CHAPTER - II

CONCEPTUAL STUDY OF ENVIRONMENT
AND THE RELATED MATTERS

In the introductory part of this research work a brief comment was offered by the researcher as to what constitutes the environment and how environmental problems have arisen throwing challenges before the environmental laws. The researcher considers it necessary to give a somewhat detailed description about the nature and scope of environmental law and nature of the wrongs falling within the purview of Environmental Law.

Everyone dealing with the problems of environmental pollution has to be familiar at least with the working definition of environment because the subjects lies at the heart of our lives, and has a bearing on our cultural and physical survival on the planet Earth. But a comprehensive description of Environment is hard to pin down for the reason that a vast range of problems arise for the mankind from the strains we have placed upon the natural resources and the processes on which we all depend. At the same time, our knowledge of the environment is a peculiar mix of increasing understanding and continuing uncertainty. As we develop greater expertise and deeper
understandings, new levels of risk emerge. The sum of human knowledge in other words is contingent, rather than fixed and immutable. Thus, despite progress in ascertaining levels of risk, we struggle in particular with both the known and the unknowns. For more than one reason it is necessary to know how the terms 'Environmental Law' and 'Environmental Pollution' are understood in the leading legal systems in general and the legal system of India in particular. It is also necessary to know how Environmental Pollution is said to exist in various forms and how it is defined under the rules of various branches of law.

The object of this chapter therefore is to explain the nature and scope of Environmental Law and the various kinds of pollution covered by this particular law. The methodology followed is to highlight first the nature and scope of Environmental Law and then describe the nature and scope of the wrongs relating to environment. Reference is made to the relevant Statutes on the subject.

I. MEANING & DEFINITION OF ENVIRONMENT

The term "environment" generally means the surroundings\(^1\) and includes air, water and land and their relationship with human beings, other living creatures, plants, micro-organisms and property.\(^2\) Webster's New

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\(^1\) P. Ramanath Aiyars The Law Lexican p.644
\(^2\) Sec. 2(a) Environment Protection Act.1986
Collegiate Dictionary defines Environment as the 'aggregate of external conditions and influences affecting the life and development of an organism'.

The Environmental Protection Act 1990 (EPA) of England, defines Environment to consist "of all, or any, of the following media, namely, the air, water and land"\(^3\) and environmental pollution is defined as pollution arising "due to the release (into any environmental medium) from any process of substances which are capable of causing harm to man or any other living organisms supported by the environment"\(^4\).

In India, the Union Parliament enacted in the year 1986 a comprehensive legislation called the Environment (Protection) Act. This Act defines "Environment" to include "water, air, and land, and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plant, microorganisms and property."

Despite the statutory definitions the term Environment is difficult to be considered as comprehensive enough to cover all situations relating to environmental pollution. The normal meaning of environment relates to the surroundings no doubt, but it is a concept which is relatable to whatever object it is which is surrounded. Einstein had once observed, "The environment is everything that is not me".

\(^3\) Sec.1 (2) of EPA.
\(^4\) Sec. 1 (3) of EPA.
There are several factors affecting the unity of Environment. Industrialization, urbanization, explosion of population, over exploitation of resources, depletion of traditional sources of energy and raw materials, and the search for new sources of energy and raw materials, the disruption of natural ecological balances, the restriction of multitude of animal and plant species for economic reasons and sometimes for no good reason at all are factors which have contributed to environmental degradation. While the scientific and technological progress of man has invested him with immense power over nature, it has also resulted in the unthinking use of the power, encroaching endlessly on nature. If man is able to transform deserts into oasis, he is also leaving behind deserts in the place of oasis.

Section 2 (a) of the Environment Protection Act, 1986 defines environment and the related matters thus:

(a) “Environment” includes water, air and land and the inter relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism 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 pollution.

(d) "Hazardous substance" means any substance or preparation which, by reason of its chemical or physics-chemical properties or handling, is liable to cause harm to human beings, other living creatures, plants, micro-organisms, property or the environment.

