

# Environmental Legislation

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## I. INTRODUCTION

Since the second half of the twentieth century, the environment has become a focus issue at the global level. This was largely an attempt to control the unabated environmental degradation resulting from disorganized contemporary economic and social development, which produced ecological imbalance. This interest in the environment has typically featured in successive international conferences convened to deliberate on environmental issues. The first global conference on Human Environment, which was held in Stockholm in 1972, was followed by the creation of the United Nations Environment Programme (UNEP). Many gatherings have taken place since then, culminating in the United Nations Conference on Environment and Development, which convened in Rio De Janeiro in 1992, which became known as the Earth Summit. This landmark event saw the introduction of several international environment-based conventions, including the adoption of Agenda 21.

Despite this apparent world interest in environmental issues, most of these issues still remain effectively unresolved. Consequently, the international community held a Third World Conference on Environment and Development in Johannesburg, South Africa, ten years after the Rio Conference. The international community felt that it was on the threshold of a drastic fate-determining crisis if the global environmental situation was not addressed as promptly as necessary. A necessary provision was that the redress must be conclusive to involve sustainable development, reconstruction, poverty reduction, pollution-combating, conservation of natural environmental resources and ecological balance.

The world realized that scientific and technological expediciencies alone would provide the necessary protection neither for the environment nor its resources, unless binding controls were applied to ensure the application of protection. Controls should also exist to obligate individuals and groups to steer clear of environmentally harmful practices and show commitment to protect environmental safety and resources.

For legislation to become functional, it has to be sufficiently flexible and dynamic to prove congruent with rapid development and keep



pace with new and advanced scientific and technological innovations. These systems will otherwise remain ineffective and sluggish, creating a recipe for failure to accomplish environment protection and development goals. In addition, for legislation to be observed in a given society, its requirements must be in conformity with the needs and unique character of the society in question. That is, the legal text must be seen as the product of research, testing and experience to cope with the social, economic and environmental circumstances of the society. In short, it must be relevant.

In light of these considerations, and as the international community has been perfectly aware of the importance of introducing legislative systems as an essential component of environmental protection, it took the lead to envisage international legislative tools (conventions, treaties, protocols) aimed at mobilizing international efforts to address environment issues of general nature. Arab countries, like others, participated in negotiations of such international instruments, and later undertook the requisite efforts towards acceding to, signing and ratifying procedures for the majority of them. The next step was the national implementation of legislation conforming and enacting these international agreements.

The Arab countries enacted and produced in time a set of legal texts partially addressing environmental issues within the framework of public laws. These public laws had been issued at an earlier stage without a central focus on environmental issues. As a reflection of this world interest, they also promulgated a battery of laws on environment protection; in this chapter, we will deal with these in their different international and national manifestations.

After going through an overview of major international pieces of legislation, as well as national Arab pieces of environmental legislation, this chapter will offer a critical analysis of the deficiencies of environmental legislation in the Arab region, and will propose means of improving on this situation.

## II. INTERNATIONAL ENVIRONMENTAL LEGISLATIVE INSTRUMENTS

The international community expressed its interest in the environment and the preservation of environmental resources through the conclusion of a gamut of international conventions and treaties covering principal environment issues with a view to protecting human health, maintaining and developing environmental resources and mobilizing international efforts to help achieve these goals. These international and regional conventions, treaties and protocols exceeded 150 in number, the enumeration of which goes beyond the scope of this chapter. We will exclusively deal with the most crucial environmental issues, such as the transboundary movement of hazardous substances and waste, climate change, ozone layer protection, desertification and bio-diversity conservation.

In what follows, we provide a brief overview of a number of important international conventions in certain key fields. Most of the conventions are discussed in more detail in the relevant chapters of this report.

### **Transboundary Movement of Hazardous Substances and Wastes**

- The Basel Convention was adopted in Basel in 1989, with the purpose of the Control of Transboundary Movements of Hazardous Wastes, scaling down the volume and poisonous effects of generated waste and exercising effective control on transport processes across borders, especially to developing countries, while at the same time minimizing these processes. The Convention entered into force in 1992. An amendment was introduced but never entered into force to the effect of prohibiting all hazardous waste export processes for eventual disposal in developing countries. The Basel Convention was amended on 22 September 1995 and re-amended in on 10 December 1999.

