. The Chief Inspector of Factories or any senior Inspector duly nominated by him to inspect the plant at least once in a week by paying surprise visit,
4. The Central Board also to depute a Senior Inspector to visit once in a week.
5. Personal responsibility to pay compensation,
6. A committee of workers to look after the arrangements in the caustic soda plant.

83. M.C.Mehta v. State of Orissa, A.I.R. 1992 Ori.225.

84. M.C.Mehta v. Union of India, A.I.R. 1987 S.C.965.

85. Ibid.

86. M.K.Sharma v. B.E.L. (1987) 3 S.C.C.231.

87. Supra n. 46

cations for licences to establish new industries are made in future. Such application shall be refused unless adequate provision has been made for the treatment of trade effluents flowing out of the factories.⁸⁸ In M.C.Mehta v. Union of India⁸⁹ and others the court directed Delhi Administration to furnish a complete list of prosecutions launched against heavy vehicles. Closure of industrial operations with immediate effect was ordered on several occasions.

It was even alleged that the attempts of the Pollution Control Boards to enforce the provisions of the Water Act are defeated and frustrated because whenever the Board initiates any proceedings to prosecute the industrialists or other persons who pollute the water in the river Ganga, the persons accused of the offences immediately institute petitions under section 482 of Criminal Procedure Code, 1973 in the High Court and obtain stay orders. The Supreme Court did not hesitate to order that High Courts should not ordinarily grant orders of stay in such cases.⁹¹

In yet another case the court issued directions to exhibit slides on environment free of cost by cinema exhibitors, to spread information relating to environment through media and to make environment a compulsory subject

88. Id., p.1127

89. M.C.Mehta v. Union of India and Others 1991 (2) SCALE p.427.

90. M.C.Mehta v. Union of India, 1992(1) SCALE p.220.
Rural Litigation and Entitlement Kendra v. State of U.P.,
 A.I.R. 1985 S.C. 652; M.C.Mehta v. Union of India, 1995
 Supp (1) S.C.C.434.

91. Supra. n.88.

in schools and colleges.⁹²

Thus directions were issued on different occasions to administrative authorities like Municipalities,⁹³ Pollution Control Boards,⁹⁴ Delhi Administration and even the Ministry of Environment.⁹⁵ In most of these cases court preferred to have a continuous watch over the future actions and the role of judiciary seems to have exceeded its limits from adjudicatory to administrative.

Professor Upendra Baxi described this gradual judicial take over of the directions of administration in a particular arena from executive as "creeping jurisdiction."⁹⁶ At the same time it is noteworthy that Supreme Court's directions enabled the Executive and Legislature to have a critical analysis of the pollution problems and gradually incorporate these provisions in the environmental legislation.

The need for balancing environment and development, the court felt essential and insisted that spirit of confrontation must be replaced by the spirit of cooperation in the larger interests of the community.

92. M.C.Mehta v. Union of India, 1991(2) SCALE p. 1181.

93. Supra.n.5.

94. Supra.n.87.

95. Supra.n. 94.

96. U.Baxi, Taking suffering seriously: Social Action Litigation in the Supreme Court of India, 29 The Review International Commission of Jurists, 37,42(December 1982) as given in Rosencranz et.al., op.cit.p.130.

Thus using the weapon of PIL by liberalising locus standi and seeking assistance from commissions and committees, the Supreme Court and High Courts invoked the jurisdiction under Article 32 and 226 of the Constitution and issued directions to the administrative agencies. This judicial activism has eventually laid down new principles in environmental jurisprudence such as 'right to clean environment' 'freedom of information' 'absolute liability' and 'right to compensation'

Right to clean environment

In the eighties judicial activism went a long way. This resulted in finding that the right to a clean environment is a fundamental right. The spark lit by Justice Krishna Iyer in Ratlam's case⁹⁷ was time and again fanned by the apex courts that the concept of right to environment grown to be a beacon light today. The Universal Declaration of Human Rights⁹⁸ generalising the idea that all have the right to live in a healthy and clean environment was accepted in this evolutionary process through case law. The corresponding duty is cast on the state authorities and fellow beings not to deny this right to a citizen. A mutual right duty relationship is to be maintained among and between everyone, which ultimately results

97. Supra. n.7. He raised objection that industries cannot make profit at the expense of public health. This section read with the punitive temper of section 188 I.P.C.

98. In 1984, the UN adopted a Resolution, "All human beings have the fundamental right to an environment adequate for their health and well being".

in the preservation of environment from the hazards of pollution. Practically, it requires positive as well as negative steps. That is, preserving the quality environment requires prevention of pollution and promotion of conservation of natural resources. The significance of industries in protecting the right to environment is great from both these angles. This is so because industries are basically dependent on natural resources thereby affecting conservation. They also are engaged in activities causing pollution.

The crux of case law proves that judicial task was to harmoniously construct the idea of the right to environment in the face of growing industrial development for the benefit of the well being of the people. The court was at the problem and interpret the law from the angle of sustainable development.⁹⁹ Obviously, the concept of right to environment has its roots in the social justice principle.

At the global level, the right to live is now recognised as including in it the right to an environment conducive to health and well being.¹⁰⁰ The constitutional recognition of this right became easy since the courts had already interpreted

99. See for details on sustainable development, supra. chapter 2 pp. 38-42.

100. World Commission on Environment and development, Our Common Future, (Oxford, 1987) Annexe p.348.

the right of the people to live in comfort and peace under the nuisance cases as sacred.¹⁰¹

In line with these decided cases it became not a difficult task for the Supreme Court to read into 'the right to life' the right to clean environment. The result is farreaching. The judicial recognition found out in an important basic right not articulated that was implied by at the time of making the constitution for environmental problems were less in number so as to attract the attention of the founding father. Just as was done in democracies where rule of law is being respected, the Indian Supreme Court by its ingenuous juridical technique interpreted the right to life in Article 21 in such a manner so as to the right to a clean and healthy environment. The era of judicial activism of widening substantive due process in Article 21 started from the Maneka Gandhi case.¹⁰²

The first indication of the right to a wholesome environment may be traced to the Dehradun Quarrying case in which the Supreme Court viewed the restriction on the licensed mining operation as the price to be paid for protection of the right of the people to life in healthy environment.¹⁰³ In fact

101. Under the Common Law the courts have already established the right of anyone to live, work and sleep in a environmentally sound atmosphere as a basic or fundamental right. See supra. chapter 6.

102. A.I.R. 1979 S.C.597. "The right to life or personal freedom can be restricted only in a fair, just and reasonable manner".

103. Supra.n.5.

mere admission of a PIL petition claiming environmental protection under Article 32 of the Constitution is the court's recognition of the right to environments as a fundamental right. However, the highest court was reluctant to explicitly articulate the same in the beginning.¹⁰⁴ Neither in Doon Valley case nor in Mehta case the court has held directly that the right to environment is contained in the constitutional right to life. The anxiety with which the courts were issuing directions with a view to protecting the lives of the people, their health and ecology denotes nothing but the obvious judicial recognition of such right.¹⁰⁵ Moreover, in both these cases the Supreme Court had to weigh the fundamental right to environment against the fundamental right to work.

The Supreme Court's enthusiasm to preserve the quality of environment encouraged the High Courts to go ahead with the task by clearly recognising the right to a clean environment.¹⁰⁶ They were more articulate in openly recognising the right to clean and healthy environment.¹⁰⁷ Thus Andhra Pradesh High Court observed that it would be reasonable to hold the enjoyment of life and its attainment of fulfilment as guaranteed by Article 21. It embraces the protection and preservation of

104. Ibid., See also Supra.n. 62

105. P.Leelakrishnan, "Courts and Environment Protection" in Environmental Hazards in Kerala, (1992) p.79.

106. In the case of Damodar Rao v. The Special Officer, Municipal Corporation of Hyderabad, A.I.R.1987 A.P.171 at p.181. The court pointed out that the Supreme Court had entertained environmental issues under Article 32 in Rural Litigation cases since it was violative of Art.21.

107. Shyam A.Diwan, "Constitution and Environment", (1990) C.U.L.R. 87 at p. 92-93.

nature's gift without which life cannot be enjoyed.¹⁰⁸

The Karnataka High Court¹⁰⁹ has gone far ahead when it categorically said that where, on account of human agencies, the quality of air and quality of environment are threatened or affected the court would not hesitate to use its innovative power within its epistolary jurisdiction to enforce and safeguard the right to life to promote public interest. The court also acknowledged the foundation of juristic activism laid by the Supreme Court.¹¹⁰

The High Court of Kerala has gone still far ahead showing its eagerness to articulate the right to life concept in a case brought under section 133 Code of Criminal Procedure.¹¹¹ The sanctity of right to life is more than immunity from extinction of life.¹¹² It guarantees life in its many splendoured facets, emotional spiritual and aesthetic. The court listed talent, thought process, human personality and expression of these as complements of life.¹¹³ The court recognised Article 21 as the needle of the balance wherein the competing claims for preservation of ecology and exploitation of natural resources have to be balanced.¹¹⁴

108. *Supra.* n. 106.

109. V.Lakshmi pathy v. State, A.I.R. 1992 Kar.57.

110. *Id.*, p.70.

111. Madhavi v.Thilakan, 1989 Cri.L.J. 499.

112. Mathew Lukose and Others v. Kerala State Pollution Control Board and Others, 1990 (2) K.L.J. p.717

113. *Ibid.*

114. Environmental and Ecological Protection Samithy v. Executive Engineer, 1991 (2) K.L.T. 493 at p.495.

The court explicitly recognised the right to a healthy environment as part of the multifaceted Article 21. The right to sweet water and free air are the attributes of the right to life for these are the basic elements which sustain life itself.¹¹⁵

Thus the idea articulated is that the right to life comprehends, inter alia, right to environment and right to health care.¹¹⁶

The Supreme Court's opinion on this matter was not clear till the court in Chhetriya Pardushan Mukti Sangharsh Samiti v. State of U.P.,¹¹⁷ observed that every citizen has a fundamental right to have the enjoyment of quality of life and living as contemplated by Article 21 of the Constitution. The court explicitly endorsed that Article 32 can be invoked for a redressal when the quality of life and living is endangered or impaired.

115. Attakoya Thangal v. Union of India, 1990 K.L.T. 580 at p.583.

116. See Sachidanand Pandey v. State of West Bengal, A.I.R.1987 S.C.1109; Vincent Panikulangara v. Union of India, A.I.R.1987 S.C.990; Vikram Deo Singh Tamar v. State of Bihar, A.I.R.1988 S.C.1782; M.C.Mehta v. Union of India, A.I.R.1987 S.C.982.

117. (1990) 4 S.C.C. 449. Facts:

In this case a letter written to the court by Chhetriya Pardushan Mukti Sangharsh Samiti was treated as a writ petition under Article 32. It was alleged that the smoke and dust emitted from the Chimneys of the Mills and the effluents discharged from the plants were causing pollution in the thickly populated and were proving a great health hazard.

Again in *Subhash Kumar v. State of Bihar*¹¹⁸ the court observed that right to live is fundamental right under Article 21 and it includes the right of enjoyment of pollution free water and air for full enjoyment of life.¹¹⁹ Coming to the issue of workers right to life for healthy working conditions, Supreme Court held that right to health, medical care to protect the health and vigour of a worker while in service or post retirement is a fundamental right under Article 21 read with Articles 39(e) 41, 43, 48A and all related articles and fundamental human rights to make the life of the workman meaningful and purposeful with dignity of person.¹²⁰

It is noteworthy that in many of these cases the courts have relied much on the U.N. Declaration of Human Rights 1948 to emphasize the right to wholesome air.¹²¹ By the time *M.S.Mehta* approached the Supreme Court in 1992 to raise his voice against pollution of air, water and land creating health hazard for residents of the area concerned due to industrial development an urban contiguous territory of Delhi¹²²

118. (1991) 1 Comp.L.J.209 (SC).

119. *Id.*, p.103.

120. *Supra*.n.2 at p.940.

121. For e.g. *Environmental and Ecological Protection Samithy v. Executive Engineer*, 1991 (2) K.L.T. p.493; *Mathew Lukose and Others v. Kerala State Pollution Control Board and Others*, 1990 (2) K.L.J. 717.

122. *M.C.Mehta v. Union of India*, 1992 (1) SCALE p.220.

the right to environment has already been a part of the right to life under Article 21 of the Constitution.

The court held that environment cannot be permitted to be damaged by polluting the air, water and land for industrial development.¹²³ The court's direction to close those industries that fail to take necessary steps for preventing pollution in the riparian area of river Ganges after giving general notice in the newspapers substantiates the court dictum beyond any doubt.¹²⁴

Right to work v. Right to clean environment

Industrial activities need the immediate and inevitable involvement of workers. Therefore, a judicial direction for the closure of a polluting industry detrimentally affect the right to work of many others thereby affecting their right to livelihood. Judiciary having already laid down the precedent of treating 'the right to livelihood' as part of the constitutional 'right to life'¹²⁵ eradication of industrial pollution brought the two interests into conflict. In most of

123. Ibid.

124. M.C.Mehta v. Union of India and Others, 1993 Supp (1) S.C.C. p.434. In this case M.C.Mehta brought to the notice of court the continuing pollution of river Ganges caused by discharge of trade effluents by riparian industries (other than tanneries, distilleries and Municipal Board). The court had directed those industries in the riparian areas of river Ganges as early as in 1985 to stop discharge of untreated effluents. General notices were published for the same and on January 16, 1991 Ministry of Environment and Forest issued a notification requiring the industries to comply with the standards.

125. Olga Tellis v. Bombay Municipal Corporation, A.I.R.1986 S.C.1980.

these cases the dilemma, i.e. right to work v. right to environment, was a seminal question that the highest court had to answer. The court categorically evolved the principle that right to have wholesome environment free from pollution is of paramount priority to the right to livelihood of workers.¹²⁶

In the Ganga Pollution case¹²⁷ the court compared a polluting industry to that of one which cannot pay minimum wages to its workers and held that pollution caused by such industries discharging the trade effluents outweigh any inconvenience that may be caused to the management and the labourers on account of its closure.¹²⁸ At the same time the court took into serious consideration the plight of those workers and entrusted the Government to provide them employment in the afforestation and social conservation programme to be taken up in the area.¹²⁹ The present position is that the court orders closure of industry without even primarily considering the workers right to work.¹³⁰ Thus in Ganga Pollution(Tanneries case)¹³¹ the court justified the closure of polluting tanneries

126. Supra.n.84. The court took into consideration the interest of about 4000 workmen.

127. M.C.Mehta v. Union of India, A.I.R.1988 S.C.1037

128. Id., p.1045.

129. Supra.n.62.

130. M.C.Mehta v. Union of India and others, 1994 Supp (1) S.C.C. p.434.

131. Supra.n.127 at p.1048.

and says:

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

Apart from this, the right to carry on business or trade is restricted. The question is whether such a regulation is violative of fundamental rights to trade imposing unreasonable restriction. In Aggrawal Textile Industries v. State of Rajasthan¹³² the argument raised was that the prohibition contained in the pollution control law would result in complete closure of the business of the petitioners and that would be an unreasonable restriction to carry on their trade and business. The court observed that an individual while exercising his right to carry on his trade or business is not free to pollute the source of supply of water to other citizens and thereby cause harm to the interest of the general public. The right to trade is not absolute.¹³³ A rule which prohibits carrying of a dangerous and offensive trade only beyond a prohibited distance has the support of constitutional reasonableness.¹³⁴

132. S.B.C.Writ Petition No.1375/80 March 2, 1981 as given in Rosencranz, et.al., (Eds) p.160.

133. 1987 K.L.T. 830.

134. Ibrahimkutty v. State of Kerala, 1986 K.L.T. 830.

The Supreme Court reiterated the same view when it ordered the polluting tanneries to stop functioning.¹³⁵ The court also condemned that notwithstanding the comprehensive provisions contained in the Act, no effective steps appear to have been taken by the State Boards to prevent the discharge of effluents into river Gange.¹³⁶

In Abhilash Textile and Others v. The Raykot Municipal Corporation¹³⁷ the question raised was the same but under Bombay

135. Supra, n. 126

136. Id., p. 1048

137. A.I.R. 1988 Guj. 57.

Provincial Municipal Corporation Act.¹³⁸ The petitioners challenged the notice served by the Municipal Commissioner as business and trade. Placing reliance on the celebrated Maneka Gandhi's¹³⁹ case the court said that there is a duty to give reasonable opportunity to be heard before taking an action which effects the rights of individual.

The Supreme Court observed that the right to be heard will be available to them only if they can show that they have a right to carry on the business even in the manner causing nuisance. No one has a right to trade in the manner in which it becomes a health hazard to the entire society. The fundamental right to trade or business is subject to reasonable restrictions and regulations that may be placed in the interest of the general public.

In Bhaqwan Dass v. Municipal Corporation of Delhi¹⁴⁰ the Delhi High Court extended the restriction to such an extent that no person can claim licence or a permit to do an act as of right. Imposition of a restriction on the exercise of a fundamental right may be in the form of a control or prohibition

138. Act.No.59 of 1949.

139. Supra.n.102

140. A.I.R. 1995 Del.17.

Absolute Liability

Recognising the need to evolve new principles and lay down new norms which would adequately deal with the new problems likely to arise in a highly industrialised economy, the Supreme Court evolved the cardinal principle of absolute liability of an enterprise engaged in a hazardous or inherently dangerous activity.¹⁴¹

The point was already adverted to in a previous chapter.¹⁴² The enthusiasm shown by the court to throw away the crutches of a foreign legal order is justified by saying:

"It is not necessary for us to consider those decisions laying down the parameters of this rule because in a modern industrial society with a highly developed scientific knowledge and technology where hazardous or inherently dangerous industries are necessary to carry a part of the development programme".¹⁴³

The nature of industrial pollution is such that for the victim of pollution it would not be an easy task to isolate the cause of action and prove the same.¹⁴⁴

141. Supra.n.31.

142. See supra. ch.2 pp.37-46

143. Supra.n.131 at p.1098.

144. I., p.1099.

This is an undisputed dictum today and is extended to all activities irrespective of hazardous nature.¹⁴⁵ The law today is that no one can be permitted to pollute the atmosphere of an area by letting out offensive material from his premises.¹⁴⁶ In Charan Lal Sahu v. Union of India¹⁴⁷ Supreme Court projected the need for a law on the subject acknowledging the hazardous nature of industrial activities.

Right to compensation

It is corollary to the principle of absolute liability that Supreme Court thoroughly evaluated the scope of Article 32 and concluded that under that Article the Supreme Court may award compensation in appropriate cases.¹⁴⁸ The power of the Supreme Court under this Article is vast. It gives not only preventing remedies i.e. preventing infringement of a fundamental right, but also protective remedies such as providing relief against a breach of the fundamental right already committed.¹⁴⁹ The power of the court to grant such remedial relief may include the power to award compensation provided the infringement of the fundamental right is gross and patent affecting large number of persons. It should appear

145. Ajay Constructions v. Kakateeya Nagar Co-operative Housing Society Ltd., A.I.R.1991 A.P.305. It is a case in which the construction workers failed to comply the conditions laid down by HUDA under section 13 and 15 of the A.P.Urban Areas(Development) Act, 1975 which resulted in pollution in the Residential area.

146. Ibid.

147. Charan Lal Sahu v. Union of India, A.I.R.1990 S.C.1480

148. Supra.n.13.

149. Id., p.1091.

unjust or unduly harsh or oppressive on account of their poverty, disability or socially and economically disadvantaged position to require them to initiate and pursue action in the civil courts. The court stressed that it is only in exceptional cases that compensation may be awarded in a petition under Article 32¹⁵⁰ and the measure of compensation must be correlated to the magnitude and capacity of the enterprise for making it more deterrent in nature.¹⁵¹ While dealing with employer's vicarious liability to pay damages in case of occupational disease Supreme Court said that in public law claim for compensation is a remedy available under Article 32 or 226 for the enforcement and protection of fundamental and human rights. It is described as a constitutional remedy.¹⁵²

Supreme Court followed the same when the court took initiative for awarding interim compensation to the victims of Bhopal Gas tragedy in the February settlement, 1989.¹⁵³

Judicial activism on the subject paved the way for legislating on the subject and enacted Public Liability Insurance

150. Ibid.

151. Id., p.1099.

152. Supra. n.1 p.941.

153. Union Carbide v. Union of India, (1991) 4 S.C.C.584. Misra, C.J. stated "...there is no reason why we should hesitate to evolve such principles of liability".

Act, 1991.¹⁵⁴ In the course of judicial pronouncements the higher courts formulated judicial opinion on several other rights as well, such as freedom of information, role of social action groups etc.

In a democratic polity the right to know is essential because public access to governmental information enables citizens to exercise their political choice meaningfully. This right envisages government accountability and a citizen's ability to secure authentic information.¹⁵⁵ The Supreme Court has derived this right to know from the fundamental right to freedom of speech and expression and fundamental right to life and personal liberty.¹⁵⁶ Judicial recognition of this right as emanating from the right to life strengthened a citizen's access to official environmental information significantly.¹⁵⁷ The court considered this right to be essential for the proper functioning of real democracy which has to be worked from below by the people of every

154. Act No.5 of 1991, for the text see 1991 C.C.L. Part II p.45. Also see supra.ch.4. pp.49-54.

155. Armin Rozencranz, Environmental Law and Policy in India (1992). p.143

156. Id., p.143. Right to freedom of speech and expression- Article 19 (1) (a).
Right to life and personal liberty - Article 21
State of U.P. v. Raj Narain, A.I.R. 1975 S.C.865 is the first to recognise the citizen's right to know.
Justice Bhagwati in S.P.Gupta v. Union of India, A.I.R. 1980 S.C. recognised the right to be implicit in the right to free speech and expression.

157. Reliance petrochemicals Ltd. v. Proprietors of Indian Express News Papers Bombay Pvt.Ltd., A.I.R. 1989 S.C.202.

village and town.¹⁵⁸ The court thus transformed a judicial rhetoric into a substantive, enforceable right.¹⁵⁹ It also felt that in a democratic polity dissemination of information is the foundation of the system.¹⁶⁰

In L.K.Koolwal v. State¹⁶¹ it was held that the right to know derives from the constitutional duty enshrined in Article 51 A. The court, therefore directed the Central Government to provide appropriate slide material on various aspects of environment and pollution for exhibition to spread information reflecting environment through media.¹⁶² The court did not restrict this right to individual citizens alone but the extended the same to social action groups.¹⁶³

Speaking about the role of Social Action Groups the court observed that they help in checking sabotage of development plans by unscrupulous persons and corruption at all levels.¹⁶⁴ The role of social action groups being an already established fact¹⁶⁵ extension of the same to environmental

158. Bombay Environmental Action Group v. Pune Cantonment Board, Bombay H.C.A.S.Writ Petition No.2733 of 1986, as given in supra. n.145 at p.144.

159. Ibid.

160. Ibid.

161. A.I.R. 1988 Raj.2.

162. M.C.Mehta v. Union of India, 1991 (2) SCALE p.1181.

163. Bombay Environmental Action Group v. Pune Cantonment Board, S.C.SLP (CIVIL) No.11291 of 1986 as given in supra. n.145 at p.149.

164. Supra. n.161

165.

Neeraja Chaudhary v. State of M.P., A.I.R. 1984 S.C.1099.

issues was not much disputed. It is a part of public participation and assumes importance in environmental matters.¹⁶⁶ In D.D.Vyas v. Ghaziabad Development Authority¹⁶⁷ the High Court stressed the right of environmental activist and extended the right to Article 226 as well saying that no town is known for slay-scrappers, for myriad industries, for big commercial centres, for big monumental building, but for the attractive layout of the town, for good landscapes, for beautiful parks and lawns, for expansive vertant cover and for perfect social ecology.¹⁶⁸

The battle for a clean and healthy environment is made more productive by judicial activism which provides circumstances in which ordinary citizens felt access to the decision making process.¹⁶⁹ The fact that environmental issues contain social, economic, legal and scientific question and can be resolved neither by purely technical mechanism nor by purely legal analysis¹⁷⁰ attract the interference of a forum that can harmoniously reconcile the issues. Judiciary could to a great extent help in answering those environmental issues approaching

166. By Shayan Chaimani, "Bombay Environment Action Group" in J.Bandhyopadhyay (Ed), India's Crises, and Responses (1982) p.234 at 235. Because technical advice of government departments or expert agencies get over-ruled at a political level for political motives, environmental action groups can take the matter up in the press and other forums including the legislative forum for decision-making in tune with the people's interest. For eg. Thal Vaishet Fertilizer Plant, Silent Valley Project etc.

167. 1993 All.L.J. p.86 at p.91.

168. Id., p.90.

169. Joseph L.Sax, Defending the Environment: A Strategy o for citizen Action (1971) p.231 in "The Public Trust Doctrine in National Resource Law:Effective Judicial Intervention", 68 Mich.L.Rev.471 (1969-70)

170. Joel Yellin, "High Technology and the Courts:Nuclear Power and the Need for Institutional Reform", V.94, Harv.L.Rev.489 at p.491.

it from divergent dimensions. Thus it can be seen that judicial painstaking to juxtapose environmental protection with different basic concepts and evaluate the same resulted in the emergence of a new jurisprudence of environmental law.

But a critical appraisal of the judicial activism shows that there are instances that can be listed in opportunities lost to the highest court. They are of two types.

- 1) Where the court failed to formulate clearly the dimension of the right to environment or to follow the established principles.
- 2) Where the court was faced with environment - development dilemma.

In Dehradun Quarrying Case¹⁷¹ the court examined thoroughly the issue 'Ecology v. Development' and left the case without deciding whether there is a fundamental right to environment. In the Shriram Fertilizers' case,¹⁷² the court, without deciding the preliminary question as to the maintainability of a petition under Article 32 against a non-state agency, has examined the scope of Article 32 to evolve the basic concepts of absolute liability and compensation.

171. Supra. n.5.

172. Supra. n.13)

On the one hand the court formulated the dictum of absolute liability acknowledging the potential threat to health and safety of the workers and residents nearby thus admitting the extension of Article 21 and on the other hand tried to evade the question whether Shriram Fertilizers came within the ambit of Article 12 to be amenable to the discipline of Article 21.

At last the court directed the Delhi Legal Aid and Advice Board to take up the cover of all those who claimed to have suffered on account of Oleum Gas Leakage.¹⁷³ It asked Delhi Administration to provide funds to the Boards for the purpose of filing and prosecuting such action.¹⁷⁴ It also directed the High Court of Delhi to nominate one or more judges for trying such cases expeditiously.