(a) Environmentalism

The question of the relation between man and society and the geographical environment in which he lives is a very old one. Hippocrates (5th century BC) wrote a Treatise: "On Airs, Waters, and Places" which is generally regarded as the first formed expression of an environmentalist doctrine. Although in view of the limited data available to him it is not proper to regard this as a statement sufficiently definite for a serious critique of environmentalism. Environmental conditions, especially climatic ones play a considerable role in Montesuque's writings.5

Originally, Environmentalism grew among the French geographers who were noted for their meticulous and luminous style of original description about the discipline of Geography. In English speaking countries however the

evolution of Environmentalism was different. With the popularization of Razel's determinist outlook a somewhat naïve view of environmental controls became paramount among geographers of United States and Britain and this is what is generally known in these countries as Environmentalism. Another powerful influence was that of Ellsworth Huntington whose numerous works attached preordering role to broad climatic factors. The old view of geography as primarily a study of man and environment relations is now outmoded.

(b) Ecology

All parts of environment are closely related to one another. The study of the relationship between living and non-living things and their relationship with other parts of the Environment is called Ecology. Scientists who study these relationships are called Ecologists.

The world includes a tremendous variety of living things, from complex plants and animals, simpler organisms, such as Fungi, Amoebas and Bacteria. But whether large or small, simple or complex, no organism lives alone. Each depends in some significant way upon other living and non-living things in its surroundings. For example, a deer must have certain plants for food. If the plants in its environment were destroy the deer would have to move to another area to find food or starve to death. In turn plants depend upon such animals as Deer for Nutrients (nourishing substances) they need to
live. Animal waste and the decay of dead animals provide many of the nutrient plant needs.

The study of Ecology increases our understanding of the world and its life. This is important because our survival and well being depend on Ecological relationships throughout the world. Even changes in distant parts of the world and its atmosphere affect us and our environment.

Although Ecology is considered a branch of Biology, Ecologists use knowledge from many disciplines including Chemistry, Physics, Mathematics and Computer Sciences. They are rely on such fields as climatology, genealogy, meteorology and oceanography to learn about air, land, and water, the environment and their interactions. This multi-disciplinary approach helps Ecologists understand how the physical environment affects living things. It also aids them in assessing the impact of environment and the problems, such as acid rain or the greenhouse effects.6

The term ‘Ecology’ which has its root in the Greek word ‘oikos’ household or living place came into use in the latter part of the nineteenth century in the works of zoologists and botanists to describe the study of the ways in which organisms live in their environments. Soon two branches of ecology were distinguished: autoecology, the study of the individual organism’s interaction with environment, and synecology, the study of the

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correlations between the organisms engaged with a given unit of environment. The latter study has prevailed, however, and has become the principal connotation of ecology, since it became evidence in numerous field studies that organisms, whether plant or animal, establish viable relationships with environment, not independently but collectively, through the mechanism of a system of relationships. Bioecologists were thus led to employ a set of concepts and techniques of investigation that imparted a markedly sociological coloration to their work.

The ecological approach was introduced as human ecology into the field of sociology at a critical period in the development of the latter discipline. The sociologists made use of ecology borrowing heavily from the concepts of plant and animal ecology. According to plant and animal ecologists, the community, or ecosystems is a population comprising a set of species whose reactions to the habitat and coactions between each other constitute an integrated system having some degree of unit character.

(c) Ecological Balance

Ecological Balance refers to the condition of equilibrium among the components of a natural community, such that their relative numbers remain fairly constant and their eco-system is stable. Gradual re-adjustment of the composition of a balanced community takes place continually in response to natural ecological succession and to alterations in climatic and other
influences. By removing or introducing plants or animals, by polluting the environment; by destroying habitats and by rapidly increasing their own numbers humans can cause major changes, some of which may be irreversible.⁷

(ii) MEANING AND DEFINITION OF POLLUTION:

Pollution means the act of polluting or the condition of being polluted; it has the meaning of defilement or impurity caused by contamination.⁸

To pollute means to render ceremonially or morally impure; to make physically impure, foul or filthy.

In England, the Environment Protection Act defines Pollution of the Environment to mean 'pollution of the environment due to the release (into any environmental medium) from any process of substances which are capable of causing harm to man or to any other living organism supported by the environment. The same Act defines a few other expressions also which are relevant to the subject of Environment. Therefore, under this Statute, the expression 'Harm' means harm to health of any living organism or other interference with ecological systems of which they form part, and in the case of man, includes offence caused to any of his or her senses or harm to his or her property, and harmless has a corresponding meaning. And 'Process'  

means any activities carried on in Great Britain, whether on premises or by means of mobile plant, which are capable of causing pollution of the environment and 'prescribed processes' means a process prescribed under Sec. 2 (1).