- The Rotterdam Convention was adopted on 10 September 1998 with interest centred on bio-safety especially in the field of international trade and development. Prior approval procedures relating to some hazardous chemical substances and pesticides in international commerce (PIC) were endorsed in December 1998. This Convention was designed to ensure the protection of human health by encouraging co-responsibility and cooperative efforts by member parties regarding trafficking in specific hazardous chemical substances while contributing to the environmentally sound use of some of these substances through the facilitation of related information exchange and streamlining of decision-making in terms of their import or export at the national level.
- The Stockholm Convention on Persistent Organic Pollutants was adopted in Stockholm on 22 May 2001 and entered into force on 17 May 2004. It aimed to provide protection of human health and environment against persistent organic pollutants, take measures to prevent their injurious effects in all stages of their lifecycle, underlie the principle of defrayal of pollution cost by the party responsible for causing it, and highlighting the importance of developing and utilizing alternative environmentally sound chemical processes and materials.

### **Ozone Protection**

- The Vienna Convention on the Protection of the Ozone Layer was adopted in Vienna on 22 March 1985 as a framework of international cooperation to salvage the ozone layer. It emphasized the necessity of taking effective steps towards preventing emission of ozone-depleting substances, reducing and defining human activities involving relevant adverse effects and necessarily extending technical assistance to developing countries to enable them to use alternative materials and technologies, with the ultimate aim of protecting human health and the environment against negative implications of ozone-related changes.
- The Montreal Protocol on Substances that Deplete the Ozone Layer was adopted in Montreal on 16 September 1987 and entered into force on 1 January 1989. The Protocol was tailored to spur the world's commitment

towards taking preventive measures to curtail the aggregate volume of emissions of ozone-depleting substances, with the eventual objective of their elimination.

Several amendments were made to the Montreal Protocol:

- The first was the London Amendment of 1990, targeting the promotion and expansion of control procedures set forth in the Montreal Protocol to include new materials and establish respective financial mechanisms.
- There was also the Copenhagen Amendment of 1992, with the aim of endorsing changes and reductions in the production and consumption of matter subject to control as provided for in the Montreal Protocol appendices.
- This was followed by the Montreal Amendment (1997), whereby each party was committed to establish and operate a licensing system with regard to the import and export of materials cited in the Protocol's appendices, by 1 January 2000. Further, it obligated each party to take legislative and administrative measures including labelling of products, equipment, components and technologies. Parties were also to assist in preventing illegal trade in banned and illicit materials, equipment, and machines through control and licensing applications based on double checking of data by exporting and importing countries.
- The fourth amendment of the Protocol was the Beijing Amendment, on 30 December 1999.

### **Climate Change**

- The UN Framework Convention on Climate Change (UNFCCC) was adopted in New York on 9 May 1992. It was devised to ensure keeping heat-retaining gas concentrations in the troposphere at acceptable levels, thus hoping to limit climate change and allow adaptation. The Convention calls for national and regional programs providing for measures to mitigate climate change impacts. It also calls on Parties to collaborate to develop, apply and disseminate technologies likely to reduce or prevent human-caused emissions.

- The Kyoto Protocol was adopted in Kyoto (Japan) on 11 December 1997 and entered into force on 16 February 2004. Its aim was the fulfilment of the final goal of the UNFCCC. Annexed to this Protocol were two supplements, one about heat-retaining gases as well as sectors, sources and sink categories; the second pertinent to the commitments of 39 countries to reduce emissions in their territories. These were developed countries and others with in-transition economies. Those countries had undertaken to work on curbing global warming gases by around 55% during the period from 2008-2012, compared to their recorded gas emissions in 1990.

### **UN Convention on Combating Desertification in Countries Suffering Severe Drought or Desertification Especially in Africa**

- This Convention was adopted in Paris on 17 June 1994 and entered into force on 10 October 1997. It was drafted with the goal of combating desertification and managing drought impacts in worst-hit countries especially in Africa, through taking effective measures at all levels and to promote international cooperation within the framework of an integrated approach attuned with the agenda 21, with a view to achieving sustainable development in affected regions.

### **Biodiversity Conventions**

- The Convention on Wetlands of International Importance Especially as Waterfowl Habitat, concluded in Ramsar, Iran, was aimed at (i) halting trespasses and invasions on wetlands; (ii) the acknowledgment of basic bio-environmental functions of wetlands and their economic, cultural, scientific and promotional value; and (iii) ensuring maintenance of wetlands including plants and animals by way of combining national policy and harmonized international action.
- The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), was adopted in Washington on 3 March 1973 and entered into force on 1 July 1975 with amendments introduced in Bonn

on 22 June 1979 and on 30 April 1982. It was chiefly designed to provide protection to certain animal and plant species threatened with extinction due to excessive exploitation through international trade by enforcing an import-export licensing system and taking appropriate measures.

- The Convention on Biological Diversity, which was adopted in Rio De Janeiro on 6 May 1992 and entered into force on 29 December 1993, had the aim of preserving and maintaining bio-diversity and employing its elements in a sustainable way. Other objectives of the Convention are the fair sharing of benefits accrued from the use of genetic resources among countries of origin and state beneficiaries and the transfer of appropriate technologies through providing adequate financing, alongside observance of all rights of accessing substances and technologies.
- The Cartagena Protocol on Biosafety (CPB), which was adopted in Montreal on 29 January 2000, was intended to guarantee protection in the domain of transporting and using banned organisms developed by bio-technology.