Environment v. Development

The Supreme Court on several occasions had to weigh and reconcile these conflicting interests. In the case of Rural Litigation the ecological imbalance likely to result from indiscriminate mining operations was raised.¹⁷⁵ Though the case is a clear evidence of judicial activism one may doubt, the court's blank cheque to the Government to arrive at whether or not exploits would cost ecology imbalance blunted the weapon of judicial review. The delay in deciding the case is not

173. Supra. n.133 at p.1100.

174. Ibid.

175. Supra. n.5.

justified on this ground. Though the argument that 'courts appoint commissions to find the true nature of the problems and direct government agencies to take into account the criteria highlighted by the commission and make environmentally sound decisions'¹⁷⁶ is admissible, it is a clear admission of the incapacity of the traditional courts to examine supertechnical environmental issues.

The judicial attempt to harmoniously construct the two concepts 'environment' and 'development' is to be noticed in the case of M.C.Mehta v. Union of India¹⁷⁷ with the court said;

"When science and technology are increasingly employed in producing goods and services calculated to improve the quality of life, there is a certain element of hazard or risk inherent in the very use of science and technology and it is not possible to totally eliminate such hazard or risk altogether. It is not possible to adopt a policy of not having any chemical or other hazardous industries merely because they pose hazard

176. P.Leelakrishnan, "Courts and Environmental Protection" in Environmental Hazards in Kerala, op.cit., p. 79

177. A.I.R. 1987 S.C. 965.

or risk to the community. If such a policy were adopted, it would mean the end of all progress and development. Such industries even if hazardous have to be set up since they are essential for economic development and advancement of well-being of the people".

There, the court justified the need for evolving new principles to adequately deal with the new problems arising in a highly industrialised economy.

Court's attitude towards environmental matters seems to be inconsistent if we examine the case law. An inclination towards development even at the cost of environment to some extent can be noticed in those environmental issues dealing with big projects.¹⁷⁸ In the Goa Foundation case Bombay High Court explicitly expressed this attitude when it held that 'the destruction caused to the environment was not material vis-a-vis the benefits derived from the project.'¹⁷⁹ The case proves beyond doubt that the court missed a chance to champion the cause of environment.¹⁸⁰

178. Goa Foundation v. Konkan Railway Corporation, A.I.R. 1982 Bom. 472; Tehri Bandh Virodhi Sangarsh Samiti v. State of U.P. (1990) 4 S.C.519; Sachidanand Pandey v. State of West Bengal, A.I.R. 1987 S.C.1109; Silent Valley Case

179. Goa Foundation v. Konkan Railway Corporation, A.I.R. 1982 Bom.472.

180. V.R.Jayadevan, "Sustainable Development: Some reflections on the Goa Foundation Case", [1993] C.U.L.R. 107.

Bombay High Court's hands off policy is again clear in another case. It observed,

"The indepth analysis, the conditions imposed and the precautions taken inspire court's confidence and if at the end of all, the court finds that a very conscious decision has been taken in the light of all possible pros and cons, it would then not interfere.¹⁸¹

The Supreme Court preferred to follow the same principle in Tehri Bandh Virodhi Sangarsh Samiti and Others v. State of U.P.¹⁸². The courts reluctance to interfere as in the case of Silent Valley Project case¹⁸³ is still an example of lost chance or of incompetence in scrutinizing environmental problems.

181. Bombay Environment Action Group and Another v. State of Maharashtra and Others, A.I.R. 1991 Bom.301.

182. (1991) 2 Comp.L.J. 231 (SC).

183. Society for Protection of Silent Valley v. Union of India, O.P.Nos. 2949 and 3025 of 1979.

Again, Supreme Court came out with directions to close down or shift a number of polluting in Delhi,¹⁸⁴ and Tamil Nadu.¹⁸⁵ In Tamil Nadu 299 industries were given time till 31st December 1995 to complete effluent treatment plant while 166 Tanneries under list II were directed to close with immediate effect.

In the case of India Council for Enviro-Legal Action v. Union of India,¹⁸⁶ Supreme Court stressed the need for environmental courts and also directed to consider the idea of an environmental audit by special bodies having power to inspect check and take necessary actions not only against erring industries but also against erring officers. It is a case where the court decided for the first time the hazard of indiscriminate dumping of waste in our country.

184. M.C.Mehta v. Union of India, 1994 (4) SCALE in Delhi. Thus in Delhi factories including Hindustan Lays is directed to shift their location to places on outskirts of the city.

185. Vellore Citizens Welfare Forum v. Union of India, and Others (Kuldip Singh and Saghir Ahmad, C.J.) 1995 (5) SCALE, 224.

186. A.I.R. 1996 S.C. 1446 at 1468.

CHAPTER VIII

JUDICIAL ACTIVISM UNDER ENVIRONMENTAL LEGISLATION: THE NEED FOR ENVIRONMENTAL COURTS

Judicial activism under environmental legislation though diverse is least. It touches the corners of both legislation enacted specifically for environmental protection and those covering environmental matters incidently. The jurisdiction enjoyed by the courts under these enactments is apart from the parallel to the writ jurisdiction and common law remedies. One can see that issues like indiscriminate granting of lease without evaluating environmental harm by local administrative authorities was disputed in the courts. Interestingly enough, Ratlam's case¹ though brought to the court as a public nuisance case, discusses in detail the obligations of municipal authorities under the Municipal legislation.² The apex court vehemently criticised the attitude of municipal authorities and failure on their part to perform those obligations.³

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1. Municipal Council, Ratlam v. Vardhichand, A.I.R. 1980 S.C. 1622. See for details supra. Chapter 6 pp.
 2. Madhyapradesh Municipalities Act, 1971, Section 123.
 3. Supra. n.1 at p.1628.

Thus there are a few instances where the provisions under local bodies legislation, Factories Act, Rice Milling Act and Insecticides Act were assessed and evaluated from the angle of environmental hazards. At the same time, it is noteworthy that courts did not seem to have made any innovative interpretation of statutes from the environmental perspective. For example in the case of Fr. Skariah v. Thaluk Panchayat Officer,⁴ the cause of action was nuisance in the residential area. Activities in the factory resulted in sound pollution caused by vibration as well as pollution by dust. The court did not stress the pollution aspect resulting in health hazard but merely adhered to the word by word provisions of the impugned Act and rejected the jurisdiction of District Medical Authorities in directing to cancel the licence granted under the local Bodies Law.⁵ The court did not even try to construct harmoniously the different Rules.⁶ The court regarded pre-licence permission from the medical authorities requisite for the construction of the factory as a mere formality which can be overridden by the local bodies authorities. Who are the experts? The Medical authorities or the local authorities? Pollution likely to be caused is a criterion for siting the factory. Eliminating the jurisdiction of medical authorities, once the

4. 1991 (2) K.L.T. 239.

5. Panchayat Licensing of Dangerous and Offence Trades and Factories Rules, 1963. Under Rule 25 cancellation of licence falls within the jurisdiction of Executive Authority whereas under Rule 12(4)(b) the Panchayat is required to consult and have due regard to the opinion of the D.M.O. of health.

6. Id., Rule 12(4)(b).

factory is constructed, even if the factory caused health hazards in the locality is to narrowly construct the purpose of such a requirement. The court thus failed to evaluate the requirement in the Rules for due regard to the medical authorities. This is another instance of missing the opportunity to look at the problems from an environment view point especially when neither the court nor the defendants deny the existence of pollution caused by the factory. At the same time, the court could trace well the relevant provision in another statute that enable Medical Authorities to act under such a situation.⁷ But the court did not proceed. The court's direction to the aggrieved parties to approach the statutory authority for appropriate relief though justifiable, its reluctance to rise to the occasion and to widely interpret earlier legislation from environmental perspective pinpoints the recession of judicial activism in such cases and the need for amending the provisions. In the case of Ibrahimkutty v. State of Kerala,⁸ a case brought under the same local bodies law the court again wanted to make literal interpretation and deemed remedy.⁹

7. The Travancore-Cochin Public Health Act, 1955. Chapter VI of this Act deals with abatement of nuisance and Section 47 states that if the local authority or its health officers makes default in doing its or his duty under this Act in regard to the abatement or prevention of nuisance, the Government may authorise any of this officers to perform such duty.

8. 1986 K.L.T. 830.

9. Id., p.832.

Navin Chemicals Manufacturing and Trading Co.Ltd. v. New Okla Industries¹⁰ is yet another instance where the Allahabad Court could have attempted to weigh the industrial policy in environment friendly manner. In this case Okla Industrial Development Authority allotted plots for industrial purposes, one for manufacture of sophisticated sensitive life saving drugs and another for the grinding of stones into powder which naturally cause air pollution adversely affected the products of petitioners life saving drugs. The court's contention that the legislation concerned did not have anything to do with pollution.¹¹ is astonishing. Mark that the case had come before the court in 1987 when the tide of judicial activism had already reached high-water mark. The court instead of trying to examine the way how the pollution already being caused could be prevented and controlled washed its hands off and entrusted the pollution control board, which had already failed to control the mishap, to examine and to take appropriate *measures*. The court then simply closed its eyes on the disaster and withdrew to its own shell of judicial restraintivism in a case when the policy of industrialisation could have been interpreted to be environmentally designed and steps taken to remove pollution.

10. 1987 All.L.J. 13.

11. Id., p. 17

To say that authority constituted for industrial development is to achieve development is one thing. But to say that this authority need not consider pollution problems while it permits industrial activities is least justified. Again to say that it is the duty of another body constituted under a different Act to control pollution and to put the responsibility on that body to review the harm is not a welcome judicial responsibility in a case where the question of siting industries was the main issue.¹² At a juncture when all are talking about sustainable development and interdisciplinary efforts to achieve the same at global level, the attitude of the court to compartmentalize the legislation as well as authorities constituted looks odd. In cases like this, if the authorities are vigilant while permitting industrial activities, the later difficulties to prevent and control pollution can be avoided to a great extent.

Court's strict adherence to literal interpretation seemed to prevent sometimes the use of those provisions under the general laws having a bearing on environment from an environmental perspective.¹³ It took quite sometime for Allahabad High Court to evaluate a provision having relevance in protection of environment so as to conclude that disposal of waste effluents is a mandatory duty attracting liability on failure to comply with

12. Id., p.16 The court, in order to establish the point, relied on the case of Nazir Ahmed v. King Emperor, A.I.R. 1936 P.C. 253 where Lord Roche held that where a power is given to do a certain thing in a certain way, the thing must be done in that way or not at all.

13. For details of those general laws see supra. chapter 5,

it.¹⁴ But, in Jagannath Sharma and Others v. State of U.P.¹⁵ the court failed to rightly assess the provision when it opined that Factories Rules do not contain a provision to deal with a case of disapproval of an application.

Again in K.L.Vij v. The State of U.P.¹⁶ the court reiterated the same by saying that R.18 does not mention anything in case of disapproval of a plan by the Board and therefore, if the factory functioned after disapproval of the plan, it cannot be held to have violated the provision of the Act to be guilty.

But, later in Narendra Lal v. State of U.P.¹⁷ the High Court recognised section 12 (1) of the Factories Act, requiring effective arrangements for the disposal of waste effluents, as a mandatory provision and therefore obligatory on the part of the factory to comply with and make effective arrangements for the discharge of effluents. It is liable to be prosecuted for breach of a mandatory provision read with section 92 of the Act and the liability exists irrespective of the approval or disapproval by the Board.

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14. Under the Factories Act, 1948, Section 12(1) requires that effective arrangements shall be made in every factory for the disposal of effluence. It is a mandatory provision which when supported by Factories Rules, 1950 will be a powerful weapon against polluters.
15. 1971 Lab.I.C. 1342
16. 1978 Lab.I.C. 446.
17. 1981 (43) F.L.R. 144.

Judicial Approach to Local Bodies

Municipal and Panchayat Acts envisage provisions for maintaining a clean and healthy atmosphere within their localities. Authorities under these Acts are having divergent powers in control of industrial pollution is concerned. They vary from measures for eliminating pollution problems by regulating industrial activities through licensing to mere disposal of wastes, including industrial waste at times, through sewages. J.C.Galstaun v. Dunia Lal Seal¹⁸ is an early example. The appeal was out of a suit to abate nuisance caused by the discharge of unwanted liquid from a shellac factory into the municipal drain. Construction of drains is one of the primary duties of the local bodies.

Failure of the municipal authorities to fulfil the task was vehemently criticised by the courts on several occasions. As was already seen, the Ratlam's case,¹⁹ a milestone in this type of cases, made it clear that municipality cannot extricate itself from its responsibility and plead financial inability for performing statutory obligations.²⁰ High Courts also were not behind emphasizing on statutory obligation when it is said that the performance or non-performance is not a matter of discretion.²¹ As part of this obligation the municipalities

18. (1905) C.W.N. 612.

19. Supra. n.1.

20. Id., p.1628.

21. Rampal v. State of Rajasthan, A.I.R. 1981 Raj.121.

can proceed against individuals for not taking licence as per the notification issued by the municipality.²² No one can be permitted to pollute the atmosphere by letting out offensive materials. The Andhra High Court criticised the municipalities for permitting the polluters to let out effluents into the municipal drains as unjust and illegal.²³

Maintenance of health and sanitation preservation of environment falls within the purview of Article 21 as it adversely affects the life of the citizen and it amounts to slow poisoning and reducing the life of the citizen because of the hazards created, if not checked.²⁴ On these grounds the courts are determined controlling the administration of municipality. The Rajasthan High Court was not reluctant to issue guidelines to the municipality in relation to sanitation and public health. Following the Supreme Court's conclusions the court held that paucity of fund or staff cannot exempt the authorities from performing their primary duties.²⁵ In Lakshmi pathy v. State of Karnataka²⁶, the Karnataka High Court has categorically stated that Court cannot turn a Nelson's eye if the constitutional

22. Damodaran v. Health Assistant, Shertallai Municipality, 1966 K.L.T. 124.

23. Supra. Chapter 7, f.n. 134.

24. L.K.Koolwal v. State, A.I.R. 1988 Raj. 2 at p.4.

25. Id., p.5.

26. A.I.R. 1992 Kar. 57.

obligations are not discharged by due enforcement by the administrative agencies.

It is already proved beyond doubt by the Supreme Court that the above statement is not a bunch of meaningless words. In M.C.Mehta v. Union of India,²⁷ the Ganga Pollution case, the court criticised the municipalities of the cities on the banks of Ganga for their failure to obey statutory duties²⁸ which resulted in pollution of river Ganga. The court held that the Nagar Mahapalika of Kanpur has to bear the major responsibility for the same.

In M.C.Mehta v. Union of India,²⁹ the Sri Ram Foods case, the court pointed out the unsatisfactory state of affairs that seemed to prevail in the Delhi Municipal Corporation in discharging its obligations under the law.³⁰ Though the court did not issue any direction in this behalf, they expressed deep sense of regret at the total indifference of the Delhi Municipal Corporation in discharging its obligation under the law.

27. A.I.R. 1988 S.C. 1115.

28. Ibid. The Kanpur Nagar Mahapalika is established under the provisions of U.P.Nagar Mahapalika Adhiniyam. The duties and powers of Mahapalika and other authorities are set out in Chapter V. Under Section 114 (iii) (iv) and (viii) the duties are cast for removal of sewage, management and maintenance of all water works and guarding from pollution water used for human consumption.

29. A.I.R. 1987 S.C. 965.

30. Id., pp.977-978.

Enactment of Water (Prevention and Control of Pollution) Act, 1974³¹ may look as though it enlarged the scope of judicial interference in environmental issues but the inherent weakness of the Act in denying citizen's suit in the beginning limited the scope of judicial review considerably. The result was that the courts had to do nothing but interpret the statutory provisions literally. There are various reasons for the same. Firstly, absence of public participation degraded environmental cases to merely a dispute between the authorities and environmental offenders on interpretation of the statute. Secondly, the Act envisages appeals from only persons aggrieved by an order of the State Board. Thirdly, once the judgement comes in favour of the polluters, the authorities do not seem to show much interest in safeguarding the environmental interest at any cost.

The attempt by the Pollution Control Boards constituted under the Water Act and Air Act to enforce the legislative provisions relating to prevention and control of pollution was disputed in courts on several occasions. Most of these cases were appeals for quashing the order of Judicial Magistrate. Provisions dealing with apprehended pollution³² and liability of Directors and other senior officials³³ are some of them.

31. Act No.6 of 1974. For a detailed discussion a see supra. Chapter 4.

32. Id., Section 33.

33. Id., Section 47 and Air Act, Section 40.

Thus in Pondichery Papers Ltd. v. Central Board for Prevention and Control of Water Pollution³⁴ the company wanted to quash the injunction issued by the Magistrate on the plea of lack of jurisdiction to order compliance with a consent order. Madras High Court widely interpreted these provisions dealing with apprehended pollution to conclude that court's power extended to all such acts or employing all such means as are essentially necessary to the execution of that provision.³⁵ The court upheld the injunction issued saying that the power to prevent apprehended pollution covered the power to issue injunction restraining discharge of effluents as well. But judicial opinion does not seem to be consistent on the subject. For, Delhi High Court made a strict interpretation of the provision to conclude that Magistrate's power extended only to the passing of a restraint order by the court against the company for ensuring stoppage of apprehended pollution.³⁶ Such a strict interpretation invariably enables the real polluters to escape from the purview of the environmental legislation.³⁷ Magh Shyam Sharma v. State of U.P.³⁸ is an instance where the court preferred to weigh the circumstances and facts to hold that public health cannot be

34. Madras High Court Cri.M.P.No.4662 and 4663 of 1978 March 21, 1980. However, this case seems to be very important augmenting the power of the judicial magistrate when he is approached by the Board for an injunctive relief against apprehended pollution. However, this case is not seen to have been reported in any of law journals. The source here is Rosenclanz, et.al., (Eds) pp.158,159.

35. Ibid.

36. Delhi Bottling Co.Ltd v. Central Board for Prevention and Control of Pollution, A.I.R. 1986 Del.132.

37. Ibid. For example in this Delhi Bottling Co.Ltd's case the challenge concentrated round the fact that the Pollution Control Board failed to comply with the statutory requirements while taking the sample.

38. 1985 All. L.J. 1195.

allowed to suffer for safeguarding the interests of any industry. While Delhi High Court strictly adhered to the principles of natural justice in a pollution case,³⁹ the Allahabad High Court observed that "Hear the other side" the second principle of natural justice will depend upon the individual facts of the case.⁴⁰ In case of emergency when the public health of the citizens is of serious concern the court passed even *ex parte* order.⁴¹

In Pandyan Krishnan v. Assistant Engineer⁴² Kerala High Court seems to have held the view that in cases of emergency, i.e. apprehended pollution an order could be passed without hearing, but the court has to satisfy itself about the genuineness or acceptability of the apprehension and must apply its mind to the relevant aspects, before it passed an order.

T.C.C. Ltd v. Kerala State Pollution Control Board⁴³ is a decision prior to the 1988 Amendments to the Water Act. Facts are interesting. In this case the Pollution Control Board failed to act on the application for consent within four months from the date of application which resulted in deemed consent as per the provisions of the Act enabling the company to discharge effluents into the river as a unconditional right. The Kerala High Court tried to enumerate the shortcoming of the Act and suggested an all comprehensive legislation. The court also criticised the Pollution Control Board for its lack of diligence. It is true

39. Supra, n. 34

40. Supra, n. 38, p.1195

41. Ibid.

42. 1995 (1) K.L.J. p.164

43. 1985 K.L.T. 33

that a few of the courts recommendations are found in the 1988 amendment which armed the Board with stronger weapons. Conscious of the lurking industrial disasters around, the court found that it is for the government to tackle the pollution problem. The court held that 'consent' mechanism is the Central theme of the Act.⁴⁴

In all these cases industries were reluctant to implement the conditions of consent order, or in some cases even to instal a treatment plant. The issue became significant when Mr.M.C.Mehta, the eminent environmental lawyer, raised before the Supreme Court that tanneries discharging effluents into river Ganga and cause pollution did not care to set up primary treatment plants.⁴⁵ The Supreme court categorically equated a polluting industry and an industry which cannot pay minimum wages and held liable to be closed down.⁴⁶ This was significant precedent, followed in later cases especially in the wake of amendments⁴⁷ to order complete stoppage of the discharge of effluents from the factory.⁴⁸

44. Ibid.

45. Supra. Chapter 7 f.n.46

46. Id.,p.1045.

The court also held that financial capacity of the tanneries should be considered as irrelevant while requiring them to establish primary treatment plants.

47. For discussion of amendments, see supra, chapter 4

48. Shadi Lal Enterprises Ltd v. C.M. Saharanpur, 1990 Cri.L.J. 522 (All)

Even after this when effluents are discharged in polythene layered lagoons, the effluents shall be got tested by the petitioner through the agency of the Board.

Liability

Another area of dispute relates to the liability of office bearers of the company under these Acts. The question raised is whether or not the manager of the company can be made liable under the Act. In K.K.Nandi v. Amitabha Banerjee⁴⁹ the Calcutta High Court held that though a person lesser in grade than the manager can possibly plead that he is not in charge of and responsible to the company, a manager cannot evade liability.⁵⁰ The dispute related to interpretation of the following provision of the Water Act, 1974.⁵¹

"Where an offence under this Act has been committed by a company, every person who at the time the offence was committed was in charge of and was responsible to the company for the conduct of, the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly."

The court found that the provision is clear enough regarding the situation under which a person can be made liable for the act. It exempts persons from liability if he can prove that he was not in overall charge or he had no knowledge of the commission of the offence.⁵²

49. 1983 Cri.L.J. (Cal) 1479

50. Id., p. 1480

51. Water Act Section 47; Offences by companies

52. Supra, n. 49 at p.1481

But in K.N.Modi v. State⁵³ Allahabad High Court observed that to hold the officer in charge of the company liable⁵⁴ it was necessary for the complainant to have asserted that the offence had been committed with the consent or connivance of the directors or was attributable to any neglect on their part.⁵⁵ Later, the Supreme Court reversed this⁵⁶ stand and held that a combined reading of provisions makes it clear that people such as the Chairman, Vice-Chairman and Managing Director could be prosecuted as having been in charge of and responsible to the company for the business and could be deemed to be guilty of the offence with which they are charged.⁵⁷ Moreover, the burden is shifted on to the delinquent officer or servant of the company, who is really responsible.⁵⁸ The court tried to clarify that although as a pure proposition of law there can be no vicarious liability of the persons in this case unless there was a prosecution against the company owing the industrial unit, it would be a travesty of justice if a big business house is allowed to defeat the prosecution

53. 1984 All L.J.847

54. Water Act Section 47 (2) - Where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company...shall be deemed to be guilty of that offence and shall be liable to be prosecuted against and punished accordingly.

55. Supra, n.53

56. U.P.Pollution Control Board v. M/s Modi Distillery,
A.I.R. 1988 S.C.1128

57. Id., p.1132

58. Ibid. For, Water Act Section 47 (1) also provides that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act if he proves that the offence was committed without his knowledge for that the exercised all due diligence to prevent the commission of such offence.

launched for a technical flaw in drafting of the plain.⁵⁹ The question of liability was raised in the case of Dr.Z.Kotasek v. State of Bihar.⁶⁰

In this case the complaint did not mention any particular person. The first accused is mentioned to be the Manager of the company and the person appeared himself describing to be the manager and has taken responsibility of being the officer in charge without any exception or object. The court rejected the plea raised that he cannot be held liable.⁶¹

Later in N.A.Palkivala v. M.P.Produshan Niwaran Mandal, Bhopal,⁶² Madhya Pradesh High Court came to the conclusion that, in order to be liable, they have to be persons 'directly' in charge of and responsible to the company for the conduct of business.⁶³ The court tried to distinguish this case from the Supreme Court decision in Modi Distilleries case.⁶⁴ Applying the settled principle of interpretation of statutes that every word has to be given meaning and no word has to be treated superfluous, the court held that only persons directly in charge can be held liable for the offence. In the light of this proposition the duties and responsibilities of the manager of the company have no resemblance to the duties and responsibilities of the Chairman and Deputy Chairman. The court held that it is, therefore, not possible to hold that they, by virtue of the office held by them, can be

59. Ibid.

60. 1984 Cri.L.J. 683

61. Id., p.687

62. 1990 Cri.L.J. 1856

63. Id., p. 1860 Amendment to the Air Act in 1987 added the word 'directly' in section 40

64. Supra, n.56.

prosecuted for offences committed by the company.⁶⁵

It is not an accepted precedent that the burden of proving no liability is shifted to the person claiming the non-liability plea. In M.V.Arunachalam v. Tamil Nadu Pollution Control Board⁶⁶ the High Court referred to the earlier decision to hold that it is for the plea holder to establish that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of the offence.⁶⁷ The court rejected the petitioner's plea for special leave to the Supreme Court on the ground that law on the subject is well settled by the Supreme Court in Modi Distillery case.⁶⁸

The question of liability of the office bearers has been well scrutinised under another chapter.⁶⁹ Apart from that, the same was tested under the Insecticides Act, 1968 as well.⁷⁰ In M.V.Arunachalam v. T.Karthikeyan, Agricultural Officer liability of the Chairman was disputed.⁷¹ The court rejected the plea that

65. Ibid.

66. 1992 Cri.L.J. 188

67. Id., p.191 See also supra. n., 64

68. Supra. n. 56.

69. For details see supra. Chapter 7

70. Insecticides Act, 1968. section 33:- Offences by companies: "Whenever an offence under this Act has been committed by a company, every person who at the time of offence was committed was in charge of or was responsible to the company for the conduct of the business of the company...shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly"

71. (1991) 2 Comp. L.J.125

the prosecution launched against him alone is not sustainable in law.⁷²

Delegation of powers

Under Water Act the State Boards can delegate its power to grant sanction for prosecution to the chairman and the sanction so accorded by him is valid.⁷³

In Pandyan Krishnan and another v. Asst. Engineer and Another⁷⁴ the validity of the order delegating the power to the chairman of the Board including the sanction for legal action was challenged. The court held that the Board can legitimately delegate its authority to sanction prosecution.⁷⁵

The delegation of power to exercise the power to issue direction for closure of polluting industry under section 31A of Air Act was challenged on the ground that it is a power vested in the Central Government. High Court of Orissa held that power under section 31A can be exercised by the Board which the board can further delegate to the Secretary. The court justified such a delegation having regard to the composition of the Board, the manner in which its business is transacted at meetings that are held at intervals and the necessity to take urgent action in certain cases or in the exigencies of the situation that are likely to arise and to prevent avoidable delay to carry out the objects of

72. Id., p.127

73. Water Act Section 11 A The Chairman of the Board shall exercise such powers and perform such duties as may be prescribed or as may, from time to time, be delegated to him by the Board.