(iii) KINDS OF POLLUTION:

(a) Environmental Pollution Environmental pollution is a term that refers to the ways in which people pollute their surroundings. People pollute the air with gases and smoke, poison the water with chemicals and other substances and damage the soil with too many fertilizers and pesticides. People also pollute their surroundings in various other ways. For example they ruin natural beauty by scattering rubbish and litter on the land and in the water. They operate machines and motor vehicles that fill the air with disturbing noise. Nearly everyone causes environmental pollution in some way.

(b) Air Pollution: Air Pollution turns clear odourless air into hay, smelly air that harms health, kills plants and damages property. People cause air pollution both outdoors and indoors. Outdoor air pollution results from pouring hundreds of millions of tons of gases and particulates into the atmosphere each year. One of the most common forms of outdoor pollution is smog. Indoor air pollution results from many of the same substances found outdoors. But indoor pollutants can present a more serious problem because they tend to build up in small areas from which they cannot easily escape. Most air
pollution results from combustion processes. The burning of petrol to power motor vehicles and the burning of coal to heat buildings and help manufacture products are examples of such processes. Each time fuel is burned in a combustion process some type of pollutant is released into the air. The pollutants range from small amount of odourless poison gas to clouds of thick black smoke.

The harmful effects of air pollution are that: harmful gases or particles may be inhaled by people or animals, or may attack the skin, causing ill-health or death; gases may damage leaves and shoots of plants, reducing amenity and the yields of crops and trees; particles of substances which settle out into soil or vegetation may cause damage or contaminate human or animal food.

Irreparable damage was caused once in December, 1984 when there was a leakage of the Mythel I cocyanide gas from a US based multi-national company in Bhopal. The Union of India had taken the matter seriously and gone up to the Courts of United States seeking compensation for the victims from the multi-national company.

The Bhopal Gas Tragedy was one event but with the air pollution recurring so often in so many places and there being no action against such a pollution there is a far greater threat of environmental degradation taking place from air pollution.
Air pollutants may also damage the climate. Both gases and particulates can cause changes in the average atmosphere of an area. Particulates scatter the Sun's rays and reduce the amount of the sunlight that may cause average atmosphere in an area to drop. Some gases including carbon dioxide allow sunlight to reach the ground but prevent the Sunlight's heat from rising out of the atmosphere and flying back into space. The warming of the Earth's surface that results is called greenhouse effect.\(^9\)

(c) **Noise Pollution:** Air Pollution can also arise from noise created by people against the rules and regulations issued by Government. In India, the Air (Prevention & Control of Pollution) Act was amended to deal with the problem arising from noise treating noise as a pollutant when it is not in accordance with the prescribed guidelines. The problem of noise pollution has been recognized since Roman times and is not to be considered solely as a problem of our mechanized age. However, over the last few years there has been a significant increase in the incidence of this harmful activities.

Under the Environment (Protection) Act, 1986 rules for Noise Pollution have been framed which prescribe permissible limits of noise in residential, commercial, industrial areas or silence zones.

(d) **Water Pollution** Water Pollution reduces the amount of pure, fresh water that is available for such necessities as drinking and cleaning, and for such

activities as swimming and fishing. The pollutants that affect water come mainly from industries, farms and sewerage systems.

Environmental Law addresses itself to the problem of Water Pollution in view of the fact that Water is one of the most precious of the Natural Resources; it is a permanent asset of mankind and is not intended to be exhausted in one generation. Besides that like any other Natural Resources it has got to be tapped for the purpose of social development and with the intention that ecology and environment are not affected in any serious way. There should not be any depletion of water resources in any way and long term planning needs to be undertaken to keep up the national wealth.

(e) Industrial Pollution: The most important problem in the industrialized world of today is that of pollution. The development of crowded industrial cities in 1700's and 1800's made pollution a major problem. Peoples and factories in these cities put huge amount of pollutants into small areas of the environment. During the 1900's urban areas continued to develop and cars and other new inventions made pollution steadily worse.

Industrial pollution was small-scale and local until the advent of large and concentrated populations and large industrial outputs. Early examples include mining and refining of gold, which requires the use of mercury and lead—a problem in the Roman Empire; tanning of leather, which used large quantities of acid, lime, alum, oil and mercury, which, together with the
remains of the hides, were often disposed of in local rivers; cotton dyeing and sugar refining, which polluted water; and linen bleaching fumes from alum factories and ammonia fumes from cement works.

