

international environmental law. In this context, the study commented in some detail on the significance of the principles relating to State responsibility and tortious liability on the one hand and the doctrine of abuse of rights on the other.

The relevance of the principles relating to State responsibility arising as a consequence of a breach or non-performance of an international obligation was also dealt with. Reference was made to the principles of traditional and modern international law, under which a State is held liable for a breach or non-performance of an international obligation and which obliges a State which has committed a wrongful act or omission to make reparation for the injury caused.

But, as regards the doctrine of 'Abuse of Rights' (*abus de droit*) it was pointed out that although it had found its place in the writings of jurists and in several judgments of the International Court of Justice, it had yet to crystalize as a principle or norm of international law.

The study reviewed the progress of the UNEP's Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States. The study also contained a synopsis of important treaties and conventions in the field of environmental law.

During the course of the discussion at Kuala Lumpur it was pointed out that although several countries already had laws in regard to various aspects of environment such as land use, industrial pollution etc., they were scattered in various parts of their statute books. It was felt that such laws should be expanded or clarified by statute or through interpretation by courts to adapt them to meet modern environmental problems. Discussions also centred around the question which concerns developing countries in particular, namely, the need to strike a balance between measures to control and manage pollution and the formulation and implementation of national policies for industrial development.

It was pointed out that State practice had not developed sufficiently in this field to provide guidelines for the development of international environmental law.

It was observed that a large number of developing countries of the region did not have any consolidated environmental legislation and most of the legal instruments on this subject needed to be updated.

For the Baghdad Session the Committee's Secretariat prepared a questionnaire together with detailed explanatory notes. The brief of document for this session also contained a summary of the work of the Organization for Economic Co-operation and Development (OECD) on transfrontier pollution.

The Committee took up for consideration the topic of environmental law at the Seventh Plenary Meeting held on 26th February 1977. In the course of the general debate, one delegate suggested that international law relating to environmental pollution should be founded on the following considerations:

- (a) Consistent with the principle of sovereign equality of all States, each State should have due regard to the rights of other States while exercising its rights in its own territory;
- (b) No State should utilise its own natural resources to an extent which will affect the environment of another State and thereby result in injury to the health, hygiene and sanitation of the people of another State;
- (c) In the case of an international river, a country should not do such things as would result in the reduction of natural flow of water of such river to an extent so as to adversely affect the health, hygiene

and security of the people of another country in as much as it will amount to an interference with the ecological balance which nature has bestowed on it;

- (d) Provision for indemnification or compensation to an aggrieved party;
- (e) Provision for mandatory mutual consultation and agreement when new method or change in the utilisation of shared natural resources is undertaken or planned; and
- (f) Provision for peaceful settlement of disputes through a compulsory machinery.

A questionnaire finalised at this session was widely circulated among all the Asian-African States, a few states from other regions and selected international organizations dealing with the environmental law problems.¹

The brief of document circulated by the Committee for Doha Session held in January 1978 contained the text of the Questionnaire, texts of replies received from the Governments upto the end of 1977, a review of major international conferences held in the field of environmental law in 1977 and a brief summary of the activities of various international organizations engaged in the development of environmental law.

During the discussions at the Doha Session, reference was made to the work programme of the U.N. Economic and Social Commission for Asia and the Pacific (ESCAP) and it was urged that the Committee and ESCAP should co-operate their activities in the field of environmental law. It was suggested that the Committee should collect the data and information concerning the protection of the marine environment of the Gulf undertaken by the countries of the region in co-operation with the UNEP.

¹ Full text of the questionnaire is reproduced on the following page.

Several delegates made brief observations on the usefulness of convening an expert group meeting on environmental law. It was agreed that the Secretary-General should convene the meeting of an expert group at an appropriate time and in the meantime all member governments were requested to send their replies to the Questionnaire.