74. 1995 (1) K.L.J. p.164

75. Id., p.169

the Act.⁷⁶ It is the legislative intent to authorise the State Boards to delegate its powers and duties to be performed under the Act to its Chairman.⁷⁷ Therefore, power to prosecute⁷⁸ or to give sanction to prosecute any person for offences can be delegated by the State Board to the Chairman.⁷⁹ It is to be added that Government by notification to this effect has authorized Chairman to enjoy the delegated powers under Environment(Protection) Act⁸⁰ to issue directions.

Instances of air pollution are brought mostly as public nuisance or as a legal wrong invoking jurisdiction to the provision⁸¹ of courts to issue writs. The judicial approach to cases of air pollution is extremely diverse. Court's approach to toxic and hazardous air pollutants is noteworthy for its judicial innovation trying to evolve new jurisprudence.⁸² But courts deal lightly with instances where air pollutants are not hazardous due to toxicity. The courts seem not to substitute

76. Id., p.160.

77. Gujarat Pollution Control Board v. Indian Chemicals Manufacturer 1992 Cri.L.J. 1024.

78. Id., Water Section 49(1) of the Water Act, no court shall take cognizance of any offence under this Act except on a complaint made by -
 a) a Board or any officer authorised in this behalf by it or
 b) any person who has given notice of not less than sixty days ...to the Board or officer authorised as aforesaid.

79. Supra.n.77.

80. Ram Raj Singh v. Babulal, A.I.R.1982 All.285;
P.C.Chcrian v. State of Kerala, A.I.R. 1981 K.L.T.113 etc.

81. P.C.Chcrian v. State of Kerala, A.I.R. 1981 Ker. 113;
Navin Chemicals Manufacturing and Trading Co.Ltd. v. New Okhla Industries 1987 All.L.J. 13,

82. In M.C.Mehta v. Union of India, A.I.R. 1987 S.C.965; the Shri Ram Fertilizer's case court derived the principle of absolute liability. See supra.chapter 7.

their view to social and economic doctrine of legislative judgement and administrative expertise in such cases.

Navin Chemicals Manufacturing and Trading Co.Ltd. v. New Okhla Industries⁸³ is an example. The complaint of the petitioners was that pollution was caused by grinding of stones. Supreme Court transferred the case to be decided by the High Court ordering a survey to be conducted by the U.P.Pollution Control Board. The report based on this survey confirmed air pollution of the area.⁸⁴ The U.P.Pollution Control Board stated that both the petitioners and the respondent did not comply with the mandatory provisions of Air Act.

The court preferred to adhere strictly to the literal interpretation of the impugned law to take the stand of non-interference on the ground that when an Act creates an obligation and enforces the performance in a specific manner, that performance cannot be enforced in any other manner.⁸⁵ The court did not want to step into the shoes of administrative authorities.

83. Supra. n.10.

84. Id., p.15.

85. Id., p.21. Under the Air Act the provision contained is:
Section 43:- No court shall take cognizance of an offence under this Act except on a complaint made by a Board or any officer authorised in this behalf by it.

In a case of similar nature⁸⁶ where the Pollution Control Board prohibited its operation in one place and directed a polluting industry to shift to another locality, the High Court of Karnataka thought it as a harsh step neither warranted nor having the legal sanctity.⁸⁷ The court could not justify such a prohibitory order which according to the court caused loss to the owner as well as affected the livelihood of the workers. The court felt the consequences of such an act more hazardous than the air pollution.⁸⁸

Judicial Approach to Water Cess Act

The Water Cess Act was enacted three years after the Water Act with a view to provide adequate funds to the State Boards for their effective functioning. Under this Act, cess is calculated on the basis of the water consumed by the specified industries - any industry specified in Schedule I⁸⁹ and the power is vested with the Central Government. The specified industries and local authorities are subject to the cess if they use water

86. Chitanya Pulverising Industry v. Karnataka State Pollution Control Board, A.I.R. 1987 Karnataka 82.

87. Id., p.86.

88. Ibid.

89. Schedule I contains in it fifteen industrial processes list.

for purposes listed in Schedule II of the Act.⁹⁰

The judicial opinion was sought generally to disentangle the issue of including any particular industrial process within Schedule I of the Cess Act. The classification of an industrial process to bring it within the Schedule I has often become controversial since many of the industrial processes are to be dragged by interpretation. The Gwalior Rayon Silk company challenged the holding that it was a specified industry and liable to pay cess.⁹¹ The High Court of Kerala turned down the contention that the process involved will not bring it within the definition of "chemical industry".⁹² But in a identical issue the Andhra Pradesh High Court ruled that the industry was not one mentioned in Schedule I and as such was not liable to pay cess which the Supreme Court upheld. Supreme Court felt that every Act of Parliament must be read according its natural construction of words.⁹⁴ The Act

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90. Schedule II includes (1) Industrial cooling, spraying in mine pits, or boiler fee; (2) domestic purposes; (3) processing which results in water pollution by biodegradable water pollutants; (4) processing which results in water pollution by water pollutants which are not easily biodegradable or ask loses.
91. Kerala State Board for Prevention and Control of Pollution v. Gwalior Rayon Silk Manufacturing (Weaving) Company Ltd, A.I.R. 1986 Ker. 256
92. The Rayon pulp manufacturing process consisted of isolating cellulose present in bamboo and wood by removal of lignin and other contents.
93. Andhra Pradesh State Board for Prevention and Control of Water Pollution v. Andhra Pradesh Rayons Ltd, A.I.R. 1989 S.C.611 at 614
94. Ibid.

being fiscal in nature one has to look merely at what is clearly said.

"Nothing is to be read in, nothing is to be implied.

One has to look fairly at the language used".⁹⁵

In contradiction to the Kerala High Court decision, the Court concluded that the Rayon Grade Pulp is neither chemical nor textile industry.

In the meantime, in Kisan Sahkari Chini Mills v. State of U.P.⁹⁶ when the assessment order made under section 6 of the Cess Act 1977 was challenged, Allahabad High Court observed that the object for which the Act was passed has great relevance while interpreting the entries under the Schedule. Moreover, the true meaning and scope of entries of the first schedule cannot be ascertained and appreciated, divorced from the control of the Water Act, 1974.⁹⁷ Sugar Industry being one of the main sources of pollution the court preferred to read the same into Entry 15 to conclude that vegetable under the Cess Act includes sugarcane as well.⁹⁸ Courts again and again reiterated the need for considering the purpose and object of the particular legislation on other similar instances.⁹⁹ The purpose of these two legislations is to prevent the abuse of water, the most important natural resources, and to strike a balance. Therefore, the price of industrialisation and mass consumption of natural resources is to remove

95. Ibid.

96. A.I.R. 1987 All. 298

97. Ibid.

98. Ibid.

99. Kisan Sahkari Chini Mills Ltd v. State of U.P., .AIR 1987 All.298; Modi Industries Ltd, Modinagar, Ghaziabad, v. Union of India and others, 1990 F.L.T. 115; M/s Chandra Enterprises and another v. Cess Appellate Committee and Another, 1991 All. L.J. 729.

contamination which pollute water.¹⁰⁰ It is also not essential that for getting rebate as per section 7 of the Cess Act it should have received consent under Section 25 (1).¹⁰¹ Section 7 as well as Rule 6 do not envisage the Board's consent as a *sin qua non*.¹⁰²

Without following the Supreme Court dictum in Andhra Pradesh Rayons case, the high courts tried to construe that the Act liberally saying that arguments like this if permitted will defeat the intention of the law paying lip service to controls designed to prevent environmental degradation.¹⁰³ The court brought industry manufacturing "Mill board under the Cess Act and liable to pay cess where as Supreme Court's rationale permitted the escape of a heavily polluting industry, from paying cess. The classification of industries for enumerating them under schedule I is to be founded on the considerations of water getting polluted.¹⁰⁴ Thus in the case of industries consuming water, the levy is attracted where as a result of processing water gets polluted.

100. M/s Chandra Enterprises and Another v. Cess Appellate Committee and Another, 1991 All.L.J. 729

101. section 7 reads: "Where any person or local authority liable to pay the cess under the Act, installs any plant for the treatment of sewage or trade effluents...shall...be entitled to a rebate of seventy percent of the cess payable."

102. Supra, n.100. Under section 7 the consumer has only to show that he has installed a plant for the treatment of sewage or trade effluents and that it functioned successfully during the relevant period of earn rebate.

103. Ibid.

104. Modi Industries Ltd, Modinagar, Ghaziabad v. Union of India and others, 1990 F.L.T. 115.

Judicial review under environmental enactments seems to be a weak weapon for combating the ever increasing trend of industrial pollution. The case law assessed shows that the courts are not consistent in dealing with the provisions under the environmental legislation. In comparison to the writ remedy and common law remedy the scope of judicial activism under statutory remedy is considerably limited. This is due to many reasons. First of all the nature of environmental legislation is such that it aims at prevention and control of pollution rather than remedying the offence after commission. So it is more an administrative function than a judicial function and judicial interference is restricted to the extent of interpretation of statutory provisions. Moreover, strict adherence to the literal meaning is to be found in many cases. For example, in the case of 'liability', the Supreme Court has invariably derived the 'absolute liability' principle. Thus a polluting industry is absolutely liable for the offence.¹⁰⁵ But the next question is if an industry or a company is found to be polluting who is the person liable for the offence against which the Pollution Control Board can proceed? The strict adherence to the literal interpretation may permit the escape of real offenders. In Modi Distilleries case¹⁰⁶ the Supreme Court held that the Chairman, Vice-Chairman and the Managing Director etc could be prosecuted to be guilty of the offence. But, later, in N.A.Palkivala and Another v. Madhya Pradesh Pradhushan Niwaran Mandal, Bhopal¹⁰⁷ the Madhya Pradesh High Court tried to distinguish this case from

105. M.C.Mehta v. Union of India, A.I.R. 1987 S.C. 1086

106. Supra, n.64

107. Supra, n./0

the Supreme Court decision to conclude that Chairman and Vice-Chairman could not be held liable for the offence. The court justified its stand by strictly adhering to the literal meaning of the word 'directly in charge'.

Again, in many cases we find that the polluter is a public authority like municipality. Twelve years after the striking decision in Ratlam's case we see that things have not changed much. For example in the case of M.C.Mehta v. State of Orissa and Others¹⁰⁸ we see that the pollution Control Board could not prevent the pollution caused by sewage effluents from the Municipality. At last when public Interest Litigation was moved and court assessed the matter, the court found the approach of the functionaries and authorities evasive. The court felt it strange and was left wondering whether our municipal bodies and government departments are functional irrelevances, banes rather than boons and, 'lawless' by long neglect.¹⁰⁹

Now it is an accepted view of the court that a municipal corporation is an industry.¹¹⁰ That means it is within the purview of Pollution Control Board's pollution control measures. But, while proceeding against municipalities if we consider the literal meaning of the word 'directly in charge of', will it not be a task to punish a polluting municipality? Who is to be held liable for pollution? Against whom can the Board proceed to implement the penal provisions?

The inherent weakness of these laws, as rightly pointed out by the High Court of Kerala,¹¹¹ prevent proper implementation.

108. A.I.R. 1992. Ori. 226

109. Id., p. 228

110. Her Ram Gauri v. Municipal Corporation of Delhi, 1994 Lab. I.C. 139 (Delhi H.C) It is a Full Bench decision

111. Supra .n. 74

For example, when the courts differ in their opinion regarding the automatic repeal of the provisions of section 133 Cr.P.C. in so far as they relate to water pollution, Lakshmi Cement v. State and another¹¹² is an instance where the chairman of the Board himself, by letter, requested to take administrative action under section 133 Cr.P.C. for stopping the kiln from functioning on account of public nuisance. It also caused grave danger to the public health.¹¹³

Similarly, while dealing with the Water Cess Act, 1977 the high courts liberally interpreted schedule I of the Cess Act¹¹⁴ whereas the apex court showed reluctance to evaluate the relevant aspects of the provision.¹¹⁵ The court finally said that A.P. Rayon Company was neither a chemical industry nor a textile industry or a paper industry to pay cess as per Water Cess Act.¹¹⁶ Then the question is what industry it is? The court did not go further to categorise the rayon pulp industry so the conclusion has not been reached by the court. While doing so the apex court failed to look into the object of the Act or read between the lines. The Water Cess Act is primarily to provide for the levy and collection of a cess on water consumed for industrial purposes. It is aimed at augmenting the resources of the Central Board and State Boards for the prevention and control of pollution. It is also aimed at control of pollution by taxation in line with the

112. 1994 Cr.L.J. 3649 (Raj)

113. Id., p. 3651

114. Supra, 96

115. Supra 93

116. Id., p. 615

global attempts of the same nature. Whereas Allahabad High Court dialated the term vegetable to bring under its cover the sugar industry as well.¹¹⁷ The Supreme Court did not want to look into the object of the two laws¹¹⁸ to strike a balance between industrialisation and eco-balance. It is no doubt, a lost opportunity for the Supreme Court to evaluate the Act from environmental perspective and evolve a criteria qualitatively or quantitatively for bringing such polluting industries under the schedule I of the Act.

The courts are expected to synthesise a socially acceptable guideline to set in an equilibrium considering the various interests of the society. But the fact remains that there is still judicial dilemma like environment v. development and judicial activism v. separation of powers.

117. Supra. The court observed that the word vegetable cannot be given the meaning of vegetable which are kept on the dining table for dinner purpose. It has a wider amplitude.

118. Water (Prevention and Control of Pollution) Act, 1974 and Water (Prevention and Control of Pollution) Cess Act. 1977.

P A R T I V

CHAPTER IX

INDUSTRIES AND INCENTIVES

Pollution can grow to be cancerous. Before it does the environment should be saved. This is a great task today. The intensity of the problem makes it necessary to have simultaneous and coherent approach from different angles to reduce the ill effects since eradication is not easy.¹ Environmental protection is to be achieved both by prevention and control of pollution. Though regulatory approaches envisage provisions for attaining both, the urgency for effective implementation of this protection invites application of new and novel measures. Moreover, the inherent weakness of the regulatory mechanism and delay in judicial process² also make new and varying attempts inevitable. The basic jurisprudential theory that governs our environment laws is that of 'policing the society'³ instead of managing the society in a co-operative model of participatory democracy. Management of environmental resources such as air, water, land and forest cannot be efficiently handled by policing alone.

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1. Chhatrapati Singh, "Legal Policy for Environmental Protection" in P. Leelakrisnan et.al., (Eds) Law and Environment, (1991), pp.28-30.
 2. John Hopkins, "Resources for the Future" in Frederick R. Anderson, et.al., Environmental Improvement through Economic Incentives, (1977), p.1
Enforcement is a problem in regulations because polluters do not want to incur cost and prefer to argue with the regulatory agency on feasibility.
 3. Supra. n.1, p.32. Under this theory the legislators as well as administrators assume that their task is to act as vigilant policemen who detect crimes and bring the culprits to courts. Thus an atmosphere of conflict prevails instead of co-operation.

A responsible and benevolent government is to tackle these problems by other methods. Economic incentives are a means to achieve co-operation by deviating from the usual path of punishing the violators. It aims at rewarding the non-violators and serve as an additional instrument for abating industrial pollution. It also aims at overcoming the difficulties in the conventional approach of setting uniform standards.⁴ It is to provide a market place for environmental quality.⁵ In market economy everything is expressed in prices and in environmental protection it is the evaluation of social costs.⁶ Market will be encouraged to solve the economic problems at hand and people are to act voluntarily.⁷

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4. Armin Rosencranz, "Economic Approaches to Air Pollution Control" 23 Environment, 25 (1981). Regulatory approaches to pollution control are economically inefficient in that they require the same proportionate reductions in emissions from sources with varying costs, rather than requiring greater reductions from sources able more cheaply to abate pollution.
 5. Ibid.
 6. Heinrich Weiss, "Making Market Forces to work to Improve the Environment" Environmental Policy and Law, 21/3/4 (1991) 153 at p.154. According to this author 'environmental protection must be more than just crisis management damages. It must look ahead and help shape the future by taking advantage of market forces and technical progress. For this integrated systems of environmental protection are called rather than isolated concepts.
 7. Paul A. Samuelson and William D. Nordhans, Economics, (International 15th ed. 1995) p.712.

Economics of Environment

The task of managing environmental resources like air, water, land and forests is a difficult one because private property rights cannot be attached to any of these resources.⁸ The prevailing notion is that of 'first come first served' resulting in over exploitation and degradation.⁹ The degradation of environmental quality is due to several reasons direct and indirect, resulting in overuse as well as misuse of resources. The concept of 'free resource' deep rooted in the society results in delinquency mainly because these resources are thought to be everlasting public goods and market forces cannot attach a price in order to exclude those who cannot pay. Damage resulting from the consumption of unpriced but valuable resources is a major social problem.¹⁰ But it is already late for our decision making processes to recognise explicitly that environment is not to be taken as a free resource and like other resources it is to be

8. M.N.Murthy, "Taxing, a pollution Solution", in the Hindu Survey of the Environment, 1993 (1993), p.17.

9. Supra. n.2 at p.4. Industrial air pollution spoils clear, breathable air, upstreams polluters preclude downstream etc.

10. Id., p.26. For, the fact that a factory does not pay when particulates, SO₂ and other wastes are emitted into atmosphere does not mean that no one pays. The external costs of such uses are paid by other members of society.

considered as an input which has to be paid for.¹¹ Introduction of economic incentives aim at reducing the misuse and degradation of environmental quality by attaching economic impediments to charge consumers and producers the true cost of their action¹² as well as promote control measures by providing concessions and rewards. They are designed to increase environment protection and economic productivity by providing incentives for businesses and individuals to go beyond what regulators can achieve.¹³ Providing economic impediments is a way of curtailing the use of such resources. The idea is to rationalize the conflicting economic and social benefits inherent in pollution control

Growth of Economic Incentives as a tool of Environmental Protection

The drawbacks of regulatory mechanism in providing sufficient safeguards for environmental quality made economists look for alternatives. A.C.Pigon, a great neoclassical economist was the first to suggest a pollution tax or effluent charge for controlling

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11. Planning Law, Government of India, Seventh Five Year Plan, (1985) Vol.1 para 2.81. See for details Ch.3
 12. Robert N.Stavins, "Harnessing Market Forces to protect the Environment", 31 (1) Environment (1989), 5. In effective natural resource use environmental degradation can be reduced if consumers and producers are to pay full social cost of the consequences.
 13. Id., p.7. The conventional approach of setting uniform standards or requiring specific control technologies is an increasingly difficult and expensive way to achieve environmental improvement.

environmental degradation. He observed that pollution occurs because the sources of pollution fail to take into account the social cost. The regulatory mechanism makes the environment exclusively a government problem with very little role for the public. The fact that the regulatory system is actually a process of draining the public fund with weak incentives for research and development became gradually evident.¹⁵ Thus fostering economic incentives has its roots in the failure of regulations to consider the corresponding fiscal implications of affording public fund for the ever increasing problem of pollution. The purpose is to meet the externalities involved in pollution problems to some extent.

Economic incentives have two simultaneous targets in view. The first is to encourage the polluters to adopt better control devices by tax or tax concessions. The second is to internalize the external costs of pollution control and thus provide better environmental management. The major thrust of economic instruments is to develop cost effective technologies

14. Supra. n.8.

15. Regulatory approaches to pollution control are economically inefficient for it fails to encourage compliance, it creates weak incentives for research and development and also offers no incentive for sources to reduce emissions below the levels required by law. Regulations instead encourage lobbying for outbacks and delays in order to avoid large compliance costs. Rosencranz, op.cit., p.25.

to reduce pollution and generate revenues to finance monitoring and enforcement costs. It advocates the principle that polluter should pay for the adverse effects of his action. Providing incentives is thus an arrangement aimed at making compliance with laws economically attractive. The word incentive means an 'encouragement' or 'that which incites to action'. The encouragement can be positive or negative, direct or indirect, in cash or in kind, before or after pollution. Thus, a subsidy or concession inducing the polluter to make use of the facility provided to instal pollution control machineries at reduced rate serves as a positive incentive whereas a charge or tax on pollutants compelling him to seek the best available technology to avoid economic loss due to pollution is a negative incentive. Both methods encourage industries to adopt pollution control measures by helping to reduce the net production cost, while, eco-labelling encourages industries to produce environment friendly products thus providing better market facilities. Similarly the goal must be the effluent free plant nor "end of the pipe line treatment". Thus, economic incentives encourage innovation and technical progress through user benefits and tax concession.¹⁶

Types of incentives

OECD has identified five general categories of incentives namely subsidies, charges, deposit or refund schemes, creation of a market in pollution credits and enforcement incentives.¹⁷

16. Supra. n.6.

17. Simon Ball and Stuart Bell, Environmental Law, (1991), p.80.

Enforcement incentives are negative in nature and in turn include fines, non-compliance fees, administrative charges, performance bonds, damage compensation, etc.¹⁸

Subsidies

Subsidies constitute an arrangement found within the regulations, which provide that in order to promote pollution control measures, the government will arrange loan facilities at subsidised rates. Such a subsidy is mostly an income tax concession for the installation of effluent control machinery.¹⁹ It may be a customs duty exemption for importing such machineries or a rebate in the electricity charges for the operation of such machineries. John Hopkins considered subsidies as negative incentives since they are an economically inefficient means of reducing pollution.²⁰ Furthermore, all proposals for tax breaks or other forms of subsidy provide incentive only for investment in treatment equipment. The

18. OECD Environmental Policy Making in the 1990s, p.91 at pp.95-96.

19. In such cases income tax assessment must necessarily take the following into account:
 a) an investment tax credit for the purchase of new purification units;
 b) the ability to deduct depreciation of the capital cost of equipment over its useful life; and
 c) annual operating costs. If the purification equipment have to be replaced at the end of each depreciation period then the replacement cost will also have to be taken into account. Supra. n.1 ,p.43.

20. John Hopkins, "Resources For the Future" in Frederik R.Anderson, et.al., op.cit., p.16.

fact that they do not stimulate creative market place responses is an inherent drawback of subsidy as an incentive.²¹ Lacking in incentive, inefficient and unfair, they do not induce the polluter to abate pollution nor do they help the waste treatment processes to become more efficient. Moreover, it is actually a liability on the government exchequer.²² Despite the drawbacks, subsidies are major elements of environment policies of many nations particularly OECD countries.²³ They are easy to administer and are favoured

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21. S.Venu, "Alternative Instruments for Environmental Pollution Control", The Hindu, July 4, 1991(Hyderabad Edition)
When subsidies are linked with the installation of plant for treating waste, they do not help reduce pollution through modification of production processes. Lastly, subsidies are never high enough to make pollution control profitable. They only reduce the loss which the polluter suffers from extra costs.
22. Ibid. "For obvious reasons, subsidies are unfairness, they transfer the burden of combating distalities from the pollution to the tax payer...For the government expenditure involved has to be offset by increased taxes and/or reduced expenditure in other areas".
23. P.Nijkamp, "Economic - Ecologic Evaluation of Natural Environments" in P.Nijkamp (Ed) Environmental Economics (1976), Vol.I, p.80.
For eg., In U.S., in the case of Water Pollution, the use of both standards (Ambient Standards and effluent standards) is coupled with a massive federal subsidy programmes for construction of waste treatment facilities. Again, the cost of installations can be written off in five years, if the costs are incurred for factories operating before 1st January, 1969. The Swedish Government has since 1969 been giving industrial enterprises subsidies of 25% of the costs of environmental investments. In December 1971 the subsidy percentage was raised to 75%.
In West Germany, 50% of the initial or production cost of movable installations (which includes all factory installations) and 30% of immovable installation can be written off earlier. But it applies only for existing factories.
In France an accelerated depreciation in the first year of 50% immovable constructions aimed at decreasing pollution of air and water.
In England accelerated depreciation for such installations are no longer necessary. Industrial enterprises are now allowed to write off their investments in medium installations for 40% in the very first year. In addition, investment subsidies of 20-22% are granted to industries in development areas of England".

by industry.²⁴ But at the same time, unwarranted subsidies should be avoided.

Charges

'Charge' is the obligation to pay when environmental harm is produced and provides an incentive not to cause that harm.²⁵ Though pollution charges for environmental degradation was suggested as an alternative measure long back,²⁶ the difficulty in collecting information was a hurdle in the implementation of the process then.²⁷ It is an additional measure within the regulatory system since it requires a regulatory framework and proper policing.²⁸ Charges can be in the form of emission charges, user charges or product charges.²⁹ Charges can be levied at different

24. Supra. n.21.

25. Supra. n.2.

26. Supra. n.8.

27. The information on which to base decisions concerning environmental impact is frequently lacking or at least incomplete. The complexity of ecological systems and of environmental processes, implies that environment decision making is sometimes necessarily based on a considerable amount of uncertainty, even if planners raise the right question.

28. Simon Ball and Stuart Bell, Environmental Law, op.cit., p.80.

29. Supra. n.18 at p.96.

Emission charges are payments on the emission of pollutants into air or water or into soil and on the generation of noise. Emission charges or taxes are calculated on the basis of the quantity of and type of pollutant discharged. User charges or taxes are payments for the costs of collective treatment of effluent or wastes and product charges are levied on products that are harmful to the environment when used in production processes.

stages of the manufacturing process applying different criteria.³⁰ Thus it can both foster cost-effective redistribution of funds and create incentive for voluntary pollution abatement.³¹ It is a healthier device in protecting the unpriced but valuable resources like air, water and land though computing social damages pose enormous practical difficulties.³² It is a healthier device because its effectiveness is determined mainly by the ability of polluter to react.³³ It is a double edged weapon.³⁴ Charges can be levied in the fields of water pollution, air pollution, waste management and noise. And grater the cost-effectiveness of the approach adopted the lower the total bill that society must pay for achieving environmental standards.³⁵ Its purpose

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30. Supra. n.25 p.80-83. Charges can be:
 a) charge for the administrative cost of operating the regulatory system;
 b) charges reflecting the full environmental cost of activity;
 c) charges to finance environmental or pollution control measures or
 d) charges levied on polluting materials or processes.
 Also see R.Kannan, "Aim, Clean Technology" in The Hindu Survey of the Environment, 1992, p.147.
31. Rosencranz, "Economic Approaches to Air Pollution Control", op.cit.,
32. Supra. n.29 p.5.
33. Supra. n.25.
34. Charge is an incentive because they prompt the polluter to choose the best solution and constantly improve his waste-treatment processes so as to reduce costs. Charges also enable financial resources to be made available for restoring damage and financing pollution control plant for joint use.
35. Supra. n.21. The charges may be fixed taking into consideration the average cost of controlling environmental harms in various industries, services and municipalities or upon an estimate somewhat sociological in nature. John Hopkins, "Resources for the Future" in Frederick R.Anderson, et.al., op.cit., p.7.

is to deter the industries and other services from misusing the valuable natural resources.³⁶

Charge is an immediate incentive, for, the cost of pollution can be reduced only if the polluter takes steps to reduce the discharge and therefore, the question of control techniques and technology is left to the discharger.³⁷ It can also effectively control the concentration of industries by fixing increased charges for those units located in busy areas and providing an incentive of comparatively less charges if the industries locate themselves in places further away from the cluster of industries. For eg., when the location is shifted to an industrially backward area. But the difficulty to measure the damages is an impediment for levy of price on damages. Moreover, sometimes, it may be in small doses having a measurable impact only after long periods of accumulation or it may not be readily quantifiable. It can be emission charge. Thus it is a step for internalizing the external costs which means making the polluter pay for the damages.