Solutions in these cases took the form of ‘command and control regulations’ to restrict output or require the use of technologies to reduce emissions or make them less harmful when the pollution resulted in air, water and soil degradation to the larger community. In cases in which the costs of pollution were primarily borne by the producers the cure involved private decisions to change production methods, once the source of the problem was understood.

Since World War II, most industrial pollution resulted from the burning of fossil fuels and heavy industrial production, such as that of iron and steel, other metals, and chemicals. Since then, other serious pollution problems have derived from the increased manufacturing of synthetic chemicals. Many of them are highly toxic and also resistant to degradation by natural processes; so they accumulate in the environment. Examples of their appearance include: the switch from soap to detergent (phosphates) and using synthetic fibers in place of natural fibers; pesticides and polychlorinated biphenyl; industrial accidents releasing toxic chemicals; leakage from toxic waste dumps; nuclear accidents and chlorofluorocarbons, which contribute to the destruction of the earth’s ozone layer.
Air pollution has further added to the intensity and extent of the problem. Every year millions of tons of gaseous and particulate pollutants are injected into the atmosphere, both through natural processes and as a direct result of human activities. Scientists have pointed out that earth's atmosphere cannot absorb such unlimited amount of pollutant materials without undergoing changes which may be of an adverse nature with respect to human welfare. In order to survive in his planetary home will have to strike the harmonious balance with nature. There may be boundless progress scientifically which may ultimately lead to destruction of man's valued position in life.

(f) Solid Wastes: This is the most visible form of pollution. People throw away billions of tons of solid material each year. Much of this waste ends up littering roadsides, floating in lakes and streams and collecting in ugly dumps. Examples of solid wastes include abandoned cars, tyres, refrigerators and cookers; cans and other packaging materials and scraps of metal, paper and plastic. Such solid pollutants are most common in the heavily populated areas in and near cities. Slag and other wastes from mining processes pollute much land away from cities.

Solid wastes present a serious problem because most of the methods used to dispose of them result in some type of damage to the environment. When the wastes are put into open dumps, they ruin the attractiveness of the surrounding areas. Dumps also provide homes for disease-carrying animals,
such as cockroaches and rates. Some solid wastes can be destroyed by burning them. But burning produces smoke that causes air pollution. When wastes are dumped in water, they contribute to various forms of water pollution.

(g) Other Kinds of Pollution: The things that pollute the environment cannot be classified as air, water or soil pollutants, or as solid wastes. They travel through and affect various parts of the environment. These pollutants include noise, radiation, acid rain, pesticides and such metals as mercury and lead.

Noise is an especially troublesome pollutant in urban areas. People in and near cities are exposed to loud noise much of the time. The noise comes from such things as airplanes, buses, cars, motorcycles, trains, trucks, construction projects and industries. The noise causes discomfort in human beings. In extreme cases, noise can also damage hearing or even cause deafness.

Radiation is an invisible pollutant that can be highly dangers. Nuclear radiation comes from radioactive substances, including waste from nuclear weapons testing and from nuclear power plants. Small amounts of electromagnetic radiation are produced by a variety of electronic devices, including computers, lasers, microwave ovens, televisions and X-ray machines.
Acid rain has become an increasingly serious problem. This pollutant forms when moisture in the air combines with nitrogen oxide and sulphur dioxide released by motor vehicles, by factories, and by power plants that burn coal or oil. The reaction between the moisture and the chemical compounds produces nitric and sulphuric acids, which fall to the earth with rain or snow.

Pesticides affect more than the natural cycles in soil and water. Much pesticides material never reaches the insects or other pests it is intended to kill. Instead, tiny particles of the pesticides travel through the air and water, sometimes for greater distances. Human and animals that come in direct contact with the pesticide take it into their bodies, and the material collects in tissues and organs. Humans and animals also take in pesticides indirectly when they eat organisms that contain the material.