QUESTIONNAIRE ON ENVIRONMENTAL LAW

1. *What are the main environmental problems encountered in your country and the sources of pollution?*

Note: Environmental pollution is any change in the natural quality of the environment resulting from certain physical, chemical or biological factors. These factors vary according to the stage of industrial development, geographical situation, economic and social factors of a country. It is obvious that environmental problems of developing countries are essentially different from those of the developed world. In the latter case the problem of environmental pollution is mainly because of high industrialization and growing urbanisation, but the problems of developing countries mainly revolve around the process of development.

2. *What are the laws and regulations in force as also any proposed legislation to combat environmental pollution on inter alia the following fields:*

- (i) Atmospheric pollution including control of smoke nuisance.
- (ii) Water pollution.
- (iii) Protection from noise.
- (iv) Soil conservation.
- (v) Conservation of forests, flora and fauna.

- (vi) Regulation in the matter of use of chemicals.
- (vii) Regulation in the matter of discharge of waste.
- (viii) Human settlements.
- (ix) Protection from Radiation.
- (x) Protection of cultural property and monuments.

This list is not exhaustive but illustrative.

Note: Legal regulation is an important instrument to prevent and control pollution of the human environment. Such laws and regulations generally deal with both regulatory and preventive aspects. The regulatory measures are intended to deal with existing pollution problems and steps to control them. Whilst the preventive aspect is designed to control the occurrence of fresh sources of pollution and to arrest any possible deteriorating situation. Laws relating to regulation and control of pollution are often scattered over the statute book concerning various branches and include such subjects as health, agriculture, industry, forestry, etc., as also those directly related to pollution such as smoke nuisance, water, etc. It is desirable to collect together all such legislation in order to have a clear picture about the fields which need to be covered.

The position in regard to various aspects of the laws and regulations may be summarized as follows:—

(i) Legal control of air pollution

Atmospheric pollution occurs because of introduction of several gaseous and particulate substances both natural and those arising as the direct result of human activities such as, power production, industries and transport. In adopting any air pollution control legislation, the main emphasis is on the

sources of pollution and the measures for their control including the organization of surveillance. The usual practice is to fix 'air quality' standards. The standards set up for emission of fuel gases from chimneys are different from those of the quality of general atmosphere. Certain provisions concerning authorisation to enter factories and other premises to carry out inspection activities are also made in order to determine the air quality standards. As regards pollution from motor vehicles and other transport systems, the legislations often provide for the use of certain types of fuel and compulsory equipment of exhaust pipe and muffler for every motor vehicle. Even in some of the developing countries laws do exist for protection against smoke nuisance and emissions through factory chimneys.

(ii) Water pollution

The need to regulate and control water resources utilisation can hardly be over-emphasized. Many countries do have legislation but their scope as such has not been adequate to draw the balance between the limited water resources against the growing needs. Besides, today's concept of 'water management system' may call for a new approach. Legislation to control water pollution should normally provide for adequate supply of safe water for drinking and other uses, waste water treatment including collection, treatment and disposal of domestic sewage and other water-borne wastes and the control of the quality of surface and ground water.

(iii) Protection from noise

Regulation of noise pollution forms an important part of the protection of human environment. The legislation has to determine the maximum permissible noise level for working, dwelling as well as recreational environment. In addition, special legal regulations as regards the noise produced by motor vehicles and aircraft (especially super-

sonic) have to be enacted keeping in view the existing technological developments in these fields.

(iv) Conservation of land and soil

Soil is an important component of every ecological system. The legal regulation governing protection of land and soil may vary according to their use as agricultural land, arable land, meadows and pastures. Similar provisions should also be included to cover non-agricultural land being used for water-reservoirs, fish ponds, dykes protecting agricultural land against flooding or water seepage and protective terraces against erosion.

(v) Conservation of forests, flora and fauna

The influence of forests in balancing the climatic conditions is of immense importance. Unfortunately, the indiscriminate cutting of forest trees for fuel has created a 'firewood' crisis in many parts of the world. In order to meet this challenge, besides planning an alternative fuel strategy, the enactment of stringent legislation to protect these valuable resources should achieve priority. These regulations may cover matters such as protection of forest land, cultivation of forests, categorisation of forests and scientific management of forest resources. Closely connected with this is the protection of nature which in the narrow sense means protection of national parks and other protected landscape areas containing rare flora or fauna. This generally involves proclamation of a specified area as protected one and certain activities prejudicial to the preservation of that area are prohibited by laws. Rare species of animals, birds and mammals whose existence is endangered are also given special protection.