Polluter Pays Principle

It is the allocation of the cost of pollution control and preventive measures, an economically sound policy prescription adopted by OECD countries long back.

36. Id., p.25. Where there is no charge for dumping wastes into the rivers, the air or vacant land, factories and individuals will rely heavily on these means to get rid of the useless residue from their production processes.

37. Id., p.34.

"The principle to be used for allocating cost of pollution, prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called 'Polluter Pays Principle'. The principle means that the polluter bears the expense for carrying out the above mentioned measures decided by the public authorities to ensure that the environment is in an acceptable state".³⁸

Later it has also been adopted by European Community. It supports long term efficiency and sustainability which should not be sacrificed for immediate short term gains. The polluter pays in order to prevent the undesired environmental effects or to eliminate them. It will not be correct to interpret this principle as constituting an excuse to continue pollution, paying the price. For, the idea is to improve the quality of environment by collecting from the polluter himself. Whereas, on the other-hand, it is an incentive to polluters to adopt measures for reducing pollution and thereby relieving themselves from paying. It is based on the rationale that environment related property rights are neither specific nor exclusive. That is, no one has got the right to pollute the environment. It cannot be interpreted merely as the imposition of levies and each polluter is to pay according to the extent of their responsibility in pollution.³⁹

38. OECD, The Polluter Pays Principle, 1975.

39. P.Nijkamp, "Economic - Ecologic Evaluation of Natural Environments" - op.cit., p.83.

Tax

Tax is another form of charge where, it is not the pollutant but the product that is charged. It will be an alternative to effluent or emission charges where the basic technical choices affecting pollution do not involve the possibility of effluent cleaning.⁴⁰ It is comparatively easy for administration since it is not necessary to collect detailed information about individual polluters.⁴¹ It is intended to promote the production and use of environment friendly products.⁴² The idea is to make companies as well as customers environmentally conscious. It involves the participation of both producers and customers. Thus the scheme of eco-labelling is an indirect incentive to encourage production and sale of such products.

Tradable permits

This approach is a method of creating a market in the right to pollute. The total allowable level of pollution is set and authorise firms to conduct market exchanges of permit.⁴³ It

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40. For eg. Environmental taxes is appropriate to deal with CO₂ emissions where effluent cleaning is not an option.
41. S.Venu, op.cit., See also Rosencranz, "Economic Approaches to Air Pollution Control", op.cit.,
42. Thus reduced tax payable on unleaded petrol compared with leaded petrol led to a rise in the use of unleaded petrol in many countries. In India also it is about to introduce the same.
43. It involves the issuance of marketable "rights licenses to pollute. Under this system ceiling is established on the level of permissible pollution, and a limited number of permits to pollute are then issued and traded in the open market. New polluters will have to buy the rights from existing holders if there is no spare capacity. Rosencranz op.cit.,

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provides an incentive for discharges releasing less pollution than their prescribed limits allow and trade the differences to other discharges in need of it. This does not have to begin or stay at status quo.⁴⁴ This measure is widely applied as a powerful tool in combating the international problems like global warming and ozone depletion.⁴⁵ The idea is to restrict the amount of such gases benign for ozone depletion and global warming as part of the international commitments under the Montreal Protocol to cut emission by specified dates.⁴⁶ This system of selling charges started with the concept of ambient standards for a particular

44. Permits can be first issued for some fractions of current emission and permit holders can be given a deadline to reach that limit. Permit can also be designed to move towards stricter standards.

Robert N. Stavins, "Harnessing Market Forces to Protect the Environment", op.cit., p.28.

45. In America: EPA has introduced the "emission trading" whereby firms that reduce emissions below the levels required by law receive a credit that can be used to allow greater emissions elsewhere. This has already saved \$5 billion in the cost of air pollution control over the last several years. EPA has also formulated the offset policy designed to avert a complete halt in development which allows new source of pollution to be established if it controls its emissions and if other sources in the area reduce their emissions more than enough to offset the added pollution - that is, if there is a net reduction in air pollution. See "The Clean Air Act Amendments, 1990. 22 E.L.R. 10159

In U.K. ground work for its use is laid in the Environmental Protection Act 1990, Section 3 (5) which allows the Secretary of State to establish total emissions of any substance either nationality or for a limited area, and to allocate quotas, with power progressively to reduce the total allowed.

46. The idea is to reduce stratospheric ozone depletion by phasing out potential ozone depleters with tradable permits. The restrictions are set by Montreal Protocol to the 1985 Vienna Convention for the protection of ozone layer. For eg., the U.K. Commitment is to stabilise emissions at 1990 level by 2005.

region.⁴⁷ But the chances of monopolizing trade by purchasing the pollution permits permissible may adversely affect the governmental policies.⁴⁸

Deposit Refund System

In this scheme a front end tax works as a deposit with a refund payable afterwards. It serves the purpose of promoting better waste management. The refund may be payable when quantities of toxic substances are reduced considerably by recycling or when it is turned into designated facilities for disposal.⁴⁹ The system works to achieve the incentive to follow rules for proper disposal as well as an urge to find out nonhazardous substitutes. The scheme can be widely used in the management of hazardous waste.⁵⁰

Enforcement Penalties

It is effectively used today as a complementary within a regulatory system. Penalty constitute charges for noncompliance of regulatory requirement. But it can either be a meagre amount or a quantum assessed in terms of the economic benefit gained by the polluter from noncompliance with pollution control requirements.⁵¹ Though criminal law uses both sanction and penalty as

47. John Hopkins, "Resources For the Future", op.cit., p.28.

48. Rosencranz, "Economic Approach to Air Pollution Control", op.cit., p.28.

49. In this system a deposit is paid on the acquisition of potentially polluting products when pollution is avoided by returning the products or their residuals and a refund follows.

50. Robert N. Stavins, "Harnessing Market Forces to protect the Environment", op.cit., p.40.

51. Supra n.48

devices for regulating environmental harms, it is the latter that is more effective and serve better purpose in environmental matters.⁵² It is used to safeguard the purpose of carrying out justice in society.⁵³ It is actually a common law remedy of 'damages' in a modified form where exemplary damages are caused.⁵⁴ It is deterrent in nature and serves as an incentive encouraging polluters to avoid such consequences by adherence to adequate control measures. But there is the inherent problem of enforcement since the polluters prefer to contest and argue with the authorities upon the feasibility of the decision.⁵⁵ For, it is for the authorities to prove the charge against the offenders beyond any doubt. Penalty for non-compliance is today a common feature of almost all environmental statutes.

But, a shift in the environmental policy towards the greater use of economic instruments is taking place gradually.⁵⁶

52. Simon Ball and Stuart Bell, op.cit., p.85.

53. K.N.Chandrasekharan Pillai, "Criminal Sanctions and Enforcement of Environmental Legislation in Law and Environment", in P.Leelakrishnan, et.al. (Eds) Law and Environment, (1992) p.175.

54. Ibid.

55. Frederick R.Anderson, et.al., op.cit., See also Rosencranz, op.cit., p.25.

56. Simon Ball and Stuart Bell, op.cit., p.84.

Because, whether it is a permit system or a charge or deposit refund system, there is a shift of burden which is different from that of regulatory mechanism. The polluters are left free to adopt adequate measures for reducing their economic liability. The type of incentive will invariably depend upon the nature of pollution.⁵⁷ Similarly it can also be designed to foster specific pollution abating behaviours relating to any or all of several steps in the production process.⁵⁸ Incentives can also be designed to check concentration of industries by adopting higher taxes or charges in heavily polluted areas.⁵⁹

Today economic incentives constitute one important category amongst those instruments designed to achieve the environmental goals. It can be a substitute or a compliment to other policy instruments such as regulation and cooperative agreements. The role of OECD in elevating economic incentives to such a position is great, initiated with the introduction of the polluter pay principle.⁶⁰ Later, when OECD instructed its member states⁶¹

57. For eg. when it is the subsidy and charges more feasible in the case of water pollution caused by industries, the taxes and permits will be of better use for avoiding air pollution and deposit-refund will be more effective against pollution caused by deposit of waste on land.

58. For eg. Selection of fuels, selection of industrial process, use of pollution control technology or selection of products, Rosencranz, Economic approaches to Air Pollution, OP. cit. p. 26

59. OECD, (1980), p. 53 op. cit. p. 110.

60. Ibid.

61. OECD, Economic Instruments for Environmental Protection, Paris, 1989 in E.P & L 1989 (Book III).

to experiment with economic incentives it turned out to be a victorious step towards achieving the goal. In 1991 OECD formulated at its 75th session on 10.1.1991 the Guidelines and adequate the policy and recommendations for the use of economic incentives in environmental policy.⁶² And it is the fulfilment of a long felt need for accepting various recommendations at different times by the Council.⁶³ It aimed at sustainable and economically efficient management of environmental protection, control and damage costs by a consistent use of market mechanisms.⁶⁴ OECD in its guidelines recognised environmental effectiveness; economic efficiency; equity; administrative feasibility and cost and acceptability as the criteria for choice of environmental policy instruments. And now experience shows that economic incentives can successfully be considered to tackle international and global problems such as acid rain, global warming and

62. Supra. n.26. Thus OECD laid down the recommendations and Guidelines having regard to - Article 5(b) of the Convention on the OECD of 14th December 1960.

63. - International Economic Aspects of Environmental Policies (26th May 1972);
 - Implementation of Polluter - Pay Principle (November 1971);
 - Application of Polluter - Pay Principle to Additional Pollution (7th July 1989);
 - Comprehensive Waste Management (28th September 1976);
 - Water Management Policies and Instruments (5th April 1978);
 - The Re-use and Recycling Beverage Containers (3rd Feb., 1978);
 - Noise Abatement Policies (3rd July 1978);
 - Strengthening Noise Abatement Policies (29th June 1985);
 - Water Resources Management Policies, integration, Demand Management and Groundwater Protection (31st March 1989);
 - Declaration on "Environment: Resources for the Future" (20th June 1985);
 - Ministerial Committee for the designing of such guidelines for the use of economic instruments and of market mechanisms to achieve environmental goals (31st May 1990);
 - Ministerial Declaration of the Second World Climate Conference of 7th November 1990 etc.

64. Supra. n.26.

stratospheric ozone depletion in the most cost effective manner.⁶⁵

WICEM recommended to Government to give priority to incentives and performance based environmental standards and regulations leaving industry to select the best means of meeting them.⁶⁶ UN also did not keep silent on the matter at the Rio Conference. The idea is well established and explicitly provided in the principles laid down.⁶⁷

Economic Incentives in India

As it is in any other country, penalties are prescribed by the environmental legislation.⁶⁸ The increasing of non-compliance fees in a big way is an effective way to ward off pollution.⁶⁹ Thus failure to comply with any direction or violations of the conditions of consent under Water Act

65. For example, in order to reduce CO₂ emissions and solution is to introduced tradable permits for specified amount of CO₂ world wide. Such an agreement was also indicated by Ms. Brundtland in WCED Our Common Future (Oxford 1987).

66. For details see infra, chapter 10, pp. 379, 380

67. "Rio Declaration" in Environmental Policy and Law, 221. Principle 16: National authorities should endeavour to promote the internalisation of environmental costs and the use of economic instruments taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

68. See infra. nn. 70-73.

69. R.Kannan, "Aim, Clean Technology", in Hindu Survey of India, 1992 (1992) p.147 at p.149.

will be punished.⁷⁰ Similar provisions are there in the Air Act.⁷¹ Environment (Protection) Act, 1986 provides the maximum amount of fine with additional fine for continuing the non-compliance.⁷² In all these cases it is rather the possibility of a stigma of criminal sanction than economic loss that work as a disincentive for pollution. According to one author even the fact that the punishments have been increased after the 1988 Amendments may not have the desired effect of preventing and controlling pollution. On the contrary it might aggravate the

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70. Under the Water Act 1975, the chapter VII dealing with 'penalties and procedure' Sections 41-45A. Prescribe fine for varying offences. Thus section 41 prescribes punishment upto three months imprisonment or fine upto ten thousand rupees or both with an additional fine extending upto five thousand rupees per day for continuance of failure to comply with the direction. Section 42 also provides for penalty alongwith imprisonment for obstructing the functioning of the Pollution Control Board. The Amendment Act of 1988 has introduced a new provision in Section 45A for contravening any of the provisions of this Act where the penalty prescribed extend to ten thousand rupees and for continuing contravention the additional fine upto five thousand rupees for every day during such contravention.
71. Under the Air Act 1981, the Chapter VI dealing with penalties and procedures, sections 37,38 and 39 prescribe fine upto ten thousand rupees alongwith imprisonment. These sections have been substituted by Amendment Act 47 of 1987 where the amount has been increased considerably. They also prescribe additional fine which may extend to five thousand rupees for every day during the continuance of contravention.
72. Environment (Protection) Act, 1986, Section 15. The fine may extend to one lakh rupees and in case the failure or contravention continues additional fine may extend to five thousand rupees for every day during continuance of such failure or contravention.

inhibitions of the court/prosecuting agencies in launching prosecutions.⁷³ It is opined in juristic circles that this sword of Democles will be more practicable in the case of corporate bodies than a single small industrialist especially when other penal measures prove to be least effective.

However, in the case of the greatest industrial accidents the world has ever known, namely, the Bhopal disaster there seems to have been musical chair drawn enacted. Just after the incident took place Mr. Anderson, the Managing Director of Union Carbide Corporation set his foot in the Bhopal, he was arrested and kept in the guest-house with all facilities of a VIP. He was then taken to the capital for discussion at higher levels and was allowed to go back without restrictions on his movement. The 1989 settlement exculpated all those who were in the array of accused persons.^{73a} However, in the review the Supreme Court reviewed this position and declared no criminal proceedings will abate.

73. Supra. n.54 at p.183.

73a. Union Carbide Corporation v. Union of India (1991)4S.C.C.

As an alternative to these enforcement difficulties incentives are proposed.⁷⁴ Implementation of these suggestions has been carried out by the Government when 'Incentives for Environmental Protection was published providing tax concessions of varying nature.⁷⁵ Prime Minister announced dispersal of industries as an important national objective policy to avoid concentration of industries in overcrowded metropolitan areas.⁷⁶ Fiscal incentives were declared for the spread of industries to

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74. P.V.S.Namboodiripad, "Economic Incentives for Environmental Improvement", [1984] C.U.L.R. p.77. This author suggested interest free loan, exemption from Central excise duty or reduction for the same, concessions in income tax, electricity tariff and import duty, investment subsidy and state wide awards for small, medium and large scale industries. *Id.*, p.80.
75. "Incentives For Environmental Protection", (PIB release issued on 28th March 1985), in (1985) 2 Comp.L.J. p.103. Thus a depreciation allowance at 30 percent is allowed on devices and systems installed by industrial units for minimising environmental pollution. Again a grant of investment allowance at a higher rate of 35 percent as against the general rate of 25 percent of the actual cost of new machinery or plant for pollution control. To encourage shifting of industries from overcrowded cities, capital gains arising from transfer of buildings or land are exempted from tax. A rebate at the rate of 70 percent of the actual cess on water on the installation of all pollution abatement devises. Again section 35 CCB of the Income Tax Act, 1961 provides for 100 percent deduction of the amount when the object of the programme is environmental protection.
76. Industrial Policy During the Plan Period, (Prime Minister's Policy Statement 10 December 1986) in (1987) 1 Comp.L.J. p.48.

backward areas which included concessional finance by All India lending institutions, subsidy on fixed capital investment and preferential treatment in the grant of industrial licence.⁷⁷

The need for providing incentives as a promotional measure for prevention and control of pollution is also recognised by Government today. The National Conservation Strategy and Policy Statement on Environment and Development⁷⁸ has acknowledged the fiscal incentives for the installation of pollution control devices.⁷⁹

As part of the implementation of these policies the Government has included pollution control subsidies into the category of subsidising welfare activities such as health, education and communication.⁸⁰ These subsidies are generally in the form of low

77. Incentives for setting up industries in 'No Industry districts 'backward areas'. (Ministry of Industry Press Note dated 27.4.1983) in (1983) 2 Comp.L.J. p.137.

78. The National Conservation Strategy and Policy Statement on Environment and Development are in response to the need for laying down the guidelines that will help the have environmental considerations into the fabric of our national life and of our development process. It is an expression of our commitment for reorienting policies and action in unison with the environmental perspective. "National Conservation Strategy and Policy Statement on Environment and Development", (1992) Comp.L.J. p.118.

79. These measures envisages among other things: incentives for environmentally clean technologies, recycling and reuse of wastes and conservation of natural resources - operationalisation of "polluter pays principle" by introducing effluent tax, resource cess for industry.

80. Supra. n. 69.

interest loans and tax incentives.⁸¹ Fiscal subsidies of varying nature are elaborately planned.⁸² Though the Industrial Policy Resolutions from time to time provide incentives to industries for different purposes it did not cover environmental matters till the Industry Policy Statement of 1980.⁸³

The Policy Statement on Environment and Development regards operationalisation of 'polluter pay principle' as an action point of environmental considerations. This should be so when industrial growth is encouraged. The policy recommends,

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81. Ibid. For eg., now IDBI and ICICI are channeling low interest funds from International Bank for Reconstruction and Development (IBRD) to help set up common and individual effluent treatment plants and development of cleaner technologies.
82. Paristhithivarthā 12 and 13 (Environment News), 1992 April-Sept. Thus the Central Ministry for Environment and Forest has evolved a scheme for this purpose with World Bank aid of \$15.5 crores. According to this cluster of Small Scale industries will be provided with common plant and 20% of the expense will be born by Central Government and State Government each (20+20) 40% will be by Industrial Development Bank of India. Only 20% will be taken by the Industry. Even middle class industries as well can join it. But no government aid will be given for them. Again, small middle scale industries will be given aid upto 36% for their demonstration plants for reducing the production of waste. 40% grant will be given by the Central Government. Big industries and medium industries having chances of more pollution will be granted loan upto 75% for pollution control measures. For eg., sugar, leather, paper and pulp, paints, petrochemicals fertilizers, insecticides, drugs and distillery are such type of industries provided with financial aid.
83. Industrial Policy Statement, 1980 para 28 and 29. The policy ensured special assistance including finance on concessional terms for optimal utilisation and energy or the exploitation of alternative source of energy as well as activities that will reduce deleterious effects on pollution of air and water. The Government also planned to consider schemes for soft loans to include in it activities related to energy conservation, exploitation in non-traditional sources of energy like solar energy and control of water and air pollution.

effluent tax and resource cess for industry.⁸⁴ It can be seen that the idea of collecting cess from industries for the water consumed has already been incorporated into a legislation as early as in 1977.⁸⁵ It is with a view to augmenting the resources of the Central Board and State Board for the proper implementation of the Water Act, 1974⁸⁶ that this legislation was enacted. Thus, the cess shall be payable by every person carrying on any specified industry and every local authority for any of the purposes specified, at a rate fixed under the Act.⁸⁷ But only those industries listed in the Schedule I need pay the cess.⁸⁸

84. Supra. n.79 p.10-11.

85. Water (Prevention and Control of Pollution) Cess Act, 1977 Act No.36 of 1977 dated 7th December, 1977.

86. The Act begins by stating:

"An Act to provide for the levy and collection of cess on water consumed...with a view to augment the resources of the Central Board and State Boards for the prevention and control of water pollution constituted under the Water (Prevention and Control of Pollution) Act, 1974.

87. Water Cess Act, 1977, Section 3 (2)(b) and the Schedule II has fixed cess for the water consumed for industrial purposes. As per this table the maximum rate is three-fourth of a paise per kilo.ltr. for water used in industrial cooling-spraying in twice pits and boiler feed, two paise per kilo litre for processing where by water get polluted and pollutants are easily bio-degradable while two and half paise per kilo-litre when the pollutants are not easily bio-degradable and are toxic.

88. Schedule I list 15 industries. They are (1) Ferrous metallurgical industry (2) Non-ferrous metallurgical industry (3) Mining Industry (4) Ore processing industry (5) Petroleum industry (6) Petro-chemical industry (7) Chemical industry (8) Ceramic industry (9) Cement industry (10) Textile industry (11) Paper industry (12) Fertilizer industry (12) Coal (including coke) industry (14) Power (thermal and diesel) generating industry (15) Processing of animal and vegetable products industry.

The criteria for collecting cess is only the quantum of water, as a resource, used. It is not the nature or extent of pollution resulting from the process.⁸⁹ So, the Act is effective in protecting the environment partially. While, more than the consumption of water, it is the effluents discharged that will adversely affect the environment and result in hazards. Again, the Act covers only water as a resource leaving behind air and land. Hence it seem to be not an adequate provision. There should also have been effluent charges as well as emission charges to serve the purpose of an incentive that not only reduces resource consumption but also enhances control measures. Thus, one wonders whether the Water Cess Act incorporate the 'polluter pay principle'.

ECOMARK - An Incentive

The Scheme of eco-labelling environment friendly products, while products containing harmful ingredients are put up with warning label is a novel idea incorporated into our environmental legislation in order to promote consumer interference in environmental protection.⁹⁰ According to this scheme, Government lays

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89. The cess is collected for the water consumed irrespective of the polluting nature of the industry. Therefore, when highly polluting industries are sometimes outside the purview of the Act, others that they not even cause least pollution are compelled to pay the cess.
90. Ministry of Environment and Forests (Department of Environment, Forests and Wildlife) Notification No.G.Sr.85(E) dtd. Feb.20, 1991, C.C.L. 1991 Part III p.183. Notification issued under Section 3 (1) and 3(2)(v) of Environment Protection Act, 1986. The objectives of the scheme are:
- i) To provide an incentive for manufacturers and importers to reduce adverse environmental impact of products.
 - ii) To reward genuine initiatives by companies to reduce adverse impacts.
 - iii) To assist consumers to become environmentally responsible in their daily lives by providing information to take

down criteria for particular manufacturing process as well as products and manufacturers are left free to seek the ECOMARK by complying with those criteria.⁹¹ An environment conscious society will promote the use of products having the label and will be an incentive to industries to opt for the same.⁹² Thus the criteria for a few products are already finalised and now it is for the manufactures to comply with the same and get the ECOMARK for their products.⁹³

National Award for Prevention of Pollution

This scheme of National Awards is to encourage industries and operations to take significant steps for prevention of pollution.⁹⁴ It is being offered to both big industries coming under

accounts of environmental factors in their purchase decisions.

- iv) To encourage citizens to purchase products which have less harmful environmental impacts.
- v) Ultimately to improve the quality of the environment and to encourage sustainable management of resources.

91. The Environmental Criteria for each product category will be notified by Central Government and later on shall be translated into Indian Standards by the Bureau of Indian Standards. For the purpose the environmental impact of the products is assessed taking into consideration factors like potentiality of pollution, recyclability and biodegradability of the product, contribution to saving non-renewable resources etc. G.S.R.No.85(E), serial No.5, op.cit., page 187.
92. The products will then bear the logo of ECOMARK. This logo the picture of an earthen pot - See Appendix.
93. The final criteria for products like paper, architectural paint, detergent and soap are published.
 1. Notification, G.S.R.867(E) dtd. 9, November 1992 in 1993 C.C.L. Part III. p.85 (for paper)
 2. Notification, G.S.R.110(E) dtd. 19 February 1992 in 1992 C.C.L. Part III. p.181 (for paints)
 3. Notification, G.S.R.706(E) dtd 15 November 1991 pp. 3-4 (for detergents)
 4. Notification, G.S.R.705(E) dtd. 15 November 1991 in 1992 C.C.L. Part III p.86.(for soap)
94. G.S.R.736(E) dated August 26, 1992 in C.C.L. 1991 Part III, p.550.

the category of highly polluting industries⁹⁵ as well as small scale industries.⁹⁶ Eligibility for the awards is based on several considerations.⁹⁷ Such as efficiency in achieving quality of the environment. The idea is to boost the polluting industries to compete for reducing pollution considerably.

Deposit Refund Scheme is yet another strategy of incentive comparatively later in origin. Public Liability Insurance Scheme envisaged by General Insurance Corporation of India, though compensatory in nature, is a step in this direction where industries are under compulsion to take insurance premium.⁹⁸ But the scheme envisaged under the Environment (Protection) Act, 1986 for the management and handling of hazardous wastes is silent about promoting the same by providing incentives.⁹⁹

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95. Ibid. Award numbering upto eighteen (18) will be given each year, once in each of the identified category of highly polluting industries. These industries have been identified as:
 (1) Sugar (2) Fertilizer (3) Cement (4) Fermentation and Distillary (5) Aluminium (6) Petro-Chemicals (7) Thermal Power (8) Caustic Soda (9) Oil Refinery (10) Sulphuric Acid (11) Tanneries (12) Copper Smelting (13) Zinc smelting (14) Iron and Steel (15) Pulp and Paper (16) Dye and Dye Intermediates (17) Pesticides (18) Pharmaceuticals.
96. Ibid. Award numbering upto five (5) will be given each year to small scale industries in the following categories:
 (1) Tanneries (2) Pulp and paper (3) Dye and Dye Intermediates (4) Pesticides (5) Pharmaceuticals.
97. Supra. n.72 note no.8.
98. Public Liability Insurance Act 1991 (Act No.36 of 1991).
99. See supra. chapter 4, pp.115,125

Thus it can be seen that use of economic incentives as a means for controlling pollution and environmental degradation, is yet to bring different strategies within its purview in our country. But widening the range of regulatory instruments and supplementing them with economic instruments is the need of the day. For, in comparison to the clear cut and concrete provisions introduced by developed nations¹⁰⁰ responsible for more than 80% of the total industrial pollution our country still lags behind. We are dependent more on regulatory instruments and enforcement dictums to be implemented from above, by the Government and administrative bodies than on incentives that generate voluntary schemes for pollution abatement.

100. Robert N. Stavins, "Harnessing Market Forces to Protect the Environment", op.cit., pp.5-7.

For eg., EPA began to experiment with emission trading in 1974 and introduced the 'Offset' programme in 1976. These programmes were codified in EPA's 'Final Policy Statement on Emission Trading' in 1986 and EPA's programme have resulted in saving more than \$4 billion in control cost with no adverse effect on air quality. Again the Project 88 Report, a bipartisan effort to find innovative solutions to major environmental and natural resource problems, has conferred a new political legitimacy on economic - incentive based approaches to environmental problems. Similarly Environmental Defence Fund was the first of the major environmental organisations to advocate incentive - based policies. The various recommendations in the 'Project 88 Report' are designed to increase environmental protection and economic productivity by providing incentives for businesses and individuals to go beyond what regulation can require.