(h) Causes and Consequences of various kinds of environmental pollution

Wherever there are living creatures there is environment. Among all living creatures human beings are the most intelligent, but the problem is every human being uses his intellect to develop his personality and his property and these activities have their impact on the surroundings of the human beings. Like this developmental activities over the world are seen in social, cultural, economic, scientific and technological matters. But there is the
effect of every developmental activity on environment, therefore it is said that Development often is equally proportionate to the menace of environmental pollution; wherever there is development there is pollution. It is a strange paradox of human civilization that Progress and Pollution go together, therefore there is needed to know as to what is to be understood from progress by means of Development and how Development of Society needs to be balanced in terms of environment protection. The development of environment these days is mostly through the scientific or technological activity but the problem is that almost every developmental activity goes to create a problem of environmental pollution.

Generally speaking, Development is nothing but improving the well being of people. Raising the living standards and improving the conditions of health, education, and equality of opportunity which are considered to be essential components of economic development. Economic growth is an essential means for enabling development. But 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 for this reason that the authorities have a responsibility to reduce, in the process of development, the element of hazard or risk to the community by taking necessary steps by adopting such measures as would pose the least risk of danger to the community and would maximize the safety requirements.
There are various kinds of environmental pollution; all parts of environment are closely related to one another. Because of close relationship any pollution that harms one part of the environment may also affect others. For example, air pollution harms the air. But rain washes pollutants out of the air and deposits them on the land and in bodies of water. The wind on the other hand blows pollutants off the land and into the air.

Environmental pollution is a term that refers to the ways by which people pollute their surroundings. People pollute the air with gases and smoke, poison the water with chemicals and other substances and damage the soil with too many fertilizers and pesticides. People also pollute their surroundings in various other ways. For example they ruin natural beauty by scattering rubbish and litter on the land and in the water. They operate machines and motor vehicles that fill the air with disturbing noise. Nearly everyone causes environmental pollution in some way.

Environmental Pollution is one of the most serious problems facing humanity today. It causes global warming—destruction of the Ozone layer and other potential disastrous processes. Air, Water, and soil—all harmed by pollution, are necessary to the survival of the living things.

Badly polluted air causes illness and even death. Polluted water kills fish and other marine life. Pollution of soil reduces the amount of land
available for growing food. Environmental pollution also brings ugliness to the naturally developing world.

Everyone wants to reduce pollution. But the pollution problem is as complicated as it is serious. It is complicated because much pollution is caused by things that benefit the people. For example, exhaust from cars causes a large percentage of air pollution. But the car provides transportation for millions of people. Factories discharge much of the material that pollutes air and water. But the factories provide jobs for people and produce goods that people want. Too much fertilizers and pesticides can ruin the soil but fertilizers and pesticides are important aids to the growing of crops. Thus to end or greatly reduce pollution immediately people would have to stop using things that benefit them. Most people do not want to do that of course. But pollution can be greatly reduced in several ways. Scientists and Engineers can work to find ways to lessen the amount of pollution which the things like cars and factories cause. Government can pass and enforce laws that require business and individuals to stop certain pollution causing activities, and perhaps most importantly individuals and groups of people can work to persuade their representatives in Government and also persuade the businessmen to take action towards reducing pollution.

People have always polluted their surroundings. But throughout much of history pollution was not a major problem. People lived in uncrowded rural areas and the pollutants (waste products) they produced were widely
scattered. People had no pollution causing machines. By the mid 1900's pollution had affected the water in every major lake and river in the area over every major city of the industrialized countries.

The development of crowded industrial cities in 1700's and 1800’s made pollution a major problem. Peoples and factories in these cities put huge amount of pollutants into small areas of the environment. During the 1900’s urban areas continued to develop and cars and other new inventions made pollution steadily worse.

The most important problem in the industrialized world of today is that of pollution. In earlier days, when the scale of industry was relatively small, firms were able to improvise their own solutions, as when, at the close of the 19th century, the Sumitomo copper refinery in Japan was removed to Shisaka Islands in the Inland Sea, away from the populated areas. Similarly, in the second decade of the 20th century, the Hitachi Company undertook to construct a smokestack of extraordinary height at one of the mines in order to prevent smoke damage to the surrounding community. But, from the 1930s onward, little was done to counter the damaging effects of industrial expansion, with the result that urban areas began to suffer from air pollution on a large scale. Several new diseases were added to Japanese medical terminology.
(iv) NATURE AND SCOPE OF ENVIRONMENTAL LAW

A wide variety of definitions have been offered by modern textbook writers in their effort to give a clue to the vast scope of environmental law. There wasn't a separate branch of law earlier known as environmental law; matters relating to environment such as nuisance, trespass etc. were covered by the Law of Torts which formed part of the Private Law. In certain cases as those which required the remedy of injunction etc. the rules of Civil Procedure Code or the rules of Criminal Law were applicable to the situations. But with the development of civilization and culture the rules and regulations of the Public Law including the Constitution have become applicable. The problems are so intricate that the rules and principles of various branches of law have been pooled together and a distinct body known as the environmental law has come up. Environmental Law is a hybrid of the rules of private law and public law.