(vi) Regulation of use of chemicals

The production and use of synthetic chemicals are of recent origin coinciding with the development of modern

technology based on agriculture. Among these chemicals, pesticides are the most commonly used substances which pose direct and indirect environmental health hazards.

(vii) Discharge of wastes

Management of solid wastes poses not only the problem of disposal but also of collection, storage and processing. Sometimes attempts to solve a liquid wastes problem may lead to a solid wastes problem, i. e. disposal of sludges. In some cases the incineration of solid wastes may lead to the problem of air pollution.

(viii) Human settlements

The fundamental objective of human settlement is how to improve the quality of human life. The growing population and unplanned urbanisation in recent years have increased the complexity of problems of food, shelter and sanitation. The task of finding solutions to these problems is the greatest challenge for both developed and developing countries. Policies, strategies, plans and programmes on human settlements cannot be elaborated or implemented unless they are backed by proper and effective legislation. Because of their complexities and rigidity of existing laws and regulations related to human settlement, progress has rather been too slow. Needless to say, the aim of new legislative framework to deal with human settlements must be to ensure that laws and regulations are simple and flexible taking into account changing needs of the society.

(ix) Protection from radiation

Although the potential usefulness of ionising radiation in medicine and research cannot be questioned, the problem of safeguarding people against radiation hazards, remains unsolved. The acute effects of radiation may occur in water, air, soil and food resources. In addition,

the increasing use of nuclear plants for power production, nuclear testing and other uses of nuclear explosives pose radiation hazards of great magnitude.

(x) Legal protection of cultural property and monuments

Cultural property and historical monuments are an important part of human life and environment. Several countries have adopted legislation to give care and protection to these properties. These legislations, in general, specify in greater detail the activities and organisation of national, regional and local agencies, and prohibit the economic activity that would impair the natural condition of the protected cultural property.

3. *Have any steps been taken by your Government in the matter of assessment and control of environmental pollution by appointment of expert bodies or committees? If so, kindly indicate the nature and functions of such bodies and reports, if any, submitted by them.*

NOTE: In several countries special committees and expert bodies have been appointed in recent years to combat the problem of pollution. The reports of these bodies provide valuable data regarding the causes of pollution, assessment of harm caused, as also remedial measures.

4. *What are the agencies and institutions which are responsible for administration and implementation of environmental legislation in your country at the national, regional and local levels?*

NOTE: The organisation of bodies and agencies responsible for implementing and administering environmental policy varies from country to country. In many of the developing countries the infrastructure of such an organisation is still in rudimentary stage. A three-tier structure consisting of national, regional and local government units is usually set up

to deal with environmental problems at various levels. The national agency formulates the policy and draws the guidelines. The regional and local government departments supervise the implementation of these policies and programmes. Since the environmental control programme is essentially of inter-disciplinary character, various ministries and departments such as health, agriculture, science, technology, industry, law and justice are involved in their own spheres both at the national and regional levels. The organizational pattern thus plays a crucial role in the formulation and implementation of the national environmental control policy. The aim, therefore, should not only be to avoid duplication and overlapping but proper coordination of responsibility at all governmental levels.