Role of Workers in Control of Industrial Pollution

Worker is a person employed in an industrial establishment.¹⁰¹ Worker's concern for the industries is more because he is both a beneficiary¹⁰² as well as a victim of industrial activities.¹⁰³ Working environment in the modern industries is much more polluted in the era of chemical and nuclear activities endangering his life with immediate or remote consequences.¹⁰⁴ Generally termed occupational health hazards, almost all industrial activities carry with it such consequences.¹⁰⁵ The occupational diseases are mostly severe in nature and effect but are slow or even remain undiagnosed as an occupational disease in

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101. The Bill introduced in the Rajya Sabha on 25th May 1990 known as "The participation of workers in Management Bill, 1990" defined worker under Section 2 (1) to mean any person employed in any industrial establishment to do any manual, unskilled, skilled, technical, operational, clerical, supervisory, managerial or administrative work for higher or reward. The Bill also distinguished between worker and a workman. Workman defined in section 2 (j) means any worker, but does not include any such worker who is employed in a supervisory or administrative capacity draws wages exceeding Rs.1,600 per month or exercises...functions mainly of a managerial nature. R.Santhanam, "Worker's Participation in Management" in (1990) 2 Comp.L.J. 121.
102. N.S.Chandrasekharan, Environmental Protection:Industrial, Labour and Protection of Environment [1994] C.U.L.R. p.171.
103. Industrial risks are on an increase. Whether it is pollution or accidents, workers are the immediate affected "social protection and working conditions" (Preventing Industrial Disasters). World Labour Report, p.78.
104. Duna Roy, "When the grind tells on you", The Hindu Survey of Environment, 1993 p.76 at 77; "Social Protection and Working Conditions" (The EC and the Severe Directive) World Labour Report, p.78.
105. Duna Roy, op.cit.
For example garage workers, petrol pump attendants are all affected persons as is the workers of highly polluting industries like asbestos industry. Study conducted by ICMR (Indian Council for Medical Research) found that even a process like manufacture of state pensils caused silicosis among the workers.

several cases.¹⁰⁶ Workers are the group that bear the hazards of industrial pollution more than anyone else.¹⁰⁷ This results not only due to the pollution hazards involved but also due to the negligence and carelessness of the workers¹⁰⁸ at work places as they fail to adhere to safety measures strictly¹⁰⁹ Industrial laws have always shown interest in protecting his interests by providing him with certain rights and he is also

106. Ibid. For eg, industries like asbestos industry cause lung diseases that are incurable eventually leading to cancer or death. But since the period of exposure may be as long as 20 years and in most cases these are diagnosed as simple bronchites, asthma or tuberculosis who do not care to know the trade he is of.

Erik P. Eckholm op.cit.,

It is noted that occupational exposures to asbestos alone, which peaked, in developed countries in the 1950s... account for anywhere from 3 to 18% of U.S. Cancer deaths today, thirty years after the main exposures. Those working in a variety of other industrial processes too have belatedly discovered the invisible dangers of their jobs.

107. WHO has estimated the 3% of global burden of disease is caused by preventive injuries and deaths in high-risk occupation and by chronic illness stemming from exposure to toxic substances, noises and hazardous work patterns. World Development Report, 1993, p.95.

It is estimated that every three minutes one worker dies of an occupational injury or illness and every second at least three workers injured in the world. Every year 1.8 lakh workers die and 11 crores get injured in occupational accidents. Arunkumar Bhatt, "Dangerous Work", Hindu Survey of the Environment, 1993 p.84.

According to ILO the cost of occupational injuries and deaths in industries is between 1 and 4% of GNP.

108. For example in the case of Bhopal tragedy the Union Carbide alleged the negligence of workers as the reason for such an accident.

109. World Development Report, 1995 p.78. See also Rosencranz, Environmental Policy and Law in India, p.2. Thus workers participation in plant safety and stringent penalties on high level management for the breach of factory safety regulations are expected to reduce accidents.

entrusted with duties for ensuring his safety¹¹⁰ and improving working and living conditions. Environmental protection can be achieved to certain extent if industrial workers make use of the safety devices and also take efforts to avoid pollution by appropriate measures.¹¹¹ And this requires educating workers and creating in them environmental awareness.¹¹² Moreover, there are sometimes even instances of acts of mischief or sabotage.¹¹³ Whether it is a routine pollution or an act of mischief, accident or natural disaster workers are the first and most affected and preparing them to meet and reduce its adverse consequences demands co-operation between the management, workers, the government and regulatory authorities and the community.¹¹⁴ It is at this juncture that Trade Unions have to resume action the field of environmental protection in addition to its routine

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110. "Social Protection and Working Conditions, op.cit. Preamble to the constitution of the ILO included protection of workers against injury arising out of their employment. N.Vaidyanathan, International Labour Standards: A Handbook, (1977), p.115.
111. Ibid. Because most accidents are caused by unsafe working conditions and practices.
112. Supra. n.8. Alleviating occupational risk depends on safety education for workers and managers, use of appropriate equipment and technology and sound management practices. See also N.S.Chandrasekharan, op.cit.
113. Supra. n.103
114. Ibid. p.79. See also World Development Report, 1993, op.cit. The two things that industries should take into consideration are (1) Prevent accidents by taking appropriate safety measures (2) Minimise the consequences of any accidents which do occur by ensuring that plant is at safe distance from rousing and drawing up effective emergency plans. It is only through a co-operative effort that such consequences can be brought under control.

activities.¹¹⁵ Trade Unions can play a major role in detecting and solving problems including environmental questions.¹¹⁶ Such functioning requires that they have access to necessary information, they are involved in consultation and negotiating mechanisms and their participation is ensured in the planning stage itself.¹¹⁷ Efforts to these results have already been stated.¹¹⁸ Such participation in turn promote also the right

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115. International Conference of Free Trade Unions (ICEFTU) EPL, 16/5 (1986) p.173. The immediate working environment is and has been a direct concern of Trade Unions all over the world. See also World Development Report, 1995, p.78; N.S.Chandrasekharan, op.cit., Trade Unions consider themselves to be generally concerned with service problems of workers.
116. Id., p.174.
117. Id., p.173.
118. Ibid. ILO has established occupational health and safety standards, ICFTU, International Trade Secretariates and Officiates are active in seeking to ensure that union representative at work place are fully equipped to monitor health and safety practices. EC, in 1982 adopted the "Servo Directive" and each country in the EC has enacted legislation to implement the servo directive - servo directive covers both lower risk sites as well as high risk sites. Social Protection and Working Conditions, op.cit., p.78. In Germany prevention of work related illnesses and the continuous implementation of measures to protect the environment and health form a cornerstone of the worker and environmental protection policy of the DGB and its affiliated Unions, German Federation of Trade Unions, EPL 16/1 (1986) p.39. The Federation of the German Trade Unions (DGB) in the paper "Environment Protection and Qualitative Growth" opts for (1) polluter pay principle (2) prevention to be more strongly applied (3) surcharges levied as a control instrument of environmental policy (thus pollution inducing production made more expensive and less profitable (4) sharing the burden by using public funds for special cases etc. as the positive measures for control of pollution. (EPL 16/1(1986) p.14). Industrial countries have enacted law requiring worker representation on working conditions committees protecting "Whistle blowers" to a test to dangerous working conditions. Again ILO conventions on workers health and safety such as occupational cancer convention, occupational Health and Safety Convention and Asbestos Convention etc. are a few other steps though have been

to information.¹¹⁹ The significance of the role of labour union in ensuring compliance with health and safety standards is already proved in the developed countries.¹²⁰ ILO's Asbestos Convention provided that employers and workers or their representatives shall co-operate as closely as possible at all levels in implementing the measures prescribed for protection and safety.¹²¹ Pollution hazards are encountered

ratified by only few nations. Again, after Bhopal Incident, ILO instituted Occupational Safety and Health Hazard Alart System, In Mohan A.Prabhu, G.C, "Hazardous Products Process and Wastes" in Human Rights: Perspectives p.203 at 206.

119. Ibid. See also Workers get "Right to Know", 26 Environment, 22(1984)
OSHA has issued final regulations giving factory workers access to information on the Health Hazard to work place chemicals. But labour organisations fear that the federal regulations could preempt state and local right to know.
World Development Report, 1995, p.76 at 77.
Such information is a cheaper and effective device in helping workers. A Union can spread the cost of obtaining information on health and safety issues among all workers, bargain with employers on the level of standards to be observed and monitor their enforcement without putting any individual worker at risk of losing his or her job.
120. For example in U.S.Labour Unions play an important role in enforcing health and safety standards. In a walk around employees accompany Government Inspectors during a tour of the work place.
World Development Report, 1995 p.78.
121. "The Asbestos Convention, 1986" Article 8.

by the workers involved in the manufacturing process alone but also by those who are engaged in agricultural farming where pesticides are in use for increasing production.¹²² The overall conclusion arrived is that Trade Unions can play an active role in compelling the authorities to provide healthy working environment and at the same time educate and train the workers to avail the precautionary measures complied with, by monitoring employees compliance with government regulations.¹²³ In our country Trade Union are yet to take up the task of pollution control,¹²⁴ as a part of its duty to protect the interest of workers.

Workers participation in environmental protection is no more a hypothesis. Legislative recognition of the same have already been ensured under 1987 Amendment of the Factories Act.¹²⁵

122. Id., p.76. In 1974 a law suit was filed in Texas on behalf of 16,000 farm labourer's who claimed exposure to a pesticide proven to cause reproductive problems had made them sterile. In Costa Rica banana workers and their families suffer from an array of medical problems ranging from cancer to higher than average rates of birth defects. Health experts argue that these problems are caused by the potent pesticides used on plantations. WHO estimates that more than million agri-workers across Latin America are poisoned every year and that 10,000 die from exposure to chemicals.

123. World Development Report, 1995, p.79. See also N.S.Chandrasekharan, op.cit., p.172-174. According to him, the Trade Unions can work at different levels to protect the environmental safety of the workers which in turn will lead to environmental protection. They vary from involvement in the consent procedure under the environmental legislation to creating mass awareness of the problem of pollution which may extend even to practices such as boycotts, strikes and refusal to carry out works harmful to society.

124. Citizen's Report 1982, p.338

125. See also Supra. chapter.V

The Government of India issued model Rule 123-A under Factories Act for adoption and today Asbestos industries have formed the "Asbestos Information Centre" affiliated to the Asbestos International Association (AIA), London, AIA has published a code of conduct for its members which AIC is following in India.¹²⁶ WCED (Brundtland Report) also stressed that regulations and standards should govern among other things occupational health and safety of workers¹²⁷ as part of sustainable industrial development. Supreme Court has also considered the occupational safety of workers as an essential ingredient of environmental protection.¹²⁸ Role of workers and their unions to ensure healthy working conditions is great in the multinational corporations as it is evident already that such big industrial giants are more reluctant to adhere to environmental safety.¹²⁹

126. As it is stated in Consumer Education and Research Centre v. Union of India, A.I.R. 1995 S.C. 922 at 942.

127. Our Common Future, p.220.

128. M.K. Sharma v. Bharat Electronics Ltd. A.I.R.1987 S.C.1792
Consumer Education and Research Centre v. Union of India,
A.I.R. 1995 S.C. 922.

129. ILO Report shows that multinational corporations pay workers low wages and over charged 25 to 50% for products supplied by the company where as they are involved in the manufacture of most hazardous products.
See for details Gouri Shankar, Human Rights Accountability of Transnational Corporations" in K.P.Saksena, (Ed), Human Rights: Perspective and Challenge (199) p.186 at p.191.

CHAPTER X

INTERNATIONAL POLICIES AND INDUSTRIAL POLLUTION

International attempts to protect the environment were initially aimed at conservation rather than control of pollution.¹ Industries being considered strictly a matter for separate nations, international concern did not figure until industrial activities showed transboundary impact. Though Trial Smelter case² is an earliest evidence of such impact, international steps to control such effects did not get momentum until Stockholm Conference in 1972.³ The Pre-Stockholm measures for pollution control concentrated on the protection of marine environment from oil pollution⁴ as well as liability for radiation and

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1. Patricia W. Birnie and Alan E. Boyle, International Law and Environment, (1992), p.1.
For example, Convention for the Protection of Birds useful to Agriculture (Paris) 102 BFS 969.
 2. 35 A.J.I.L. 684 (1941).
 3. Declaration of the U.N. Conference on Human Environment 1972, for the text see British Institute of International and Comparative Law, Selected Documents on International Law (1975).
 4. International Convention for the Prevention of Pollution of the Sea by Oil (London) 1954 is the first in the series followed by Convention on the High Seas 1958; International Convention Relating to Intervention on the High Seas in cases of Oil Pollution Damage (Brussels) 1969; International Convention on Civil Liability for Oil Pollution Damage 1969 etc.

nuclear hazards.⁵ Identification of industrialisation and indiscriminate application of science and technology as the principle cause of environmental pollution by mid-sixties resulted in rapid steps by different organs at the global and regional levels.⁶ The policy included steps for protecting the global commons like marine environment from indiscriminate dumping of industrial waste, Antarctic region from scientific and technological misuse and also preventing transboundary pollution by imposing liability. After Stockholm Conference, United Nations activities in the field of industrial pollution concentrated on global issues like waste disposal, global atmospheric changes and transboundary pollution.

Today it is proved beyond any doubt that industries, whether in developed or developing countries, cause pollution having environmental impact at the global level. It induces greenhouse effect and ozone depletion when gases like chlorofluorocarbons (CFCs) are discharged indiscriminately without adopting adequate measures resulting in global atmospheric changes such as temperature rise and rise in ocean levels.⁷

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5. Convention on Third Party Liability in the Field of Nuclear Energy (Paris) 1960; Radiation Protection Convention (ILO), 1960; Convention on the Liability of Operators of Nuclear Ships 1962; Vienna Convention on Civil Liability for Nuclear Damage, 1963 etc.
 6. Gopeshnath Khanna, Environment Problems and the United Nations (199) p.2.
 7. See for details Chapter I pp. 27-31

Industrial pollution considered to be a local or national problem with local consequences have international implications as the hazards of industrial advances cross the limits of national control demanding international efforts.⁸ Transboundary long range pollution and global effects such as ozone depletion and greenhouse effect are the global consequences of industrial pollution. It also causes depletion of natural resources impairing conservation policies. Types, nature and effects of pollution thus stand for itself to prove the role of industries as an all rounder in the environmental quality degradation.⁹ What is required is protecting man and his environment from the hazards of indiscriminate, unscientific and unsustainable industrialisation.¹⁰

8. Supra. n.6 p.1. and p.10. See also Environmental Policy and Law 24/5 (1994), p.234.

9. "Environmental Perspective to the Year 2000 and Beyond" Environmental Policy and Law 17/3/4 (1987)

10. The Report of U.N. Secretary General identified three basic causes for the deterioration of human environment such as (1) accelerates population growth (2) increased urbanization and (3) the extended horizon of new technologies with their associated increases in demand for space, food and natural resources (Resolution 2581).

Stockholm and Industrial Pollution

Aftermaths of industrial revolution and environmental degradation resulting from pollution formed the central theme of debate right from the first session of the preparatory committee¹¹ for Stockholm Conference. Environmental consideration in the choice of location of new industries with particular emphasis on new industries in areas of lower industrial concentration was recommended by the committee in its discussion on Development and Environment.¹² The Conference held at Stockholm further discussed these matters in the light of diverse opinions put forward by developed and developing nations to bring out finally a 'Declaration on Human Environment'.¹³ The principles laid down are 'guidelines for action' by national governments and international organisations.¹⁴

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11. UN DOC/A/Conf.48/PC/SR-I, 10th March 1970 as given in supra. n.6 at p.23.
It was identified as the new crisis of the new are that can be effectively controlled by new economic policies supported by new legal and administrative measures.
 12. Id., p.35.
 13. British Institute of International and Comparative Law, Selected Documents on International Environmental Law (1975) Stockholm Conference was held from 5-16 June 1972, 113 countries participated in the Conference and unanimously agreed for 'Declaration on Human Environment' after heated discussions on important issues raised by nations.
 14. Ibid. Stockholm Declaration laid down 27 Principles and an Action Plan of 109 Recommendations.

United Nations Environmental Programme constituted by the United Nations carried out the implementation process and had a significant role to play in the control of industrial pollution.

The Stockholm Declaration dealt with pollution generally and held that sustainable development requires safeguarding of the natural resources including air, water, land, flora and fauna for the benefit of present and future generations through careful planning and management. Controlling the discharge of toxic or other substances and heat as well as preventing pollution of the sea are among other things the measures obviously essential for the control of industrial pollution. The crux of control of industrial pollution lies in the fact that sovereign right of nations to exploit their own resources should in no way cause damage to the environment of other states or areas beyond the limits of national jurisdiction. It also insisted on international co-operation to develop principles of liability and compensation in cases of transboundary pollution. Action Plan contains the global environmental assessment programme (earth watch), environmental management activities; and international measures to support the national and international actions of assessment and management.¹⁵

15. Gopesh Nath Khanna, op.cit., p.68; see also supra. n.1 p.47.

Alerting the Governments to the climatic effects of activities Action plan instructed Governments to use the best practicable means available to minimise the release of toxic or dangerous substances.¹⁶ Standard fixing for pollutants of international significance should be done taking into account the relevant standards proposed by competent international organisations. In the case of pollutants having transnational effect consultation with other concerned Governments as an additional¹⁷ is necessity. Inter-governmental co-operation in assessing the nature of pollutants, educational and technological assistance, International Registry of Data on Chemicals in the Environment registry of releases to the biosphere of the quantities of radioactive materials are the other suggestion.¹⁸ Thus earth watch for industrial pollution effects is intensified from all sides.¹⁹

Action plan specially dealt with marine pollution and insisted that instruments for control of marine pollution are

16. Supra. n.13. Recommendations 70 and 71. The concept of best practicable means has been applied in the case of noise pollution under the Control of Pollution 1974 in Britain Section 72. Environmental Protection Act, 1990 (Part I) adopted the same.

17. Ibid.

18. Ibid. Recommendations 73 to 79.

19. Ibid.

to be accepted and implemented by nations.²⁰ Resolutions were also passed to take stern steps with regard to transboundary pollution.²¹

Priorities for a Decade: The Nairobi Declaration

Nairobi Conference looked back to the decade after the 1972 Stockholm Conference and tried to find out the successes and failure of the United Nation's programme and that of United Nation's Environmental Programme (UNEP) during the time.²² While increasing environmental awareness was the achievement of the decade, the Nairobi Conference noted that²³ the result of the Action plan were not satisfactory. The Nairobi Declaration laid down the priorities for action for the U.N. System during the period 1982-1992. Considering the risk of serious pollution and natural resource degradation from inappropriate

20. Id., Recommendations 86, 96. Also see supra. n.6 at p.74.

21. Id., pp.34, 35.

22. Nairobi Declaration, 22 I.J.I.L. 468 (1982)
To commemorate the Tenth anniversary of the Stockholm Conference, 1972 the world community of States assembled in Nairobi from 10 to 18 May 1982.

23. "The Environment in 1982 - Retrospect and Prospect Decision" in Id., p.471.
An evaluation of institution like Global Environmental Monitoring System, Global Atmospheric Research Programme, International Referral System, International Register of Potentially toxic chemicals, International Programme on Chemical Safety etc. is made.

industrial development and existing industries, steps were proposed for impact assessment, development of nonwaste and low-waste technologies, principles of guidelines for environmental management of industry, handling and disposal of toxic and dangerous materials, access to technological achievements and promotion of environmentally sound practice in international trade and investment.²⁴ For protecting the atmosphere it needed integrated monitoring of atmospheric pollutants and their effects as a priority action.²⁵

Waste Disposal

London Dumping Convention and Basel Convention are the two major developments that United Nations introduced for the control of pollution caused by indiscriminate disposal of waste. Both these conventions deal with matters related to control of dumping and disposal of hazardous waste. London Convention²⁶ aimed at regulation of deliberate waste disposal into the ocean from vessels, air crafts, platforms or other man made structures at sea. Such control over dumping became essential because industrialised nations thought dumping of waste at sea to be the safest way of disposing off the huge quantities of industrial

24. Id., pp.474-478.

25. Ibid.

26. Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 12 I.J.I.L. 647 (1972) London Dumping Convention was adopted in 1972 and came into force in 1975.

waste. Moreover, sea bed and sub-soil thereof are beyond the limits of national jurisdiction.²⁷ The convention made it obligatory on the part of parties to promote the control of such pollution.²⁸ For this purpose wastes are classified on the basis of its hazardous nature. The Convention prohibited the dumping of certain wastes totally while in some cases it was permitted with prior special permit and in still others with prior general permit.²⁹ The Convention also contained measures to deal with transboundary pollution.³⁰ A Controversial subject of discussion yet to be decided is the total prohibition of low and medium level radio-active wastes.³¹

27. Ibid. U.N.General Assembly Resolution 2749 (XXV).

28. Id., Article I.

29. Id., p.649 (Article IV).

Annexure I gives a list of prohibited wastes. It includes (1) organihalogen compounds, (2) mercury and mercury compounds, (3) Cadmium and its compounds, (4) persistent plastics and other such synthetic materials, (5) crudeoil, heavy diesel oil etc, (6) highlevel radio-active wastes and (7) materials for biological and chemical warfare. Annexure II and III gives the details of waste permitted under special and prior general permission.

30. Id., p.652 Article X and XII.

31. For details see Malcolm J.Forster, "In the Ranks of Tuscany", Environmental Policy and Law, 16/1/1986,p.7; See also infra n.32.

At the thirteenth consultative meeting held at a series of major decisions were taken on a variety of issues such as:³²

1. Phase out of industrial waste dumping by 1995;
2. Sub-sea bed burial of radio-active wastes;
3. Transboundary movement of hazardous wastes and
4. Phase-out of ocean inceneration.

Basel Convention³³ considered the transboundary movement of hazardous wastes. Under this convention restrictions are imposed on the free movement of hazardous wastes.³⁴ It also gives the characteristics of a hazardous waste.³⁵ The convention lays down certain obligations of the parties while importing or exporting hazardous wastes. Packaging is labelling or the wastes are made compulsory. It is the duty of State of export to notify the proposed transboundary movement of hazardous wastes

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32. IMO/LDC More Protection for Marine Environment", Environmental Policy and Law, 21/1(1991) p.8. By Resolution the countries have agreed to phase out industrial waste dumping. It also has defined "industrial waste".
 33. Basel Convention on the Control of Transboundary Movement of Hazardous Wastes and their disposal 29 I.J.I.L. 166 (1989) p.28 ILM, 649 (1989).
 34. Annexure I and II contains a list of hazardous wastes, Id., pp.188-189.
 35. Id., pp.190-191. The list of hazardous characteristics such as explosives, flammable liquids, flammable solids, oxidizing, poisonous (acute) and infectious substance corrosives, toxic, toxic (delayed or chronic) and ecotper.

to which the State of import shall respond in writing consenting to the movement with or without conditions.³⁶ In case of any difficulty in the course of transboundary movement, the exporting party is duty bound to take it back.³⁷ Any transboundary movement of hazardous wastes from parties to the Convention without following the provisions laid down is declared as illegal traffic. Thus it is the duty of parties to co-operate with each other in order to improve and achieve environmentally sound management of hazardous wastes and other wastes³⁸ by adequate measures and set out goals.³⁹

The goals include minimising the generation of hazardous wastes, reducing their transboundary movement. Self sufficiency in disposal at the national level, requirement of prior informed consent of the receiving country and end to the exports or imports of waste to or from a non-party State without agreement are the other goals of the Basel Convention. Matters relating to liability and compensation were left to be developed by UNEP after indepth analysis.⁴⁰

36. Id., p.163.

37. Id., p.169.

38. Id., pp.176-177.

39. "Basel Convention - As More Action?", Environmental Policy and Law, 23/1 (1993) p.12.

40. "Liability and Compensation: Progress on Protocol", Environmental Policy and Law, 21/2 (1991) p.49.

Marine Pollution:⁴¹

Third United Nation's Convention on the Law of the Sea (UNCLOS III) the umbrella convention for the control of activities affecting the marine environment.⁴² The main threat to the marine environment came from land. Thus Part⁴³ XII of the Convention dealt with protection and preservation of the marine environment which is an obligation of the State.⁴⁴ States have the sovereign right to exploit their natural resources with an incumbent duty to protect and preserve the marine environment.⁴⁵ Therefore states are to take measures to prevent, reduce and control pollution of the marine environment from any source using the best practicable means at their disposal⁴⁶ ensuring that their activities do not cause damage to other states.⁴⁷

41. For the text see UNCLOS, 1982 (U.N.Document No.A/Conf.62/122 221 J.I.L.I. 491 (1982)).

42. "UN/GA 45th Session", Environmental Policy and Law 21/1 (1991) p.3.

It is in the near shore and coastal areas, the most productive zones of the world's oceans, that the worst instances of marine pollution and ecosystem destruction are to be found.

43. Supra. n.41 at p.567.

44. Ibid. (Article 192).

45. Id., p.568 (Article 193).

46. Ibid. (Article 194 (1)).

47. Ibid. (Article 194 (2)).

The measures to be taken thus also included measures for the control of industrial pollution.⁴⁸ The conference imposed a duty not to transfer damage or hazards or transform one type of pollution into another and not to use of technologies that may result in the environmental harm.⁴⁹ Global or regional co-operation has to be ensured by adopting measures to that effect. It includes, technical assistance to developing states and adequate measures for monitoring the effect of pollution⁵⁰ UNCLOS III dealt with six sources of pollution⁵¹ suggested enforcement mechanisms and safeguards.

Global Atmospheric Changes

Industrial pollution and atmospheric changes have close connexion. Manifestly, United Nation's initiatives to reduce global atmospheric changes have significant role. They got

48. Ibid. (Article 194 (3) The measures shall include, inter alia, those designed to minimize to the fullest possible extent

a) the release of toxic, harmful or noxious substances, especially those which are persistent, from land based sources, from or through the atmosphere, or by dumping,

49. Id., Articles 195,196.

50. Id., Articles 197-206.

51. Id., Section 5 (Articles 207-212).

Such as: land based sources; sea-bed activities within national jurisdiction, pollution from activities in the Area (beyond national jurisdiction); pollution from dumping pollution from vessels and pollution from or through the atmosphere.

momentum with the scientific conclusions that ozone layer is depleting as a result of the continuous interaction of air pollutants.⁵² Thus the Conference of plenipotentiaries on the Protection of Ozone Layer was convened by UNEP in 1985⁵³ which adopted the Final Act as well as Resolution on a protocol concerning chlorofluorocarbons.