Environmental Law has developed to such a vast extent that there is today coherent basis of applicable theory and principles. More prosaically, the tackling of environmental harms through law earlier had focused on the degradation of the quality of environmental media, particularly air, water and land, more especially where there were threats to human health with limited incursions into other aspects of natural resource protection, including conservation and biodiversity.
Thanks to its vast development in various matters, environmental law has by now focusses upon a good number of matters. It encompasses tasks such as the management and control of pollution, toxic wastes, and activities that are prejudicial to health. It has moved on to address more complex harms, often by products of technological development such as the chemical impacts of lead ingestion on the neurological functions of organism; and the ozone depletion in the upper atmosphere. Today there are many intractable problems that follow in the wake of the atmospheric build-up of greenhouse gases especially carbon dioxide and methane. Policy and Law have a great contribution to make towards countering the grave risk involved in the matter of protecting the environment. At this stage it is pertinent to explain what is meant by environment and what are the various forms in which the problems of environmental pollution arise.

(i) Significance of Environmental Law

Every individual is expected to know the law. A fundamental principle in jurisprudence is that “ignorance of law is not excusable.” However, the fact remains that most people are unaware of the law and of their legal rights. Often, people play the role of mute spectators to many serious problems that threaten their peaceful lives primarily because they are ignorant of their rights under the law. One such problem is the various types of environmental degradation which every citizen faces, such as the exhaust from automobiles, the obnoxious smells from open drains, loud music and other noise, polluted
drinking water, and so on. These problems can be solved with the aid of specific laws that have been formulated for the purpose.

Environmental protection is a fundamental duty of every citizen of this country under Article 51-A (g) of our Constitution which reads as follows:

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

The C.P.R. Environmental Education Centre has several years of experience in the field in environmental education. The need to incorporate environmental legislation into the training programmes resulted in the organization of awareness-raising seminars on "Environmental Protection, People and the Law" for NGOs, Lawyers and law students.

According to the Ministry of environment and Forests Government, of India, 6624 cases have been filed by the Central Pollution control Board (CPCB), State Pollution Control Boards (SPCBs) and the Pollution Control committees (PCCs) of the Union Territories as on 31.10.1997 under the Water and Air Acts. Of these, 2947 cases have been decided and 3677 cases are pending in various courts. The problems in filing the cases are many: a lack of awareness on the part of the public, their fear of the delays in the judicial system and the lack of interest shown by the legal community in taking up
environmental cases which earn minimal fees. Obtaining evidence is difficult and no lawyer would risk losing cases on the grounds of lack of evidence, however, committed he is to society. The loopholes in environmental laws make it easier for the lawyer to support the cause of the polluter than that of the affected, besides being more remunerative.

All these factors have strengthened the Centre's belief that experience-sharing in this field would be of immense help and inspiration to young lawyers and to various sections of society, particularly NGOs and environmental activists. This publication is a ready guide to the availability and utilization of existing laws by affected persons who may not be able to undertake a detailed study of the original. It covers the various heads constitutional provisions, the various Acts and some important lists. This information is dealt with in the form of questions and answers to facilitate easy reference.

Over the years, there has been a considerable growth in the field of environmental law. Environmental, Tribunals, Green Benches and a National environmental Appellate Authority have been constituted, while the mandatory Public Hearing is a new and welcome development. Environmental Impact Assessment and Environmental Audit are important developments to control pollution.
(ii) The Content of Environmental Law

The content of Environmental Law at the national level is the Statutes enacted by the national legislatures. These statutes derive their force from the Constitution and an interpretation of these Statutes is in the decisions rendered by the Courts. The Statutes are preceded by policy formulations of the Executive branch of government. These are therefore the sources of environmental law whose content can reveal to us the rigour and relevance in the system of laws meant for the protection of environment and the people.