5. *What are the provisions in your country's various environmental legislations which deal with the implementation aspects and more precisely concerning:-*

(i) *Penalties—criminal and civil;*

(ii) *Tribunals, courts and other judicial institutions; and*

(iii) *Judicial protection of individual's rights.*

NOTE: It is a well recognised fact that the backbone of any legislative system is its enforcement or implementation machinery. This is perhaps more true in the case of environmental pollution. Enforcement will be easy and effective if the environmental law contains detailed rules, broader discretionary powers of the authority and provisions for an adequate administrative structure of the authority. Further, establishment of a system of monitoring and surveillance is now increasingly used to enhance the effectiveness of the enforcement machinery. Finally, sanctions both in the forms of civil and criminal actions provide the real teeth to the enforcement machinery. Imposition of fines is a common method for deterring polluting activities. Many laws

provide for penalties to be imposed on persons found guilty of an offence. The determination of the body which will be responsible for imposing penalties, the possibilities of appeal against its decision, the kind of penalty etc., vary in accordance with the legal systems. Not all legislations have given adequate attention to the question of settlement of environmental disputes. Should there be special courts or tribunals or alternative means of settlement? These are a few important questions which require urgent consideration.

A recent world-wide trend appears to stress the role of citizens in the enforcement of environmental legislation. In several industrialised countries, environmental law recognizes the right of citizens to sue for damages and injunctive relief in a court of law or administrative agency. A few others provide for such a right only for an association of citizens. Whether such rights should also be in the developing countries' environmental legislation or not, has to be considered carefully. One can and should not ignore the fact that the nascent industrial development in the developing countries may not be throttled by the over-enthusiasm of public participation. A reasonable balance between the State authorities' prudent decisions and honest public dissent has to be maintained. The development of environmental law and institutions has to be pragmatic. It may therefore, be desirable initially to vest the right to institute proceedings only in the Attorney-General on behalf of the community.

6. *What, in the opinion of your Government, should be the proper steps to deal with the pollution problems which are predominantly international in character, i. e. trans-frontier pollution?*

NOTE: Trans-frontier pollution has been described as pollution originating in one country and having its effects within other countries. The major trans-frontier pollution problems include river pollution, ocean pollution and air-

borne contamination. Rivers that flow from one country to another, or form the boundary between two States are polluted by several types of wastes discharged into them. Ocean, generally, is polluted in five ways:-

- (i) River discharge;
- (ii) Atmospheric transport followed by washout with rain;
- (iii) Ocean dumping by ships and other vessels;
- (iv) Coastal discharges; and
- (v) Exploration and exploitation of the sea-bed resources.

These pollutants are of many and varied nature, and include metals, synthetics, chemicals, petroleum hydrocarbons and solid wastes. Air-borne contamination occurs because of nuclear fall-out, factory smoke or fumes carried from one country to another.

Principle 21 of the Stockholm Declaration on Human Environment states that "States have, in accordance with the Charter of the United Nations and the Principles of International Law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction". This principle reflects the age old doctrine of "good neighbourliness". In order to deal with the situation arising out of trans-frontier pollution, it will be necessary to elaborate this concept and impart a meaning which may go well beyond the general principles of international and customary law.

The Council of the Organisation for Economic Co-operation and Development has done valuable work on developing

principles on trans-frontier pollution. The basic approach followed is that, since trans-frontier pollution occurs between sovereign States, the institutions and legal means to combat such pollution should generally be different from those available for national pollution. The United Nations Environment Programme is another international forum which is concerned with the development of legal principles on trans-frontier pollution. An inter-governmental working group of experts established by UNEP is at present engaged in drafting principles of conduct for the guidance of States in the conservation and harmonious exploitation of natural resources shared by two or more States.

7. *Would you consider international drainage basin concept appropriate as a basis for evaluation of the legal aspects of the pollution of international watercourses?*

NOTE: Over the last few years considerable progress has been made in developing administrative and legislative aspects of utilization and protection of international watercourses. The concern over marine pollution and the fact that the bulk of such pollution is caused by river discharge has evoked considerable thinking on this problem. A concerted approach requires broader consideration of the relationship of the activities of a country on a river in relation to the world oceans as a whole. The framing of new rules governing international co-operation in river pollution management should therefore include the entire international watercourses from source to mouth, and all waters connected therewith.