Vienna Convention⁵⁴ provides a foundation for global multilateral undertakings to protect the environment and public health from the potential adverse effects of depletion of stratospheric ozone.⁵⁵ The Convention obliged the parties to take measures for protecting human health and environment against adverse effects of human activities including industrial

52. See for details Chapter I pp.27-31.

53. 26 ILM 1520 (1987) UNEP adopted 12/14 dated 28th May 1984 deciding to convene the conference at Vienna from 18 to 22 March 1985.

54. For the text of the resolution see 26 ILM 1516 (1987). This Convention was opened for signature on 22/3/1985.

55. "Message from the President of the United States" . Vienna Convention For the Protection of the Ozone Layer, 26 ILM 1518 (1987).

activities that affect the ozone layer.⁵⁶ It called for co-operation in many fields.⁵⁷ Thus the Convention creates a framework for international co-operation in reducing the emission of chemical substances⁵⁸ of natural or anthropogenic origin thought to have the potential to modify the chemical and physical properties of the ozone layer. Second meeting of the Vienna Convention⁵⁹ requested the parties to facilitate expansion of ozone layer stations by bilateral and multilateral treaties.⁶⁰ By the time the Third Meeting of Parties to Vienna Convention was held, a tremendous increase in the number of developing countries joining the Convention would be noticed.⁶¹ A protocol on CFCs was negotiated as a Protocol to the Vienna Convention for protection of ozone layer and was adopted Montreal⁶² in 1987 which established specific obligations.

56. Id., Article 2.

57. Id., Article 2-5. Such as exchange of information in legal, scientific and technical fields.

58. Id., p.1538 (Annexure I gives a list of such substances such as: Carbon monoxide, carbon dioxide, methane, non-methane hydrocarbon species, nitrous oxide, nitrogen oxides, chlorine substances and bromine substances.

59. "Vienna Convention: Second Meeting of Parties" Environmental Policy and Law, 21/5/6 (1991) p.250.

60. Ibid.

61. Environmental Policy and Law, 24/2/3 (1994).

62. 26 I.L.M. 1541(1987). It is called the Montreal Protocol and was adopted by decision 13/18 by UNEP on 23 May 1985.

This protocol set up specific guidelines for reducing the consumption and production of CFCs and Halons.⁶³ It was the first international treaty which proposed to overcome the threat of ozone depletion over a definite period of time. The control measure directed each party to ensure that the consumption of controlled substances does not exceed the calculated level of consumption in 1986 and prescribed time limit for such reduction.⁶⁴ It controlled trade with non-parties⁶⁵ whereas it treated specially the situation of developing countries.⁶⁶

In the Helsinki Declaration which followed,⁶⁷ the parties to Vienna Convention and Montreal Protocol agreed to phase out the production and consumption of CFCs as soon as possible but not later than the year 2000 and for that purpose to lighten the time table agreed upon in the Montreal Protocol. Giving special consideration to developing countries, they also agreed to phase out halons as well as control and reduce other ozone

63. 26 I.L.M. 1551 (1987) Article 2.

64. Id., p.1553. Thus GI substances has to be brought under control much earlier than the G II substances. The idea is to reduce the ozone depleting potential considerably by 2000.

65. Id., p.1554.

66. Id., p.1555 (Article 5).
Thus one consuming less than 0.3 kg per capita or the date of entry into force of the protocol or any time thereafter within ten years shall be entitled to delay its compliance with the control measures by ten years. However, it shall not exceed the annual calculated level of 0.3 kg.

67. The Helsinki Declaration was adopted at the meeting of States participating in the Vienna Convention and the Montreal Protocol (First Meeting of Parties).

depleting substances as soon as feasible.⁶⁸ This declaration seems to be concerned about the hardship of developing countries. Not only did it decide to develop environmentally acceptable substitute chemicals, products and technologies but also did it take steps to possible and facilitate scientific information, training and transfer of technology to developing countries.⁶⁹ Though London meeting went a step forward in reducing the time limit, it failed to get ratified promptly.⁷⁰

These meetings are significant in recognising the concern of the developing nations⁷¹ and in planning a compilation of trade names of substances controlled by Montreal Protocol.⁷²

The Copenhagen Amendment⁷³ to the Montreal Protocol is the next milestone in reducing ozone depletion. Thus by 1994 the Montreal Protocol was ratified by 129 parties covering 90% of the world population and nearly 90% of the ozone depleting substances were covered. 69 parties had ratified the London amendment and the Copenhagen amendment which advanced the time

68. Ibid.

69. Ibid.

70. Supra. n.38.

71. Montreal Protocol: Third Meeting of Parties, Environmental Policy and Law, 21/5/6 (1991) p.251(Decision III/8)

72. A technical and Economic Assessment Panel is constituted. This committee is operating under decision 11/13 of the Second Meeting at London.

73. Environment Policy and Law, (1993) p.6

schedule for the phase out of many ozone depleting substances.⁷⁴ By the time 6th meeting of the parties to the Montreal Protocol was held at Nairobi the significance of Montreal Protocol in arousing environmental awareness among the developing countries is clearly evident.⁷⁵

The Seventh Meeting of the Parties to the Montreal Protocol, the latest in the series,⁷⁶ ignored out further steps in protecting the ozone layer.⁷⁷ The Meeting adopted new reduction schedules for a number of ozone-depleting substances⁷⁸ and is thus a step ahead in implementing the Copenhagen Amendment.

Montreal Protocol and its amendments from time to time are significant landmarks in-phasing out of ozone depleting gases from the atmosphere. This parties to the Protocol are divided into two developed or industrialised countries and

74. Environmental Policy and Law, 24/2/3 (1994)

75. "Ozone Protocol: Sixth Meeting of the Parties" Environmental Policy and Law 25/2 (1995) p.21.

76. "Montreal Protocol-Vienna Meeting" Environmental Policy and Law 26/2/3 (1996) p.66

77. Ibid.

78. Id., p.67. These schedules will be inserted into the Protocol by adjustment and will therefore enter into force without ratification.

developing countries and separate schedules were fixed for the phase out programme.⁷⁹ The international community also accepted the disastrous role of developed countries in causing industrial pollution through ozone depletion. The obligation of the developed nations to take immediate steps were emphasised. In spite of these developments the control were deemed insufficient by a number of parties.⁸⁰

Concern for climate change

It has already been seen that industrial pollution causes green house effect by leaving into the atmosphere gases like carbon di-oxide, which leads to climate changes. United Nations recognised that climate change is a common concern of mankind, since climate is an essential condition which sustains life on earth⁸² and emphasized the need to begin, as a matter of urgency, the drafting of a framework convention on climate change.⁸³ Measures adopted by the United Nations resulted in the formulation of Intergovernmental Negotiation Committee

79. See the table given on the other page.

80. Supra. n.76 at p.67.

81. 28 I.L.M. 1326 (1989).

Based on the Report of the World Commission on Environment and Development, United Nations General Assembly adopted the Resolution on Protection of Global Climate for the Present and Future Generations of Mankind.

82. Ibid. U.N. also noted with concern the continued growth in atmospheric concentrations of 'greenhouse' gases producing global warming.

83. Ibid.

which made a series of negotiations. As a result the need for reducing CO₂ emissions were widely felt. It is also reported that even more drastic reductions in CO₂ emissions would be needed to stabilise atmospheric concentration at the present day level.

Even though serious divergencies persisted, the preliminary steps for a draft convention were initiated.⁸⁴ At the Fifth Session of INC the frame work convention on climate change got adopted⁸⁵ and ready for signature at Rio-Summit. The ultimate objective is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous and anthropogenic interference with the climate system. This frame work convention dealt with detail with the principles that are to guide the parties and the obligations they should follow to achieve the goals. A machinery for functioning under the convention is also envisaged in detail. At Rio, Summit. The ultimate objective is to achieve stabilization

84. Danial Bodansky, "Draft Convention on Climate Change", Environmental Policy and Law, 22/1 (1992) p.5 at p.5. See also Sebastian Oberthnir, "Climate Negotiations: Progress Slow", Environmental Policy and Law, 21/2 (1991) p.193 at p.196.

85. "United Nations Framework Convention on Climate Change" Environmental Policy and Law, 22/4 (1992) p.258. See Articles, 2-4, 8 and 11.

of green house gas concentrations in the atmosphere at a level that would prevent dangerous and anthropogenic interference with the climate system. This framework convention dealt with the principles that are to guide the parties and the obligations they should follow to achieve the goals. A machinery for functioning under the convention is also envisaged in detail. At Rio, 153 States and the European Community signed⁸⁶ the climate convention. In contradiction to what was said in Montreal Protocol about controls on ozone depletion, the climate convention did not provide for specific time-tables and targets for limiting emissions of greenhouse gases by industrialised countries.⁸⁷ Because of such absence of clear commitment by industrialised countries. European community entered its own target to reduce CO₂ emissions to 1990 level by the year 2000.⁸⁸

Transboundary Pollution

In modern times industrial pollution may assume trans-national dimension. The industrial establishment may be within a state. And if an accident occurs, just as the Chernobyl disaster, its impact beyond the boundaries of the State are imminent. Trans-boundary pollution may be air pollution or water pollution.⁸⁹

86. "UNCED Rio Conference on Environment and Development"
Environmental Policy and Law, 22/4 (1992) p.204 at p.207.

87. Ibid.

88. Ibid.

89. See for details supra, Chapter I.

International approach to pollution was governed by the maxim 'sic utere tuo, ut alienum non laedas'⁹⁰ or principles of good neighbourliness. In Trial Smelter Arbitration case, first instance of transboundary air pollution.⁹¹ The Tribunal evolved a new principle of international forms of air pollution.⁹² However, its failure to prescribe minimum international standards for transboundary pollution, limited its further use.⁹³ The principle could not gain much progress mainly because transboundary pollution was considered more as a bilateral or multilateral problem and states preferred to facilitate redress for the transboundary injury through civil remedies. But the inherent defects of transboundary tort actions for damages namely, the difficulty of identifying the specific polluter, frequency of such transboundary interference and the long range effect of transboundary pollutants necessitated steps to mitigate the problem at global level. Acceptance of this global duty generated by principle 21 of Stockholm Declaration, reiterated in the subsequent United Nations resolutions, conventions and programmes.⁹⁴ But approach to transboundary pollution is more streamlined to regional efforts by U.N. specialised agencies

90. "Use your own property in such a manner as not to injure that another". Black's Law Dictionary (1961), p.1551.

91. Supra. n.2 at p.716.

92. Ibid. The tribunal held that 'not state has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein.

93. Supra. n.2 at p.699.

94. For example UNCLOS III and Vienna Convention. Also see UN/GA.44th, 45th and 46th session etc.

like Economic Community of Europe and International Law Commission.

The constant fear of acid rain which European countries experienced led to regional co-operation in the control of transboundary air pollution. It is mainly to combat acid rain that a regional convention for European Country, called Geneva Convention or Long Range Transboundary Air Pollution 1979, laid down norms for the regulation and control of air pollution. State with potential to be more causing sulphur pollution should consult state likely to be affected.⁹⁵ The connection provides for exchange of information⁹⁶ and developing policies and strategies to combat transboundary air pollution.⁹⁷ The countries participating committed themselves to undertake reduction of national annual sulphur emissions, especially SO₂, by at least 30% as soon as possible and at latest by 1998. Effective reduction of emission of NO_x from stationary and mobile sources is to be undertaken as soon as possible, but not later than 1993.⁹⁸ The 1979 convention is later followed by its 1987 Helsinki Protocol on control and reduction of SO₂⁹⁹ and 1989 Sofia Protocol on control and reduction of NO_x,¹⁰⁰ water pollution beyond one's state boundaries is caused by industrial effluents in addition to agricultural run off or

95. 18 I.L.M. 1442 (1979) Article 8.

96. Id., Article 3.

97. "Acid Rain Meeting" (Conference held on Acid Rain in Ottawa on 20-21 March (1984), Environmental Policy and Law, 12 (1984) p.71.

98. Id., p.72.

99. 27 I.L.M. (1988) 608.

100. Ibid.

domestic sewages. But, in the past, law on international water courses envisaged only the allocation and equitable utilization of water as a natural resource.¹⁰¹ Discharge of certain toxic substances especially if they are persistent or highly radioactive was the only prohibited pollution. In other cases, an act of polluting is wrongful only if that act infringed the rights of other States.¹⁰²

But, protection of international water courses from the environmental perspective a deviation from the traditional equitable utilization principle¹⁰³ in order to balance the right to utilize international water course with the duty not to cause appreciable harm to similar rights of other states. International Law Commission¹⁰⁴ played an active role to evolve the new principle of transboundary water pollution. The commission secured to have followed the maxim. Sic Uters tuo, ut ut alienum nonlaedes¹⁰⁵ when it provided that water course

101. 21/5/6 (1991) p.247.

102. Id., p.226.

103. Id., p.229.

104. "Report of the ILC to General Assembly (1988) 18 Environmental Policy and Law (1988) p.197. International Law Commission included the topic "The Law of the non-navigational uses of international water courses" in its programme of work at its twenty third session, in 1971 in response to the recommendation of the General Assembly in resolution 2669 (XXV) of December 8, 1970. Environmental Policy and Law, 21/5/6 (1991), p.191.

105. Supra. n.90.

without effecting the use of other states of the same water course.¹⁰⁶ Co-operation and exchange of information have to be the basic principle of equitable utilisation.¹⁰⁷ Notification to the States likely to be affected except in utmost urgency is necessary when State implements a planned measure. The commission's recommendations had dimension.¹⁰⁸ United Nation's effort to control transboundary water pollution took a new turn when the EEC came forward with the idea to provide guidance for the competent authorities in individual states in their task of protecting transboundary inland waters against pollution resulting from hazardous activities in case of man-made accidents or natural disasters and in mitigating their impacts and aquatic environment.¹⁰⁹ It is noteworthy that management of international water courses is achieved more effectively by the regional co-operation for example regional River commissions.¹¹⁰

106. "The Law of the Non-navigational Uses of International Water Courses" Article 3. Environmental Policy and Law, 21/5/6 (1991) p.247.

107. Id., Articles 8 and 9.

108. Id., Pollution of an international water course means any detrimental alteration in the composition or quality of the waters of an international water course which results directly or indirectly from human conduct. Thus States are to establish a lists of polluting substances that are to be prohibited, limited, investigated or monitored. Harmonisation of policies individually and jointly is also required. See Article 21 and 23.

109. ECE Code of Conduct of Accidental Pollution of Transboundary Inland Waters, 1990 DOC.E/ECE/1225; ECE/EN/VWA 116 as given in Alfred Rest, "New Tendencies in Environmental Responsibility/Liability Law", Environmental Policy and Law 21/3/4 (1991) p.135 at p.136.

110. The International Commission for Protection of the Rhine, The U.S.Canadian International Joint Commission, The Zambezi River System.

Environmental Impact Assessment in a Transboundary Context

This convention¹¹¹ mandates bilateral and multilateral environmental impact assessment for new large-scale construction projects. There may be a range of proposed activities that are likely to cause significant adverse transboundary impact. These may include oil refineries, pioneer stations, nuclear installations, smelters and waste disposal installations. In 1991 a convention was called to formulate law to make Environmental Impact Assessment in such a context. The convention requires each party to establish an EIA procedure that permits public participation and the preparation of environmental impact assessment. Other States likely to be affected must be notified and given the opportunity to enter into consultation and make representation on the assessment. This must be taken into account in any final decision on the proposed activity. The Convention also provides for activities not listed to be the subject of prior assessment if the parties agree. The parties shall, either individually or jointly, take all appropriate and effective

111. The fourth session of the Senior Adviser to ECE Governments on Environmental and Water Problems convened in Espoo (Finland) from 25 Feb-1 March 1991 adopted the convention. But has not yet come into force. UN/ECE Senior Adviser, "In the 4th Session: Progress on Treaties", Environmental Policy and Law, 21/2 (1991) p.53.

measures to prevent, reduce and control significant adverse trans-environment impact act from proposed activities. This implied a general obligation on the part of state to act with due diligence. Requirement of EIA is also insisted by International Law Commission draft and UNEP 'Principles'.

European Economic Community (EEC)

EEC had really no environmental policy when it journeyed and worried on other matters, from Rome in 1957 to Stockholm in 1972.¹¹² The European Community move for single market¹¹³ by eliminating technical barriers within the community included directives laying down community wide environmental regulatory standards.¹¹⁴

The Action Programme once laid down, the community activities proceeded further mainly through Directives issued from time to time.¹¹⁵ These Directives on various aspects of

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112. "Icons: Myth and Practice", (1994) J.P.L. 6 at p.15. Haegerama, The European Community's Environmental Policy A case study in Federalism, 12 FORDHAM INT'L L.J. 311, 315 (1989), See also Kramer, Focus on European Environment, (1992) p.4.
113. Article 100 of the EEC treaty grant authority to the council to preside over all matters that directly affect the establishment or functioning of the common market including environmental matters. (Directive No.75/716, O.J.COMM.EUR (NO.L.307) 22 (1975). It was at the Paris Summit on 19 and 20 October 1972 that Heads of States emphasized the importance of a community Environmental Policy.
114. "EC Environmental Policy Report" 21 GA J.INT'L & COMP.L. 285 at 292.
115. Till 1991 EEC has already adopted in the field of environmental protection 125 directives compared to 25 regulation. "EEC's policy on Implementation of Environmental Directives" 14 Fordhan International L.J. 455 (1990-91).

environmental protection constitute the continued community action aimed at enforcing the right to clean environment.¹¹⁶ The council has adopted an environment protection programme covering health and ecological effects of pollution, the assessment of chemicals, aspects of air,¹¹⁷ water¹¹⁸ pollution and of soil quality management research into noise pollution and also the functioning of ecosystems management of waste ¹¹⁹ (including hazardous wastes and the care of abandoned disposal sites).

116. Kramer, op.cit., p.9.
According to him the three areas that came manifestly under the right to clean environment are the right to information, the right to consultation and individual right to complaint.
117. Directive 76/464, O.J. 1976 No.L.29/23 on Water Pollution.
118. Between 1980-85 three directives were passed on limit values for air pollution by SO₂ and suspended particles (D. 80;779, O.J.1980, No.224/30) for lead and CO₂ (D. 82 884 O.J.1982, No.L.378/15) for NO₂ (D.85;203, O.J. 1985, No.L.87/1).
119. Thus D.78/319 (Art.9) O.J.1978 No.L.84/43 directed the Member States to draw up, keep up to date data and publish plans for the disposal of toxic and dangerous waste, Again D.79/831 (Art.2 (2)(k) demanded labelling of chemical substances as dangerous to the environment.

It is noteworthy that exchange information formed the firm root of most of these directive where participation by individuals in decisions and opportunities for individuals to bring formal complaints are restricted.¹²⁰ The provisions are made upto date by amending the directives from time to time.¹²¹ Thus once the environmental policy is incorporated into EEC treaty several noteworthy steps are adopted.¹²² Guidelines for specific industrial processes, authorisation to operate polluting industries, licence for a new factories, application of Criminal law

120. Kramer, op.cit., p.23.

The only rule for examination of the application for consent for certain public and private projects is provided under Art.6(2) of D.85/337 whereas the council adopted texts establishing an exchange of information concerning the quality of surface waters as early as in 1977. Directives were issued from time to time providing for the communication of information to the commission as well as annual publication by it of a summary report (D.80/779, 378/15, 85/203, O.J. 1985 No.L. 87/1). Again D.84/360 provided that application for authorisation to operate installations which pollute the air, shall be made available to the public concerned.

121. For example Directive 80/214/EEC amended Directive 79/117/EEC prohibiting the placing on the market and use of plant protection products containing certain active substances. In connection with safety at work, Art.8 of D.82/301 O.J. 1982 No.L.230/1/ is amended by D.88/610, O.J. 1988, No.L. 336/14 on the major accident hazards of certain industrial activities while proposal O.J.No.305, 25-11-1985 seeks to lower the amount of certain dangerous substances accumulated on premises which gave rise to notification and other provisions in the Directive No.C.101/28.4.1988, p.10.

122. "EEC. Recent Developments in Environmental Policy" Environmental Policy and Law 5 (1979) p.44.

to the polluters establishing Environmental Courts locus standi to environment protection groups, control of radio active waste and monitoring pollution from industrial discharges etc to name a few.

EEC Environmental Policy and Member States

Industrial pollution being a severe threat, EEC Member States had already imposed stringent measures for control of pollution. Some of them even adopted use of market mechanisms of economic incentives to anti-pollution measures in addition to the regulatory policy¹²³ EEC later adopted the progressive measures this followed by its members as general directions. However, individual states are permitted to opt out of a harmonized standard for reasons of environmental protection.¹²⁴ In the wake of a series of accidents and growing public concern for the protection of the environment. European Community adopted in 1982 'Seveso Directive' which classified potentially hazardous installations into two types. It is a significant step and each country in the EC has enacted legislation implementing the Seveso

123. John B. Nicholson, "EEC Environmental Policy Report" op-cit., p.285. In the market mechanism, economic and fiscal instrument are used in the environmental policy. They are in the form of ecotaxes or greentaxes.

124. Article 100a (4): "If after the adoption of a harmonization measure by the council...a Member State deemed it necessary to apply national provisions...relating to protection of the environment...it shall notify the commission of these provisions". EEC Treaty Article 100 a (4) added by Single European Act.

Directive.¹²⁵ The Heads of Government and States of EC agreed to make environmental protection one of the community's formal responsibilities. This led to the measures in 1987 amending the Treaty of Rome, the fundamental law of EEC, incorporating Environmental Title and saving the way for harmonisation of member states' legislation.¹²⁶ Action by the community relating to the environment shall be based on the following principles.¹²⁷

(1) Preventive action, (2) Environmental damage to be rectified at the source, (3) the polluter should pay, (4) the environmental protection requirements shall be a component of the community's other policies.

It also formulated the criteria to be considered before undertaking any environmental action.¹²⁸ Polluter pay principle was

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125. Social Protection and Working Conditions, World Labour Report, p.78 (EC and the Seveso Directives). This classified potentially hazardous installations into two types depending on the degree of risk. At the lower level sites, the management is effectively left to make its own arrangements but must be able to prove to the authorities at any time that it has identified major accident hazards and provide workers with information and training. In the case of high risk sites, if an installation uses certain dangerous substances beyond a threshold gravity, it has to notify the competent authority and give a report on the safety measures it is taking.
126. Single European Act, O.J.L.169/1/(1987) 25 I.L.M. (1986),506. See Kramer, op.cit., p.50 See also Jean Paul Jacque, "The Single European Act and Environmental Policy" Environmental Policy and Law 16/3/4 (1986) p.122. Thus the Single European Act, 1987 amended the Treaty by inserting Title VII referred to as the "Environmental Title". It also added a specific reference to environmental protection in the new article 199 (a) on the harmonization of Member States legislation.
127. Id., Articles 130 (2) and (3) of Single European Act, 1987.

already noted in 1973 but the Single European Act reiterated it in 1987.¹²⁹ Control of Pollution, waste management and restricting global warming formed its ultimate goal to be achieved through the above principle.

OECD and Control of Pollution

The credit of instituting some of the most significant steps¹³⁰ in the control of industrial pollution goes to OECD¹³¹ OECD (Organisation For Economic Co-operation and Development) formed by the convention of 14th December 1960 has its members Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luzembourg which OECD established an Environment Committee on 22nd July, 1970¹³² It set forth 'Guiding Principles to be observed by the Member countries in determining environmental policies and instructed Environment Committee to review the implementation of this recommendation. Polluter pay principle is used to internalize the environmental costs. This in turn reflects the total actual cost of a product or service.¹³³ Thus, here also a shift is visible from regulatory methods to market mechanism.¹³⁴

129. Kramer, op.cit., p.50.

130. The State of the Environment, (OECD) Paris. The Polluter pay principle is coined by OECD: Transboundary movement of hazardous waste, public liability insurance at care other examples of OECD initiatives in the area.

131. Ibid. The need was felt because rapid industrial and urban development when increased wealth on the one hand caused pressure on the environment. Netherlands, Newzealand, Norway, Portugal, Spain, Switzerland, Turkey, U.K. and U.S.

132. C(70) 135 in Selected Documents in op.cit., p.95.

133. John B.Nicholson, op.cit., p.285 at p.288.

134. Id., p.291.

OECD further emphasised the need for environmental protection measures through those recommendations for specific purposes. Thus Member States should reduce the pollution of surface waters resulting in eutrophication with particularly the problem arising from the transfer of nutrient loaded waters across frontiers.¹³⁵ Thus polluter should bear the expenses of carrying out the measures to ensure that the environment is in an acceptable state.¹³⁶

In its Declaration on environmental policy¹³⁷ OECD recognised the increasing population, industrialisation and urbanization as the cause for the growing pressure on the limited assimilative capacity of the environment. OECD considered transfrontier pollution¹³⁸ seriously and laid down principles relating to this to guide the Member

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135. Id., p.101. The steps proposed are: treatment of municipal sewage and industrial effluents including nutrient removal; decreasing the contribution from various agricultural activities; and where appropriate, control at source by product modification, as in the case of the replacement of phosphates in detergents.
136. OECD laid down this innovative principle, having regard to Art.5(b) of OECD Convention, 1960, recommendations of the Council, 1972 and the Note by the Environment Committee on the Implementation of Polluter. Pay Principle. Selected Documents, op.cit., p.10.
137. "OECD Declaration on Environmental Policy, Nov.14, 1974", Selected Documents, op.cit., p.97.
138. Transfrontier pollution refers to pollution originating in one country and having its effects within other countries.

countries.¹³⁹ The measures to be taken for the implementation of international solidarity included specific steps of significance in the control of industrial pollution.¹⁴⁰

One of the most remarkable principles laid down by OECD is that accidental pollution victims should get compensation regardless of the size and finance of the firm responsible.¹⁴¹ Pollution insurance is encouraged.¹⁴² Several member countries have already passed legislation making to provide financial guarantees for certain types of hazardous activity.¹⁴³

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139. The main objective is to induce Member states to cooperate more closely in a spirit of international solidarity for the prevention and control of transfrontier pollution. Selected Documents, op.cit., p.106-107. The Principles thus laid down in the Annex includes:
 (1) International solidarity (2) Principle of non-discrimination (3) Principle of equal right of hearing (4) Principle of information and consultation (5) Warning system and incidents (6) Exchange of Scientific information, monitoring measures and research; (7) Institutions (8) Disputes and (9) International agreements.
140. Thus implementation policy should take account of different aspects of pollution such as level of pollution, nature and quantities of pollutants, capacity of the environment etc, define environment quality objectives and protective measures; promote guidelines for land use planning and maintain upto date list of dangerous substances.
Id., p.107
141. OECD - "More Comprehensive Pollution Insurance" Environmental Policy Law 21/3/4 (1991) July p.148.
142. OECD - "Pollution Insurance and Compensation Funds for Accidental Pollution", Environmental Policy and Law, 21/3/4 (1991) p.176.
143. Supra. n.141. Germany recently adopted a law imposing compulsory insurance for hazardous installations.