India has excellent laws to protect the environment, what is needed is implementation, which is the equal responsibility of the industry and the public. Some of the laws and rules which are mandatory before the establishment of an industry.

There are three key policies relating to environmental protection in India. They are:

- The National Forest Policy, 1988
- Policy statement for Abatement of Pollution, 1992
Based on the above policies, the different statutes/legislations enacted in India exclusively for environment protection are:

- The Water (Prevention and Control of Pollution) rules, 1975
- The Water (Prevention and Control of Pollution) cess Act, 1977
- The Water (Prevention and Control of Pollution) cess Rules, 1978
- The Air (Prevention and Control of Pollution) Act, 1981
- The Air (Prevention and Control of Pollution) Rules, 1982
- The Environment Protection Act, 1985
- The Environment (Protection) Rules, 1986
- Hazardous Waste (Management and Handling) Rules, 1989
- Manufacture, Storage and Import of Hazardous Chemical rules, 1989
- The Forest Conservation Act, 1980
- The Forest (Conservation) Rules, 1981
- The Wildlife Protection Act, 1972
- The Wild Life (Transactions and Taxidermy) Rules, 1973
- The Wild Life (Stock Declaration) Central rules, 1973
• The Wildlife (Protection) Licensing (Additional Matters for Consideration) Rules, 1983

• The Wildlife (Protection) Rules, 1995

• The Public Liability Insurance Act, 1991 etc.

• The Public Liability Insurance rules, 1981

• The National Environment tribunal Act, 1995

• The National Environment Appellate Authority Act, 1997

Though certain laws existed in the pre-Independence era in our country, there is a difference between the laws that were enacted before and the laws that were enacted after independence. The pre-independence laws did not deal with environmental protection exclusively. For example, the Indian Penal Code (IPC), 1860, had a chapter (chapter XIV) which dealt with offences affecting public health, safety and convenience, which covered aspects like water, air and noise pollution, whereas the post-independence laws mentioned above deal exclusively with environmental protection.

The Indian Penal Code has a chapter on offences affecting Public health, Safety, Convenience (chapter XIV). Sec. 268 provides that “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 persons who may have occasion to use any public right." The section further explains that a common nuisance is not excusable on the ground that it causes some convenience or advantage. Other concerned provisions are: a "negligent act likely to spread infection or disease dangerous to life", (sec 270 I.P.C.), "making atmosphere noxious to heath" (sec. 278 I.P.C.). But the essential requirement of the provision to punish a man is the guilty intention of the accused, i.e. either the act of the accused should be negligent, malignant or voluntary, which vitiates the atmosphere. In case of public nuisance, the Penal Code provides for fines up to Rs. 200/- by way of punishment (Sec. 2901.I.P.C.) and for making the atmosphere noxious to health Rs. 500/- only (Sec. 78 I.P.C.). The punishments are too meager to meet the objectives. With these penal provisions, it is not possible to check environmental pollution.

The State's responsibility with regard to environmental protection has been laid down under Article 48-A of our constitution, which reads as follows:

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

Article 21 of the constitution is a fundamental right which reads as follows:
“No person shall be deprived of his life or personal liberty except according to procedure established by law.”

Though this Article does not explicitly mention the environment, the Supreme Court and the various High courts of the country have given a wider interpretation to the word “life” in this Article. According to the courts, the right to life includes the right to a living environment congenial to human existence.

Article 48-A of the Constitution comes under directive Principles of State Policy and Article 51 A(g) of the constitution comes under fundamental duties. Unlike Fundamental Rights, violation of Directive Principles of state policy or fundamental Duties cannot be questioned in a Court of Law.

The State’s responsibility with regard to raising the level of nutrition and the standard of living and to improve public health has been laid down under Article 47 of the constitution which reads as follows:

“The State shall regard the raising of the level of nutrition and the standard of living of its people and the improvement of public health as among its primary duties and, in particular, the State shall endeavour to bring about prohibition of the consumption except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health.”
The 42nd amendment to the Constitution was brought about in the year 1974. Two new Article were inserted; Art. 48-A and Art. 51-A(g). the former, under Directive Principles of State Policy, makes it the responsibility of the State Government to protect and improve the environment and to safeguard the forests and wildlife of the country. The latter, under fundamental duties, makes it the fundamental duty of every citizen to protect and improve the natural environment including forests, lakes, rivers and wildlife and to have compassion or living creatures.