It may be of relevance to point out that the Committee in its work concerning "the law of international rivers", has followed the concept of "international drainage basin" as a basis for discussion. Also, the International Law Association, at its Helsinki Conference of 1966, prepared a set of draft articles on the uses of international rivers,

which is based on the concept of "international drainage basin". Article 2 defines the term as:

"An international drainage basin is a geographical area extending over two or more States determined by the watershed limits of the system of waters including surface and underground waters, flowing into a common terminus".

8. *What are the views of your Government on the existing and proposed legal system to prevent and control marine pollution?*

NOTE: During the last two decades, several United Nations agencies and inter-governmental organizations have sponsored studies and programmes to control and prevent pollution of the marine environment. The first United Nations Conference on the Law of the Sea adopted four Conventions which, however, failed to pay adequate attention to the specific problem of marine pollution. This lacuna, nevertheless, was well recognised when the United Nations convened its third Conference on the Law of the Sea. The prevention and control of marine environment forms an important agenda of this Conference.

The main issues for deliberations include :

- (i) Sources of pollution;
- (ii) Duties of States to prevent, contain, control and combat sources of pollution, due regard being given to the right of States to exploit their resources and pursue their industrial activity;
- (iii) Prescription of standards at national, regional and international levels; adoption of legislation, rules and regulations in the matter;
- (iv) Enforcement measures and jurisdiction;
- (v) Monitoring and environmental assessment;

- (vi) Principles of liability;
 - (vii) Global and regional co-operation;
 - (viii) Technical assistance to developing countries to combat pollution.
9. *What should be the appropriate scope of the 'environmental damage' in order to determine liability for pollution damage of any kind?*

NOTE: At the outset, it must be stated that it is extremely difficult to adopt a clear and precise formula which would hold a State responsible for environmental damage. The International Law Commission in its programme of work on State responsibility, has taken into consideration so far only the responsibility of States for unlawful activities. However, there are many instances where States may or should be held responsible for activities arising out of lawful activities as well. A good deal of progress has been made in evolving legal principles concerning liability of States in the fields of outer space, nuclear energy and civil aviation. But, in view of the vastness and unique nature of the environmental problems, it is essential to consider the problem of liability from a new angle. The traditional "fault theory" has to be either replaced or supplemented by introducing the new concepts such as "strict liability" or "risk liability". The element of "injury" would have to be examined in the context of present and the foreseeable environmental damage. Consideration might have to be given to the possibility of establishment of "compensation fund" for ensuring the prompt payment to the victims of environmental pollution.

A call for this new approach is also made in the Stockholm Declaration of 1972. Principle 22 of the Declaration urges States to co-operate to develop further the international law regarding liability for compensation for the victims of pollution and other environmental damage caused by

activities within their jurisdiction or areas beyond their jurisdiction. In a study prepared by the United Nations Environment Programme it was pointed out that "the primary obligation of States is to co-operate with other States in order to avoid inflicting significant harm to their environments in the first place, rather than to pay compensation when actual damage is incurred. In the field of the environment the emphasis must necessarily be on preventive rather than on remedial measures. The compensation which may be payable is often poor consolation for an inflicted damage that is often irreparable. Therefore, the main function of the duty to pay compensation must be viewed as a means of inducing State conduct that is likely to prevent the infliction of significant damage on other States, rather than as a licence to pollute or otherwise damage the environment of other States. When liability arises, it would more often be an indication that the principle of co-operation has not been adequately observed".

10. *On the question of economic cost of anti-pollution measures, what are the views of your Government on the "Polluter Pays Principle" accepted by several industrialized countries? Do you have any alternative criteria as regards the sharing of expenditure in anti-pollution measures?*

NOTE: The problem of assessment of the costs and benefits of anti-pollution measures deserves special attention of the developing countries. Industrially developed countries like Australia, Canada, United Kingdom, Federal Republic of Germany and Japan have accepted the "Polluter Pays Principle". The Declaration of the European Communities adopted on November 7, 1974 also endorsed the application of this principle.

"Polluter Pays Principle", in simple words, means that polluter has to bear all the costs incurred in undertaking any abatement activities to control the pollution. This, however, raises certain controversial questions. For instance, who is the polluter - "originator or the consumer", how to