Even before World Commission on Environment Development elaborately explained sustainable direction an approach to sustainable development and the exigencies of industrial pollution is a significantly seen in OECD environmental policies. Responding to the damages involved in the transboundary movement of hazardous waste, OECD laid down Recommendation on Export of Hazardous Wastes from OECD Area. The programme is to monitor and control export of hazardous wastes to a final destination which is outside the OECD Area.

World Commission on Environment and Development (WCED)

UN decision to formulate "A global agenda for change" by constituting WCED in 1983 turned out to be the most significant step in the growth of international environmental law.¹⁴⁴ Attention drawn by scientists to the complex problems like global warming, ozone depletion and green house effect added significance to the World Commission in evolving global sustainable development dictum. WCED assessed the progress already achieved by industrialised countries in the control of industrial pollution. These achievements were limited to developed countries whereas industries are fast growing in the developing countries. This tremendous industrialisation process made the existing control mechanisms inefficient. Thus in the field of industrial pollution,

144. World Commission on Environment and Development", Our Common Future (1987), p.ix.

WCED at the outset called for special attention to the inherent problems of developing countries and solving the same. Again, the fact that sources and causes of pollution are far more diffuse, complex and interrelated and the effects of pollution more widespread cumulative and chronic, global level environmental policies are to be augmented.

Other recommendation were¹⁴⁵ significant and followed up at transnational levels. Industrial activities being the first culprit for causing the global problems like ozone depletion, global warming and climate change, sustainable industrial development is to be stressed. It is the qualitative development that ensures global environmental safety which includes prima facie integration of resource and environmental considerations into the industrial planning and decision making processes of government and industry. National environmental policies incorporating environmental laws, regulations, incentives and standards are to be formulated to solve the problem of industrial hazards. Effective use of environmental impact assessment not only for the products and projects but also to policies and programmes and economic instruments as a means to interprogrammes and economic instruments as a means to internalize the costs of pollution compelling the enterprise to pay for the damages or to invest in measures to prevent the damages are suggested as mechanisms additional to regulations. Co-operation

145. Id., see pp.210, 214 and 220-226.

among the industries, trade unions and labour unions is essential for the smooth implementation of these control measures. Increasing consumer awareness establishing information centres on chemical products, strengthening the international networks of information exchange and labelling hazardous chemicals are ways of solving the problems involved in the chemical industries.

Significance of WCED Report lies in the fact that it assessed the environmental issues and needs and suggested ways to solve the problems at the national, regional and international level to achieve global environmental protection. The idea of integrating economic and ecological considerations in developmental programmes is mooted and suggested as the best available policy for the present and future generations. WCED called for transforming this report into a UN Programme of Action on Sustainable Development. The influence of this Report is clearly evident in the industrial environmental policies at all levels. The climax of the Report is found in the action taken in Rio in 1992.

United Nations Conference on Environment and Development

UNCED set the final stage for co-operating and co-ordinating the bulk of international efforts for protecting the environment since Stockholm Conference so as to compromise environment with development.¹⁴⁶ It was a timely forum for discussing sustain-

146. Ayesha Dias, UNCED, Permanent Sovereignty over National Resources, Environmental Policy and Law, 24/4 (1994) p.157 at p.159.

able development in the wake of developing countries becoming more and more conscious about it. The idea was to devise strategies that would fully integrate the relationship between environment and development into every aspect of economic life and behaviour. The important issues discussed include climate change, conservation of biodiversity transfer of technology and forest conservation.

UNCED or Earth Summit, as it is popularly called, stood for production integrated environmental protection. The Conference called for a new global partnership for sustainable development.¹⁴⁷ UNCED consisted of three elements of action.¹⁴⁸

- 1) Statement of principles in the "Earth Charter",
- 2) Formulation of global conventions such as those on climate change and biodiversity and
- 3) The agenda for action - Agenda 21.

Rio Declaration

The Rio Declaration or Earth Charter laid down the basic principles to be adopted for sustainable development.¹⁴⁹ The declaration emphasised the significance of sustainable development for a healthy and productive life. Principle 21 of the Stockholm Declaration is reiterated to stress the need for global partnership in the development activities. It identified environmentally

147. UNCED - "Rio-Conference on Environment and Development", Environmental Policy and Law, 22/4 (1992) p.204.

148. UNCED - "Preparatory Committee: Third Meeting" Environmental Policy and Law, 21/5/6 (1991) p.186.

149. UNCED Rio Declaration on Environment and Development" (final version) Environmental Policy and Law, 22/4/ (1992) p.268. Principles 1,2, 10-19.

sound development as the right choice to be achieved by co-operation among States. Exchange of information, technological and financial assistance, attention to the special situations and needs of developing countries are extra duties for developed countries. Regulatory and preventive measures significant in the control of industrial activities for environmental protection are also laid down. Thus Environmental impact assessment should be undertaken for proposed activities that are likely to have an adverse impact on the environment. Economic instruments like polluter pay principle has to be envisaged. Fixing environmental standards for pollutants ensuring liability of polluters and compensation for the victims should form national level steps for checking industrial activities. It is made obligatory on the part of States to provide prior and timely notification and relevant information to potentially affected ones when activities lead to adverse transboundary environmental effect.

UNCED and Global Conventions

The two conventions elaborately negotiated and made ready for signing at Rio Summit are the Convention on Biological Diversity¹⁵⁰ and Convention on Climate change.¹⁵¹ The convention on Biological diversity is noteworthy for the emphasis given to adoption of regulations relevant for controlling

150. Supra. n.147 at p.206.

151. Id., p.207.

industrial activities. It also accepted the idea that industrialised countries must help developing countries financially and with technological information.¹⁵²

In the control of industrial pollution, it is the convention on climate change that is of great significance. The convention aim is to protect the atmosphere from pollutant gases that trap heat from the sun.¹⁵³ But the final document did not provide for specific timetables and targets for limiting emissions of green house gases by industrialised countries.

Agenda 21

It is "an agreed programme of work by the international community addressing major environment and development priorities for the initial period 1993-2000 and leading into the 21st century."¹⁵⁴ There are several programmes envisaged under the Agenda having significance and demanding control of industrial pollution.¹⁵⁵

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152. Id., p.206. Thus countries shall adopt regulations to conserve their biological resources and impose legal responsibility upon nations for the environmental impacts of their private companies in other countries.
153. Id., p.207.
154. Id., p.208. Agenda 21 is a document of 800 pages containing 40 chapters with 115 specific clean-up programmes grouped into four parts: (1) the socio-economic dimension (habitats, health, demography consumption and production patterns etc.) (2) Conservation and resource management (atmosphere, forests, water, waste, chemical products etc). (3) Strengthening the role of NGOs and other social groups such as trade unions, women, youth etc. and (4) means of implementation (financing, institutions etc).
155. Id., pp.208-222. Chapters having relevance for the control of pollution are chapter 9 - protection of the Atmosphere, chapter 18 - protection of water resources, chapter 19- Environmentally and management of toxic chemicals , chapter 19 - 20 - Management of hazardous waste; chapter 21- Management of Solid waste; chapter 22 - Management of radio active waste and chapter 34 - Transfer of technology.

Agenda proposed activities for meeting the new challenges or the so called second generation environmental issues,¹⁵⁶ the consequence of indiscriminate industrial activities that are threats to the atmosphere.¹⁵⁷ Activities in the energy transport and industrial development have to be more environmentally friendly and agenda proposed additional and alternative measures for improving them.¹⁵⁸ The activities proposed included research and study into the processes affecting the atmosphere to develop methodologies and identify threshold levels of atmospheric pollutants and levels of green house gases; establishment of more observation stations for global atmosphere watch participation and training for developing countries and exchange of data and information.

It also proposed national level policies for EIA, sustainable land use in addition to promoting environment friendly technologies. Early warning system and response mechanism for transboundary air pollution from industrial accidents and co-operation among states in matters of transboundary water pollution are proposed by the Agenda.

156. Supra. n. The first generation environmental issues are pollution and from activities associated with poverty and under issues are identified as global warming (climate change).

157. "Agenda 21 - Selected chapters "Environmental Policy and Law, 22/4 (1992) p.275).

158. Id., pp.276-277.

For environmentally sound management of toxic chemicals and hazardous waste Agenda proposed measures such as education on chemical safety, information exchange and transfer of technology active co-operation and participation of the international community government and industry and transfer of technology from developed countries to the developing. Agenda also sought the prohibition of storage or disposal of radioactive wastes near marine environment unless it is proved that such storage or disposal poses no unacceptable risk to people and marine environment.¹⁵⁹ Strengthening the role of various sections whose participation can add to eradicate the problem of pollution at the grass roots is yet another policy envisaged for future action.¹⁶⁰ Agenda 21 called for the "green fund" at the national level for the implementation and proposed special assistance to the least developed countries.

Agenda 21 is to be implemented by the institutional arrangements envisaged under chapter 38 and it can be seen that all agencies of the U.N. have a key role to play in the implementation process.¹⁶¹ It specifically provided for NGOs participation in the implementation process and establishment of a

159. Id., p.216 chapter 19-22.

160. Id., pp.216, 217 (chapter 27-33).

161. Id., chapter 38 see also "International Institutional Arrangement", Environmental Policy and Law, 22/4 (1992) p.297.

high level commission on Sustainable Development as follow up to UNCED and monitor the implementation of Agenda 21.¹⁶²

Thus the 53 member commission on Sustainable Development (CSD) was formally established by the Economic and Social Council of U.N. Access to information on environmentally sound technologies formed the cardinal principle adopted by CSD.¹⁶³

United Nations Environment Programme (UNEP)

UNEP followed the functional strategy laid down by the Stockholm Action Plan. UNEP acted as a coordinator of environmental programmes at different levels and as a catalyst that promote national level actions.¹⁶⁴ UNEP principles are only guidelines to be taken into consideration by nations in their environmental programmes.¹⁶⁵ Co-operative programmes of UNEP

162. Supra. n. 288.

163. Ibid. This includes marketing technology transfer development of a suitable infrastructure for technology transfer and role of transnational corporations in such transfer to developing countries. Regarding the financial issues the recommendations included international and national policies on environmental and economic instruments conducive to mobilising domestic and external financial resources to implement Agenda 21 including economic and fiscal incentives and mechanisms.

164. Patricia W. Birnie and Alan E. Boyle, supra. n.1 at p.51.

165. Gopesh Nath Khanna, supra. n.7 at p.147.

and UNCTAD in the general field of environment and development covers topics of international interest like transfer of technology and their environmental effects.¹⁶⁶ The aiming at development of international environmental law and initiated programmes¹⁶⁷ UNEP undertook to provide technical assistance to developing countries for the development of their environmental legislation.¹⁶⁸ International exchange of information is another area where UNEP showed considerable advancement.¹⁶⁹

An evaluation of its programmes by the end of UNEP's first decade was made in 1982.¹⁷⁰ The Nairobi Conference entrusted UNEP to focus its attention on three major areas¹⁷¹

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166. Brief on "State of the Environment", 69th IP Conference. Department of Environment taken from World Environment (Loksabha Secretariat, New Delhi) p.2.
167. Martin Amattes, "The UNEP" in Environmental Policy and Law, 1 (1975) p.53.
168. Supra. n.164 at p.47.
169. Gopesh Nath Khanna, op.cit., p.147. Thus International Referral System (IRA INFPTTE RRA) was designed by UNEP to improve the access of the decision makers everywhere. It is a highly decentralized network with simple and flexible procedure for its operation. IRPTC (Information Register for Potential and Toxic Chemicals) is another international source of information. Its ultimate purpose is to help reduce the health hazards associated with the chemicals in the environment.
170. 21 I.L.M. (1982) p.676-678. In May 1982 UNEP convened in Nairobi a session of the Governing Council of UNEP to commemorate the 10th Anniversary of the Stockholm Conference on Human Environment.
171. Nairobi Declaration and a decision on "Environment in 1982"Retrospect and Prospect" 22 I.J.I.L. 468 (1982) p.468.

such as global level approach to environmental problems by promoting international cooperation, economic and social policies along with education and training. UNEP decision to propose environmental impact assessment as a process for sustainable development is a positive step in line with the above suggestion.¹⁷²

In the field of international environmental law UNEP adopted programme for the Development and Periodic Review of Environmental Law (Montevideo programme).¹⁷³ UNEP principles were only to be used as guidelines and recommendations in formulating national and international programmes. Its significance is great in promoting international programmes thus developing international environmental protection policies. It can be seen that the role of UNEP in the growth of global environmentalism is great. But the direction of industrial growth in the developing countries does not show that UNEP succeeded in arousing awareness at the national or local level.¹⁷⁴

172. UNEP, "Principles of Environmental Impact Assessment" Environmental Policy and Law, 17/1 (1987) p.36.

173. (Patricia) supra. n.164 at pp.48-49. The Montevideo programme can be grouped loosely into three categories: (i) conclusion of international agreements (ii) development of international principles, guidelines and standards (iii) provision of international assistance for national legislation and administration.

174. Gopesh Nath Khanna, at p.167. UNEP though created consciousness failed to reconcile the developing countries to the need for sustainable industrialism.

After an indepth analysis of the State of the environment 20 years after the Stockholm Conference UNEP came to the conclusion that environment is still deterioration.¹⁷⁵ In 1991 it proposed the new areas for consideration in the formulation of a programme of work for next decade.¹⁷⁶ In the control of industrial pollution at the international level, International Chamber of Commerce plays a credible role,¹⁷⁷ ICC adopted the Business Charter for sustainable development¹⁷⁸

175. UNEP Governing Council, "Third Special Session", Environmental Policy and Law, 22/2 (1992) p.67 at 68. "Montevideo Follow-up", Environmental Policy and Law, 22/2 (1992) p.74 at p.75.

176. Id., p.75.
Such as: (1) Marine Pollution From Land Based sources (2) Protection of the Stratospheric Ozone layer (3) Transport, handling and disposal of hazardous wastes.

177. Stefan Banerfeind, "Second World Industry on its 70 UNCED 1992" - Environmental Policy and Law, 21/3/4 (1991) p.150. ICC initiates in this direction started with the "Environmental Guidelines for World Industry".

178. ICC - "Business charter for Sustainable Development" Environmental Policy and Law, 21/1 (1991) p.14. The projects are (1) Business charter for sustainable development; (2) Global climate change; (3) Energy efficiency; (4) Transfer of environmental technology and know-how; (5) Wider participation in the policy process; (6) Environmental education and International harmonization.

to provide guidance on environmental management to all types of business enterprise around the world. The Second World Industry Conference on Environment Management was hailed as a "milestone in industrial environmental policy".¹⁷⁹ The final declaration of WICCM II at the outset acknowledged sustainable development as a global challenge, a shared responsibility of all sectors of society including governments, the consumer, industry and commerce.¹⁸⁰

179. Supra. n.177.

180. Environmental Policy and Law, 21/3/4 (1991) p.179.

P A R T V

CHAPTER XI

CONCLUSIONS AND SUGGESTIONS

Industries constitute the main spring of development. Without industrial development no country could reach a stage in which a decent living for its citizens would be achieved. Increasing production to meet the basic needs of society augmented scientific invention and machine oriented industrial order. While search for raw materials and market for products led to colonialization in early days, the immense industrialisation brings today in its train myriad problems of pollution including the dumping of industrial wastes. In order to block the eco-terrorism of dumping wastes the undeveloped countries have to wake up with new awareness and adopt the NIMBY(not in my backyard) approach.

Environmental pollution is a burning global issue. It is more serious and dangerous than terrorism. Started with the discovery of fire and development of civilization, pollution went unnoticed throughout the centuries of human growth until its adverse effects on human environment become explicit. During the forties after the Second World War and the fifties, it was realized that the self purifying and regenerating capacity of nature is not unlimited and that the situation will lead to disasters making life on this planet impossible. The need to preserve air, water and other natural environment became increasingly obvious.

National concern for environment started in our country only after the cause of protection of environment received global attention. Till then, there was only piece meal treatment of the problems in islands of isolated provisions of those statutes unconnected with either environment as such or pollution in particular. Real concern for environment in India starts with the Fourth Five Year Plan, becomes prominent through Sixth and Seventh Plans, gets reflected in legislation on water and air pollution and has the climax in Environment Protection Act with its plethora of delegated powers distributed among various agencies under the Act through Rules, notifications and orders.

At present legal control of industrial pollution is in a scattered framework of piece meal processes with overlapping provisions and authorities. It is true that control of industrial pollution cannot be looked at in an isolated manner divorced from measures to control other pollution or even from those to control wider environmental hazards. Instead of separate legislation for control of water and air pollution, a comprehensive legislation covering pollution of varying types is the desideratum. The new legislation can eliminate the drawbacks of the existing pollution control regime.

At present, duty of controlling pollution is thrust upon diverse authorities. Compartmentalization of control measures without co-ordination is unwelcome and needs change. Though Pollution Control Boards in the States and at the Centre have many things to do, their structure and composition with interest representation and without freedom to act meaningfully in emergency and the indifference of other governmental agencies to co-operate, present a disappointing scene. Structural changes are felt necessary. The Board with too many official domination and packed with inept and indifferent members should give way to a small compact decision making and enforcing authority. True that amendments in the Water and Air Act have made the agency more powerful and that the delegation of powers under the Environmental Act has converted the Board into a dynamic institution. Of recently, in many cases in which courts have seized of the problems of environmental pollution, the Boards act and report in a more objective and independent manner. But old habits die hard. The perspectives of the Board should also change. Structural change would give a magic touch. What is needed is a pollution control authority with more functional and institutional freedom to act without fear of favour.

Pollution control has to begin from the grass roots. An agency at the State level alone cannot achieve the objectives. Planning decisions at rural levels should necessarily incorporate

environmental values so that schemes for starting industries should be safe and pollution free. An environmental officer with advisory function to help village panchayats in taking environmentally benign decisions at the design and installation stages of establishing an industry is necessary. "Environmental protection" should be an item not only in the concurrent list of schedule 7 to the Constitution but also in the list of matters entrusted to the panchayati institutions in the Schedule 11. It is heartening to note that so far as municipalities are concerned the Constitution of India lives up to the expectation.

A three tier system of environmental authorities at the rural, urban and district levels can help and co-ordinate the activities of the existing Board. Preferably, the nomenclature of the Board can be changed to State Environment Protection Board.

Constituting environmental tribunal consisting of not only legal expertise but scientific and technological inputs is sine qua non for efficient disposal of complaints against environmentally malign decisions. The new National Environment Tribunal Act 1995 provides a tribunal only to deal with compensation for victims of pollution just as a motor vehicles accident tribunal. But industrial pollution is a malady not only to be remedied but to be prevented. Environmental courts can go into all parameters of environmental decisions and pronounce whether or not they are right or wrong. The traditional court bereft of technological expertise is not in a position to do this job.

It is true that the penalties provided in the Water, Air and Environment Acts are insufficient and need to be made more stringent. However, criminal sanctions seem to be a weak instrument of pollution control in a country which is at the take off stage of industrialization. Industrialists are considered rather as messengers of development than as potential offenders. Sanctions such as closure, suspension and stoppage of facilities in case of environmental faults shall be more effective than criminal sanctions. They act as a sword of Democles over the industries and will be a true deterrent. Liberalization has already set in; but there can be no liberal attitude towards environmental delict. Economic incentives coupled with adoption of polluter pay doctrine and imposition of pollution taxes will go a long way in removing the evil of industrial pollution.

In the wake of New Industrial Policy based on liberalisation a long list of small scale industries fall outside the purview of environmental clearance. The Indian concept of environmental impact assessment introduced under the Environment Act by notification excludes the entire gamut of small scale industries and relates only to scheduled industries covered by the notification. Most of them are subjected to EIA only if the investment goes above Rs.50 crores. This provision dilutes the impact assessment considerably. EIA merely based on the quantum of investment and on the accident of being included in the schedule

is not a scientifically acceptable idea. The significant environmental effects of the project, whether big or small, should be the criterion for impact study. Small scale industries have equal potential for pollution and hence shall not be exempted from the requirement of environmental clearance. There should always be a preliminary study to know whether or not projects bring significant effects on environment. If it is found ^{that} there are such effects, a detailed assessment with adequate public participation should follow.

Environmental information should be given preferably to the general public and invariably to the affected people before EIA is made. The environment impact notification fails in this respect also. Although the notification originally aimed at public participation in impact process, later amendments to the notification made this discretionary. Divulgence of information is now made subject to the public interest privilege. This situation leaves environmentalists and people affected by the project completely in the dark and is not conducive to sustainable development. An open mandatory impact assessment scheme is absolutely necessary.

Eco-mark is an incentive scheme for industries. But few industries eligible to get the label come forward to accept the offer. Eco-labelling should be encouraged by providing tax reductions and promoting consumer awareness to use only eco-friendly products.

Recycling is necessarily to be promoted. Industries thriving on byproducts and wastes of other industries should be not only promoted but allowed to be located close to the latter.

Orders by courts to shift industries to the outskirts of cities are many. But the tendency always is that the surrounding areas of an industry get developed faster and become densely populated. This scenario makes it imperative to impose not only restrictions for siting industries in residential areas but also preventive measures against conglomeration of residential colonies around industries. This is also the reason why green belt around the places where industries are located are to be made mandatory.

Multidimensional incentives have to be provided in addition to regulatory mechanisms. Just as International Chamber of Commerce plays an active role in environmental issues at the international level, Chambers of Commerce within the country should get involved in environmental matters at the national and state level. Officials involved

in decision-making processes with regard to industry siting and licensing are to be trained and educated on environmental matters. More often than not, judiciary shows reluctance to interfere in environmental policy decisions and adopts the traditional technique of judicial deference to environmental decisions of the administration, despite its activism in appointing commissions to investigate and issuing directions to abide by standards. A mandatory impact assessment with public participation and with provision for a review by specialized environmental courts will eliminate the possible evils of this judicial passiveness.

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Appendix I

Environment (Protection) Act, 1986 (No.29 of 1980)
(Some relevant provisions are given under)

An Act to provide for the production and improvement of
environment and for matters connected therewith

2. Definitions - In this Act, unless the context otherwise requires,
- (a) "environment" includes water, air and land and the inter relationship which exists among and between water, air and land, and property;
 - (b) "environmental pollutant" means any solid, liquid or gaseous substance present in such concentration as may be, or tend to be, injurious to environment;
 - (c) "environmental pollution" means the presence in the environment of any environmental pollutant;
 - (d) "handling", in relation to any substance, means the manufacture, processing, treatment, package, storage, transportation, use, collection, destruction, conversion, offering for sale, transfer or the like of such substance;
 - (e) "hazardous substance" means any substance or preparation which, by reason of its chemical or physico-chemical properties or handling, is liable to cause harm to human beings, other living creatures, plants, micro-organism, property or the environment;

- (f) "Occupier", in relation to any factory or premises, means a person who has control over the affairs of the factory or the premises and includes in relation to any substance, the person in possession of the substance;
- (g) "prescribed" means prescribed by rules made under this Act.

3. Power of Central Government to take measures to protect and improve environment - (1) Subject to the provisions of this Act, Central Government shall have to the power to take all such measures as it deems necessary or expedient for the purpose of protecting and improving the quality of the environment and improving the quality of the environment and preventing, controlling and abating environmental pollution.
- (2) In particular and without prejudice to the generality of the provisions of subsection (1), such measures may include measures with respect to all or any of the following matters, namely:-
- (i) co-ordination of actions by the State Governments, officers and other authorities -
 - (a) under this Act, or the rules made thereunder; or
 - (b) under any other law for the time being in force which is relatable to the objects of this Act;
 - (ii) planning and execution of a nation-wide programme for the prevention, control and abatement of environmental pollution;
 - (iii) laying down standards for the quality of environment in its various aspects;
 - (iv) laying down standards for emission or discharge of environmental pollutants from various sources whatsoever;

Provided that different standards for emission or discharge may be laid down under this clause from different sources having regard to the quality or composition of the emission or discharge of environmental pollutants from such sources;

- (v) restriction of areas in which any industries, operations or processes or class of industries, operations or processes shall not be carried out or shall be carried out subject to certain safeguards;
- (vi) laying down procedures and safeguards for the prevention of accidents which may cause environmental pollution and remedial measures for such accidents;
- (vii) laying down procedures and safeguards for the handling of hazardous substances;
- (viii) examination of such manufacturing processes, materials and substances as are likely to cause environmental pollution;
- (ix) carrying out and sponsoring investigations and research relating to problems of environmental pollution;
- (x) inspection of any premises, plant, equipment, machinery, manufacturing or other processes, materials or substances and giving, by order, of such directions to such authorities, officers or persons as it may consider necessary to take steps for the prevention, control and abatement of environmental pollution;

- (xi) establishment or recognition of environmental laboratories and institutes to carry out the functions entrusted to such environmental laboratories and industries under this Act;
- (xii) collection and dissemination of information in respect of matters relating to environmental pollution;
- (xiii) prevention of manuals, codes or guides relating to the prevention, control and abatement of environmental pollution;
- (xiv) such other matters as the Central Government deems necessary or expedient for the purpose of securing the effective implementation of the provisions of this Act.

(3.) The Central Government may, if it considers it necessary or expedient so to do for the purposes of this Act, by order, published in the Official Gazette, constitute an authority or authorities by such name or names as may be specified in the order for purpose of exercising and performing such of the powers and functions (including the power to issue directions under Sec.5) of the Central Government under this Act and for taking measures with respect to such of the matters referred to in sub-section (2) as may be mentioned in the order and subject to the supervision and control of the Central Government and the provisions of such order, such authority or authorities may exercise the powers or perform the functions or take the measures so mentioned in the order as if such authority or authorities had been empowered by this Act to exercise those powers or perform those functions or take such measures.

4....

5. Power to give directions. - Notwithstanding anything contained in any other law but subject to the provisions of this Act, the Central Government may, in the exercise of its powers and performance of its functions under this Act, issue directions in writing to any person, officer or any authority and such person, officer or authority shall be bound to comply with such directions.

Explanation - For the avoidance of doubts, it is hereby declared that the power to issue directions under the section includes the power to direct -

(a) the closure, prohibition or regulation of any industry operation or process; or

(b) stoppage or regulation of the supply of electricity or water or any other service.