(iii) Rationale of the Environmental Law:

The problem of environmental pollution has been there with almost every civilization since ages together. But now the problem has reached new peaks. This is partly because the volume of waste generated by our expanding society is itself expanding correspondingly, and partly because the satisfaction of more immediate needs by past economic growth has led to an increase in the demand for environmental oriented activities. To fish or swim in unpolluted rivers, to walk or climb in unspoilt areas of natural beauty; to look at clean buildings undamaged by air pollution; or simply to live in a clean, quiet environment; all these seem to have acquired a more important place in our society's scale of values in recent decades. The questions relating to Society's response may be divided into three groups. The group concerns society's objectives with respect to pollution control. The second group of
questions concerns the 'causes' of the pollution problem. And the third group relates to government policy and pollution.

The first group of questions is aimed at considering the problem whether the aim of legislation should be to eliminate pollution altogether or ignore it as an overrated problem and find some kind of balance between allowing the activities to go on and deal with the harmful effects of it.

The second group of questions concerns the 'causes' of the pollution problem. Why is pollution a problem? Is it related to the social, economic or political activities?

The third group relates to government policy and pollution. What methods should government use to control pollution. Not the scientific or technological methods but the legal norms which are basically concerned with the conduct of persons.

It is a demonstrable fact of every society that pollution exists in some form or the other. No society has reduced pollution to zero and it is unlikely that any ever will. So, pollution as a problem is inherent within every social system and it gets aggravated by a spur in the economic activities which results in an increasing level of pollution and makes it difficult for governments to adopt the remedial measures at a reasonable cost.
Apart from the questions referred to above the fundamental question is whether Government can interfere with the activities of the individuals, which activities are permissible under the law of the State; if so, on what grounds. The answer is: An individual no doubt has property rights but then the misuse of this right is beyond the scope of the right which law has given to him. If a person who owns a piece of property has no doubt certain rights over the use of that property. If he owns a car, for example, then he has the right to drive when he wants; the right to allow other people to drive it; and the right to prevent other people driving it. If a person owns a house, he has the right to live in it or to rent it out for someone else to live in. However, it is important to emphasize that very rarely will he have the right to do anything he pleases with his property. In no civilized society will a person ever have the right to knock down people with his car or to drive it at top speed through urban areas. Similarly, if a person is an owner of the house, he will have right to use that house for living in the house, but seldom will he have the right to use his house for a brothel or bomb factory. Thus, the owner of a property confers upon, by virtue of his ownership, a carefully restricted set of rights as to the use of that property. Ownership of property means nothing more and nothing less than the ownership of certain rights.

One of the most important rights that a property owner has is the right to sell his property. He can transfer all the rights he possesses with reference to a particular piece of property to another person and obtain some
compensation in return. However, there are some resources in our economy over which no one has any rights: air is one and water is another.

(iv) Remedial Aspects of the Environmental Law

As a consequence of this argument, certain remedies for the pollution problem do arise, and they are spelt out in the legislative measures of the State. In India, as in most other countries, the legislation on Environment has the object of controlling, preventing and protecting the environment. The powers given to the authorities to remedy the wrong done by Environmental Pollution are based on this legal theory.

The regulatory controls exercised by the authorities of the State in regard to Environmental Pollution may be analysed as under:

1. **Criminal Liabilities**: Non-compliance with the regulatory measures results in a number of criminal offences. The regulating agencies have to resort to prosecution of the persons violating the environmental legislation. Private prosecution is also possible. Fines will be the normal penalty; though in a number of cases sentences of imprisonment have been imposed (There is normally a potential personal liability for directors and senior managers).
2. **Administrative Sanctions:** In most regulatory systems there is a range of options available to the regulator including variation, suspension, or revocations of a licence. Since these steps may lead to the closure of a plant, they are of great importance.

3. **Clean Up costs:** In most environmental legislation there is a power to clean up after a pollution incident and receive the cost from the polluter or (in some cases the occupier).

4. **Civil Liability:** Interest has been growing among the authorities to develop a new branch of law with regard to liability for environmental torts which is getting the name of 'toxic torts', although many of the actions have in fact been around for a long time. Many environmental actions rest upon strict liability.

5. **Adverse Publicity:** Apart from civil and criminal liability there is now the rule of giving adverse publicity to the name of the polluter which has the effect of bringing his reputation down and reducing the value of his products in the market.