6. Rules to regulate environmental pollution. - (1) The Central Government may, by notification in the Official Gazette, make rules in respect of all or any of the matters referred to in Sec.3.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the following matters, namely:-

(a) the standards of quality of air, water or soil for various areas and purposes;

(b) the maximum allowable limits of concentration of various environmental pollutants (including noise) for different areas

(c) the procedures and safeguards for the handling of hazardous substances;

(d) the prohibition and restrictions on the location of industries and the carrying on of processes and operations in different areas;

(f) the procedures and safeguards for the prevention of accidents which may cause environment pollution and for providing for remedial measures for such accidents.

7. Persons carrying on industry, operation, etc., not to allow emission or discharge of environmental pollutants in excess of the standards.—No person carrying on any industry, operation or process shall discharge or emit or permit to be discharged or emitted any environmental pollutants in excess of such standards as may be prescribed.

8. Persons handling hazardous substances to comply with procedural safeguards.—No person shall handle any hazardous substance except in accordance with such procedure and after complying with such safeguards as may be prescribed.

9. . . .

10. Powers of entry and inspection.—(1) Subject to the provisions of this section, any person empowered by the Central Government in this behalf shall have a right to enter, at all reasonable times with such assistance as he considers necessary, any place—

- (a) for the purpose of performing any of the functions of the Central Government entrusted to him;
- (b) for the purpose of determining whether and if so in what manner, any such functions are to be performed or whether any provisions of this Act or the rules made thereunder or any notice, order, direction or authorisation served, made, given or granted under this Act is being or has been complied with;

(c) for the purpose of examining and testing any equipment, industrial plant, record, register, document or any other material object or for conducting a search of any building in which he has reason to believe that an offence under this Act or the rules made thereunder has been or is being or is about to be committed and for seizing any such equipment, industrial plant, record, register, document or other material object if he has reasons to believe that it may furnish evidence of the commission of an offence punishable under this Act or the rules made thereunder or that such seizure is necessary to prevent or mitigate environmental pollution.

(2) Every person carrying on any industry, operation or process or handling any hazardous substance shall be bound to render all assistance to the person empowered by the Central Government under sub-section (1) for carrying out the functions under that sub-section and if he fails to do so without any reasonable cause or excuse, he shall be guilty of an offence under this Act.

(3) If any person wilfully delays or obstructs any person empowered by the Central Government under sub-section (1) in the performance of his functions, he shall be guilty of an offence under this Act.

(4) The provisions of the Code of Criminal Procedure, 1973 (2 of 1974), or, in the relation to the State of Jammu & Kashmir, or any area in which that Code is not in force, the provisions of any corresponding law in force in that State or area shall, so far as may be, apply to any search or seizure under this section as they apply to

any search or seizure made under authority of a warrant issued under Sec.94 of the said Code or, as the case may be, under the corresponding provision of the said law.

11.... 12. Environmental Laboratories.—(1) The Central Government may, by notification in the Official Gazette,—

- (a) establish one or more environmental laboratories;
- (b) recognise one or more laboratories or institutes as environmental laboratories to carry out the functions entrusted to an environmental laboratory under this Act.

(2) The Central Government may, by notification in the Official Gazette make rules specifying -

- (a) the functions of the environmental laboratory;
- (b) the procedure for the submission to the said laboratory of samples of air, water, soil or other substance for analysis or test, the form of the laboratory report thereon and the fees payable for such report;
- (c) such other matters as may be necessary or expedient to enable that laboratory to carry out its functions.

15. Penalty for contravention of the provisions of the Act and rules, orders and directions.—(1) Whoever fails to comply with or contravenes any of the provisions of this Act, or the rules made or orders or directions issued thereunder, shall, in respect of each failure or contravention, be punishable with imprisonment for a term which may extend to five years or with fine which may extend to one lakh rupees, or with both, and in case the failure or contravention continues, with additional fine which may extend to five thousand

rupees for every day during which such failure or contravention continues after the conviction for the first such failure or contravention.

(2) If the failure of contravention referred to in sub-section (1) continues beyond a period of one year after the date of conviction, the offender shall be punishable with imprisonment for a term which may extend to seven years.

13.14.15..(16) Offences by companies.—(1) Where any offence under this Act has been committed by a company, every person who, at the time the offence was committed, was directly in charge of, and was responsible to, the company for conduct of the business of the company, as well as the company, shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall be also deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation--For the purposes of this section, -

- (a) "company" means any body corporate and includes a firm or other association of individuals;
- (b) "director" in relation to a firm, means a partner in the firm.

17- Offences by Government Departments.—(1) Where an offence under this Act has been committed by any Department of Government, the Head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly:

Provided that nothing contained in this section shall render such Head of the Department liable to any punishment if he proves that the offence committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the Head of the Department, such officer shall also be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

18... 19. Cognizance of offences.—No Court shall take cognizance of any offence under this Act except on a complaint made by—

- (a) the Central Government or any authority or officer authorized in this behalf by that Government; or
- (b) any person who has given notice of not less than sixty days, in the manner prescribed, of the alleged offence and of his intention to make a complaint, to the Central Government or the authority or officer

authorised as aforesaid.

20.21... 22. Bar of jurisdiction.—No civil court shall have jurisdiction to entertain any suit or proceeding in respect of anything done, action taken or order or direction issued by the Central Government or any other authority or officer in pursuance of any power conferred by or in relation to its or his functions under this Act.

23. Power to delegate.—Without prejudice to the provisions of sub-section (3) of Sec.3, the Central Government may, by notification in the Official Gazette, delegate, subject to such conditions and limitations as may be specified in the notification, such of its powers and functions under this Act, [except the power to constitute an authority under sub-section (3) of Sec.3 and to make rules under 24..25] as it may deem necessary or expedient, to any officer, State Government or other authority.

24. Effect of other laws.—(1) subject to the provisions of sub-section (2), the provisions of this Act and the rules or orders made therein shall have effect notwithstanding anything inconsistent therewith contained in any enactment other than this Act.

(2) Where any act or omission constitutes an offence punishable under this Act and also under any other Act then the offender found guilty of such offence shall be liable to be punished under the other Act and not under this Act.

25. Power to make rules.—(1) The Central Government may, by notification in the Official Gazette, make rules for carrying out the purposes of this Act.

(2) In particular, and without prejudice to the generality of the foregoing power, such rules may provide for all or any of the

following matters, namely:—

- (a) the standards in excess of which environmental pollutants shall not be discharged or emitted under Sec.7;
- (b) the procedure in accordance with and the safeguards in compliance with which hazardous substances shall be handled or caused to be handled under Sec.8;
- (c) the authorities or agencies to which intimation of the fact of occurrence or apprehension of occurrence of the discharge of any environmental pollutant in excess of the prescribed standards shall be given and to whom all assistance shall be bound to be rendered under sub-section (1) of Sec.9;
- (d) the manner in which samples of air, water, soil or other substance for the purpose of analysis shall be taken under subsection (1) of Sec.11;
- (e) the form in which notice of intention to have sample analysed shall be served under Cl.(a) of sub-section (3) of Sec.11;
- (f) the functions of the environmental laboratories, the procedure for the submission to such laboratories of samples of air, water, soil and other substances for analysis or test; the form of laboratory report; the fees payable for such report and other matters to enable such laboratories to carry out their functions under sub-section (2) of Sec.12;

- (g) the qualifications of Government Analyst appointed or recognised for the purpose of analysis of samples of air, water, soil or other substances under Sec.13;
- (h) the manner in which notice of the offence and of the intention to make a complaint to the Central Government shall be given under Cl.(b) of Sec.19;
- (i) the authority or officer to whom any report, returns, statistics, accounts and other information shall be furnished under Sec.20;
- (j) any other matter which is required to be, or may be, prescribed.

Appendix - 2

List of Industries for which standards for emission or discharge of environmental pollutants is specified under Environmental (Protection) Rules

SCHEDULE 1

(See rule 3)

1. Caustic Soda Industry
2. Man-made fibers (synthetic)
3. Oil Refinery Industry
4. Sugar Industry
5. Thermal Power plants
6. Cotton Textile Industries
7. Composite Woollen Mills
8. Dye and Dye Intermediate Industries
9. Electroplating
10. Cement Plants Plant Capacity
11. Stone-crushing Unit
12. Coke ovens

13. Synthetic Rubber
14. Small Pulp and Paper Industry
15. Fermentation Industry
16. Leather Tanneries
17. Fertilizer Industry
18. Aluminium
19. Calcium Carbide
20. Carbon Black
21. Copper, Lead and Zinc Smelting
22. Nitric Acid
23. Sulphuric Acid
24. Iron & Steel
25. Thermal Power Plants
26. Natural Rubber Industry
27. All types of Asbestos
28. Chlor Alkali (Caustic Soda)
29. Large Pulp and Paper
30. Integrated Iron and Steel Plants
31. Reheating
32. Foundries
33. Thermal Power Plants
34. Small Boilers
35. Oil Refineries
36. Aluminium Plants
37. Stone Crushing Unit
38. Petrochemical
39. Pharmaceutical Manufacturing and Formulation Industry
40. Pesticide

41. Tannery
42. Paint Industry
43. Inorganic Chemical Industry
44. Bullion Refining
45. Dye and Dye Intermediate Industry
46. Noise limits for automobiles
47. Domestic appliances and construction equipments
at the manufacturing stage to be achieved by the year 1993
48. Glass Industry
49. Lime Kiln
50. Slaughter House, Meat and Sea Food Industry
51. Food and Fruit Processing Industry
52. Jute Processing Industry
53. Large Pulp and Paper
54. Small Pulp and Paper
55. Common Effluent Treatment Plants
56. Dairy
57. Tanneries
58. Natural rubber processing Industry
59. Biogas -fired boilers
60. Man-made fibre industry
61. Ceramic Industry
- 62.
63. Starch Industry
64. Behive hard coke over
65. Briquette Industry
66. Soft Coke Industry
67. Edible oil & Vanaspati Industry
68. Organic Chemicals manufacturing industry

69. Flour Mills
 70. Boilers
 71. Pesticide Industry
 72. Oil Drilling and Gas Extraction Industry
 73. Pharmaceuticals Industry
 74. Emission Standards for brick kilns
 75. Soda Ash Industry
 76. Emission Standard for SO₂ from Cupole furnace
 Appendix - 3

SCHEDULE III
 (See rule 3)

Ambient Air Quality Standards in respect of Noise

Area code	Category Area	Limits in dB(A) Day Time	Leg. Night Time
A	Industrial area	75	70
B	Commercial area	65	55
C	Residential area	55	45
D	Silence Zone	50	40

Note-1. Day time is reckoned in between 6 a.m. and 9 p.m.

Note-2. Night time is reckoned in between 9 p.m. and 6 a.m.

Note-3. Silence zone is defined as areas upto 100 metres around such premises as hospitals, educational institutions and courts. The Silence zones are to be declared by the Competent Authority. Use of vehicles horns, loudspeakers and bursting of crackers shall be banned in these zones.

Note-4. Mixed categories of areas should be declared as one of the four above mentioned categories by the Competent Authority and the corresponding standards shall apply.

Appendix - 4

Ministry of environment and Forests (Department of Environment, Firests and Wildlife), Noti.No.G.S.R.85(E), dated February 20, 1991, published in the Gazette of India, Part II, Section 3 (ii), dated 21st February, 1991, pp. 4-6 (No.23/1/91-PL)

(1) The Government have decided to institute a Scheme on Labelling of Environment Friendly Products. The scheme will operate on a national basis and provide accreditation and labelling for household and other consumer products which meet certain environmental criteria along with quality requirements of the Indian Standards for that product. The Label shall be known as the "ECOMARK" and will be of the design to be notified.

Any product which is made, used or disposed of in a way that significantly reduces the harm it would otherwise cause the environment could be considered as Environment Friendly Product.

(2) Objectives of the Scheme:

The specific objectives of the scheme are as follows:-

- (i) To provide an incentive for manufacturers and importers to reduce adverse environmental impact of products.
- (ii) To reward genuine initiatives by companies to reduce adverse environmental impact of their products.
- (iii) To assist consumers to become environmentally responsible in their daily lives by providing information to take account of environmental factors in their purchase decisions.
- (iv) To encourage citizens to purchase products which have less harmful environmental impacts.

- (v) Ultimately to improve the quality of the environment and to encourage the sustainable management of resources

(3) Administrative and Organisational Structure--

There will be three stages leading to the award of the "ECOMARK":-

1. A steering committee, set up in the Ministry of Environment and Forests, to determine the product categories for coverage under the scheme and also formulate strategies for promotion, implementation, future development and improvements in the working of the scheme.
2. A technical committee, set up in the Central Pollution Control Board, to identify the specific product to be selected and the individual criteria to be adopted, including, wherever possible, inter se priority between the criteria if there be more than one.
3. The Bureau of Indian Standards to assess and certify the products and draw up a contract with the manufactures, allowing the use of the label, on payment of a fee.

3.1.1. Steering Committee:

A steering Committee shall be set up in the Ministry of Environment and Forests by the Central Government to decide the product categories to be taken up under the scheme, and to formulate the strategies for promotion, future development and improvement of this scheme. The product categories will be notified from time to time.

The functions of the Steering Committee shall be as follows:-

- (a) Selection of the logo for the "ECOMARK".
- (b) Activities related to creation of mass awareness for promotion and acceptance of the scheme
- (c) Determining the product category to be taken up under the scheme
- (d) Co-ordinating ways of ensuring that industry is actively involving in the scheme
- (e) Securing the involvement of other Ministries, Government Departments, Industry Associations and other Non-Governmental Organisations and Consumer organisations.
- (f) Formulation of strategies for future development of the scheme
- (g) Identifying institutions in India or outside which are engaged in the standardization of any article or process or improvement of quality of any article or process and recommending assistance to build consumer awareness.
- (h) Promoting programmes of comparative testing of products by consumer organisations and dissemination their results to the general public.
- (i) Supporting any research for the formulation of ECOMARK products in the interests of Consumer groups.

3.12. Technical Committee

A Technical Committee shall be constituted by the Central Government to identify the individual products and determine the criteria for awarding the ECOMARK. The Committee shall function in the Central Pollution Control Board, New Delhi.

The following shall be the functions for the Technical Committee:-

- (i) Identification of specific products for classifying as environment friendly.
- (ii) Reviewing the existing state of knowledge and the environmental criteria being followed in other countries.
- (iii) Recommend the most appropriate criteria and parameters to designate various products as environment friendly, including the most important criteria, or individual products that have been specified for the purpose and their inter se priority, whenever possible.
- (iv) Review the various technologies available for determining the criteria.
- (v) Recommend various laboratories and analysts for product assessment to the Ministry of Environment and Forests.
- (vi) Evaluation of the environmental impact of the products and criteria from time to time.
- (vii) To review from time to time, the implementation of the schemes by the Bureau of Indian Standards (BIS), including the sample inspections done by it.
- (viii) Set up sub-committees for each product category if so required, including formulation of test programmes for comparative testing of products by consumer organisations.
- (ix) The technical committee may set up expert panels to advise it for specific products.

The Bureau of Standards (BIS) shall implement the scheme.

Following shall be the functions of the BIS:-

- (1) Assess the products for Ecomark, certify the product for award of the Ecomark;
- (2) Review suspend or cancel a licence, for the use of the Ecomark;
- (3) Mark inspections, and take such samples for analysis of any material or substances as may be necessary to see whether any article or product in relation to which the Ecomark has been used, conforms to the contract or whether the Ecomark is improperly used in relation to any article or process with or without a licence.

(4) Certification and Licensing:

4.1. Under the scheme the manufacturers shall apply for testing and certification of products which fall under the notified categories in terms of their compliance with published environmental criteria in the prescribed form. The terms and conditions governing operations of the licences including fees shall be as per the Bureau of Indian Standards Act and the regulations framed thereunder.

4.2. Testing and certification shall be carried out by the Bureau of Indian Standards. For product categories which have the Indian Standards mark, the Bureau of Indian Standards will ordinarily complete the task of certification within a period of three months. Products certified as eligible for the ECOMARK shall be licenced to carry the ECOMARK for a prescribed time period.

4.3. The product shall be reassessed after the prescribed period and the licence fee shall have to be paid again for the mark.

5. The criteria for Ecomark:

Environmental criteria for each product category will be notified by the Central Government and later on shall be translated into Indian Standards by the Bureau of Indian Standards. The criteria shall be for broad environmental levels and aspects, but will be specific at the product level. Products will be examined in terms of the following main environmental impacts:-

- (a) That they have substantially less potential for pollution than other comparable products in production, usage and disposal.
- (b) That they are recycled, recyclable, made from recycled products or biodegradable, where comparable products are not.
- (c) That they make significant contribution to saving non-renewable resources, including non-renewable energy sources and natural resources, compared with comparable products.
- (d) That the product must contribute to a reduction of the adverse primary criteria which has the highest environmental impact associated with the use of the product, and which will be specifically set for each of the product categories.

In determining the primary criteria for a product, the following shall be taken into account:-

- (a) Production process including source of raw materials;
- (b) Case of Natural Resources;
- (c) Likely impact on the environment;
- (d) Energy conservation in the production of the product;
- (e) Effect and extent of waste arising from the production process;

- (f) Disposal of the product and its container;
- (g) Utilization of "Waste" and recycled materials;
- (h) Suitability for recycling or packaging;
- (i) Biodegradability

Ministry of Environment and Forests, Notification No.S.O. 60(E), dated January 27, 1994, published in the Gazette of India, Extra Part II, Section 3 (ii), dated 27th January, 1994, pp.4-7, Sl.No.42/No.Z-/20/3/4/89-IA-I) as amended by S.O.356(E) dated May 4, 1994 in 1994 C.C.L. (III) p.200.

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In exercise of the powers conferred by sub-section (1) and clause (v) of sub-section (2) of Section 3 of the Environment (Protection) Act, 1986 (29 of 1986) read with clause (d) of sub-rule (3) of Rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby directs that on and from the date of publication of this notification in the Official Gazette, expansion or modernization of any activity if pollution load is to exceed the existing one, or new project listed in Schedule I to this notification, shall not be undertaken in any part of Indian unless it has been accorded environmental clearance by the Central Government in accordance with the procedure hereinafter specified in this notification;

2. Requirements and procedure for seeking environmental clearance of projects:

I.(a) Any persons who desires to undertake any project in any part of India or the expansion or modernisation of any existing industry or project listed in the Schedule shall submit an application to the Secretary, Ministry of Environment and Forests, New Delhi.

The application shall be made in the proforma specified in Schedule II to this notification and shall be accompanied by a project report which shall, inter alia, include an Environmental Impact Assessment Report/and Environment Management Plan prepared in accordance with the guidelines issued by the Central Government in the Ministry of Environment and Forests from time to time.

- (b) Case rejected due to submission of insufficient or inadequate data and Plan may be reviewed as and when submitted with complete data and Plan. Submission of incomplete data for the second time would itself be a sufficient reason for the Impact Assessment Agency to reject the case summarily.

II. In case of the following site specified projects:

- (a) mining;
- (b) pit-head thermal power stations;
- (c) hydro-power, major irrigation projects and/or their combination including flood control;
- (d) ports and harbours (excluding minor ports);
- (e) prospecting and exploration of major minerals in over above 500 hectares.

III.(a) No construction work, preliminary or otherwise, relating to the setting up of the project may be undertaken till the environmental and site clearance is obtained.

IV. In order to enable the Impact Assessment Agency concerned to monitor effectively the implementation of the recommendations and conditions subject to which the environmental clearance has been given, the project authorities concerned shall submit a half-yearly report to the concerned agency. Subject to the public interest the Impact Assessment Agency will make compliance reports publicly available.

V. If no comments from the Impact Assessment Agency are received within the time limit, the project would be deemed to have been approved as proposed by project authorities.

3. Nothing contained in this Notification shall apply to;

- (a) any time falling under Entry Nos.3, 18 and 20 of Schedule I to be located or proposed to be located in the areas covered by the Notification's S.O.No. 102(E) dated 1st February, 1989; S.O.No.114(E) dated 20th February, 1991, S.O.416(E) dated 20th June, 1991 and S.O.No.319(E) dated 7th May, 1992.

(b) any item falling under Entry Nos. 1, 2, 3, 4, 5, 7, 9, 10, 12, 13, 14, 16, 17, 19, 21, 25 and 27 of Schedule if the investment is less than ₹.50 crores.

(c) any item reserved for Small Scale Industrial Sector with investments less than ₹.1 crore.

4. Concealing factual data or submission of false, misleading data/reports, decisions or recommendations would lead to the project being rejected - approval, if granted earlier on the basis of false data, would also be revoked. Misleading and wrong information will cover the following:

- False information
- False data
- Engineering reports
- Concealing of factual data
- False recommendations or decisions

The project authorities will intimate the location of the project site to the Central Government in the Ministry of Environment and Forests while initiating any investigation and surveys. The Central Government in the Ministry of Environment and Forests will convey a decision regarding suitability or otherwise of the proposed site within a maximum period of thirty days. The said site clearance will be granted for a sanctioned capacity or for any mining lease and shall be valid for a period of five years for commencing the construction, operation or mining.

III.(a)The report submitted with the application shall be evaluated and assessed by the Impact Assessment Agency and if deemed necessary it may consult with a Committee of Experts, having a composition as specified in Schedule III of this Notification. The Impact Assessment Agency (IAA) would be the Union Ministry of Environment and Forests. The Committee of Experts mentioned above shall be constituted by the Impact Assessment Agency or such other body under Central Government authorised by Impact Assessment Agency in this regard.

(b)The Said Committee of experts shall have full right of entry and inspection of the site or, as the case may be, factory premises at any time prior to during or after the commencement of the operations relating to the project.

(c)The Impact Assessment Agency will prepare a set of recommendations based on technical assessment of documents and data, furnished by the project authorities supplemented by data collected during visits to sites or factories, if undertaken, and interaction with affected population and environmental groups, if necessary, Summary of the reports, the recommendation and the conditions subject to which environmental clearance is given, shall be made available, subject to the public interest, to the concerned parties or environmental groups on request. Comments of the public may be solicited, if so decided by IAA within thirty days of receipt of proposal, in public hearings arranged for the purpose after giving thirty days' notice of such hearings in at least two newspapers. Public shall be provided access to the summary of the project reports/Environmental Management Plans at the Headquarters of the Impact Assessment Agency.

The assessment shall be completed within a period of ninety days on receipt of the requisite documents and data from the project authorities and completion of public hearing, where required and decision conveyed within a maximum of thirty days thereafter. The clearance shall be valid for a period of five years from the commencement of the construction or operation.

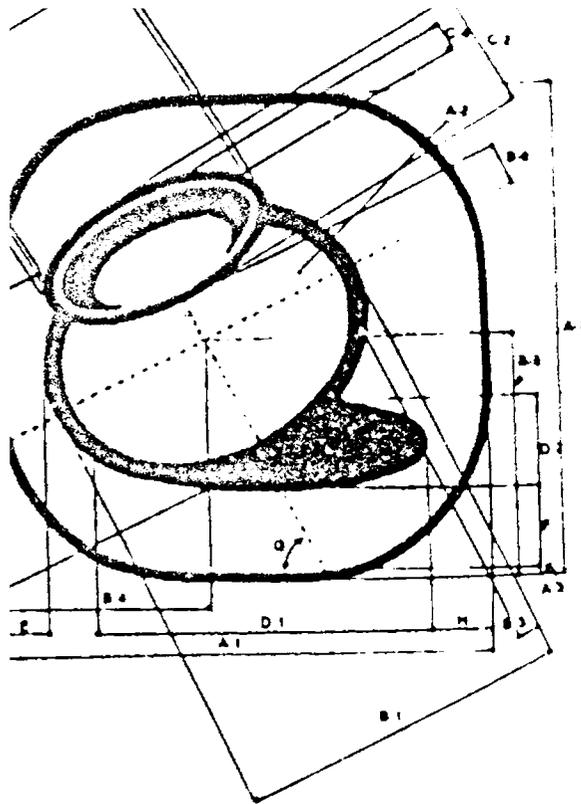
S C H E D U L E : I

(See paras 1 and 2)

List of Projects Requiring Environmental Clearance
from the Central Government

1. Nuclear Power and related projects such as Heavy Water Plants, nuclear fuel complex, rare earths.
2. River Valley projects including hydel power, major irrigation and their combination including flood control.
3. Ports, Harbours, Airports (except minor ports and harbours).
4. Petroleum Refineries including crude and product pipelines.
5. Chemical Fertilizers (Nitrogenous and Phosphatic) other than single superphosphate).
6. Pesticides (Technical).
7. Petrochemical complexes (Both Olefinic and Aromatic) and Petrochemical intermediates such as DMT, Caprolactam LAB etc. and production of basic plastics such as LLPDE, HPDE, PPPVC.
8. Bulk drugs and pharmaceuticals.
9. Exploration for oil and gas and their production, transportation and storage.
10. Synthetic Rubber
11. Asbestos and Asbestos products.
12. Hydrocyanic acid and its derivatives.
13. (a) Primary metallurgical industries (such as production of Iron and Steel, Aluminium, Copper, Zinc, Lead and Ferro Alloys).
(b) Electric arc furnaces (Mini Steel Plants).

14. Chlor alkali industry.
15. Integrated paint complex including manufacture of resins and basic raw materials required in the manufacture of paints.
16. Viscose Staple fibre and filament yarn.
17. Storage batteries integrated with manufacturer of oxides of lead and lead antimony alloy.
18. All tourism between 200 m - 500 meters of High Water Line and at locations with an elevation of more than 1000 meters with an investment of more than Rs.5 crores.
19. Thermal power plants.
20. Mining projects (major minerals) with leases more than 5 hectares.
21. Highway Projects.
22. Tarred Roads in Himalayas and or Forest areas.
23. Distilleries.
24. Raw Skins and Hides.
25. Pulp, paper and newsprint.
26. Dyes.
27. Cement.
28. Foundries (individual)
29. Electroplating.



COMARK

4	B.5	B.6	C.1	C.2	C.3	C.4	D.1	D.2	E	F	G	H
2	5.9	0.9	4.9	2.5	0.2	0.6	6.9	1.8	1.0	1.7	64°	1.2
5	9.8	1.8	9.8	4.9	0.4	1.2	13.7	3.6	2.0	3.3	64°	2.5
7	19.6	3.6	19.5	9.8	0.7	2.4	27.4	7.2	4.0	6.5	64°	5
1	39.2	7.2	39	19.5	1.3	4.8	54.8	14.4	8	13	64°	10

All dimensions are in mm	Dealt PARESH	Checked
ECOMARK	Scale AS SHOWN	Date: 7-9-1992
	Drg No. 003	Proj No.
Centre for Environment Education	Client MINISTRY OF ENVIRONMENT & FORESTS, NEW DELHI, INDIA	
Nehru Foundation for Development, Thaltej Tekra, Ahmedabad 380 094		