The above conventions and protocols address the most critical environmental issues at the world level, each comprising commitments undertaken by states in the bid to advance enforcement of their provisions. Included as part of these commitments were the goals of fulfilling legislative and administrative procedures to meet implementation requirements and translate their provisions into national legislative instruments.

It is noteworthy to indicate that such environment-based international conventions and instruments – once acceded to, signed and ratified by states and published as legally-established conditions in conformity with the constitutions of most Arab countries – attain the force of national law. An example of this is Article 151 of the Constitution of the Arab Republic of Egypt, citing that treaties concluded by the President of the Republic and referred to the People's Assembly, shall, upon their conclusion, ratification and publication, have the force of law.

### III. ARAB ENVIRONMENTAL LAWS AND INSTITUTIONS

Against the backdrop of a heightened world interest in the environment, world conferences on related issues, and international and regional conventions, treaties and protocols concluded to redress these issues, it was imperative that state parties have parallel interests in these international instruments on the environment. This parallel interest could be achieved by undertaking the legislative and administrative procedures for the translation of the provisions of these instruments into national legal systems.

The Arab countries were not detached from this process, and undertook necessary administrative and legislative procedures and placed environmental concerns on their agendas. This was reflected in the establishment of cabinet portfolios for the environment and instituting relevant administrative authorities and competent councils. These eventually issued a set of legal instruments partially addressing environmental issues within the framework of public laws passed at an earlier. With this growing interest in the environment issue and the importance of preserving it, developing its resources and honouring international commitments resulting from accession to international environment conventions and agreements, the Arab countries also promulgated a series of laws on environmental protection and resource management.

Thus we have two types of legislation concerning the environment:

- Legislation involving environmental issues and concerns, including several laws with provisions addressing matters of environmental dimension without explicitly stating that environmental protection is the underlying purpose for their promulgation.
- Laws enacted specifically for the protection of the environment.

#### **Legislation addressing environmental concerns**

These laws contain provisions addressing environment-related matters without the environment being the main purpose for their issuance.

A case in point is the Traffic Law which, in fact, governs issuing licenses for vehicles and other means of transport, driving, security and other conditions related to traffic regulation. However, it includes provisions preventing the operation of vehicles emitting smoke, spilling fuel or producing noise, as well as provisions regulating the use of horns and sirens. In addition to provisions governing buildings and public shops, types, license procedures, and duly observed architectural and sanitary requirements, there are other provisions relating to ventilation and height to preserve urban and health environment for residents and surrounding habitats.

In what follows, a number of examples will be given from three Arab countries.

### **Egypt**

Since the first half of the twentieth century, Egyptian legislators have come to realize the importance of preserving the environment and maintaining its resources. Environmental dimensions were included in penal codes. The Egyptian Penal Code issued in 1883 stipulated in Article 23 a punishment of a 3 months to 3 years prison sentence for whoever kills or poisons animals or livestock or fish in rivers, canals, small streams or swamps. Moreover, Law no 58/1937 contains provisions that entail punishment for whoever proves careless about cleaning or repairing fire-using chimneys, furnaces and laboratories. It also stipulated punishing whoever is responsible for noise that discomforts people at night or who places on the roof or walls of his residence compound substances, whether residues or farm yard manure or others which prove harmful to sanitation.

A number of laws have also been issued on cleanliness, the latest of which was Law no 38 of 1967 regulating garbage collection, hazardous waste transfer, treatment and disposal. Other laws include Law no 93/1962 on liquid waste drainage; Law no 45/1949 regulating the use of microphones; Law no 59/1960 regulating ionized radiation performances; Law no 52/1981 on preventive measures against smoking risks; Law no 57/ 1978 on pond and swamp filling and digging prevention; Law no 116/1983 on the inviolability of agricultural land and preservation of its fertility, forbidding soil scraping of cultivable

land or directing it for non-agricultural uses and banning deliberate erosion of arable land or building thereon.

### **Bahrain**

A number of environmental laws have been promulgated in Bahrain, some of which are:

- Law no 3/1975 on Sanitation;
- Law no 112/1967 modified by Law no 12/1980 on Regulation of Underground Water Uses;
- Law no 13/1977 modified by Decreed Law no. 15/1993 on Building Regulation ;
- Law no 5/1981 on Fishing Regulation;
- Law no 20/1983 on Palm Protection;
- Law no 11/1989 on Pesticides ;
- Law no 11/1991 on Regulation of Sanitary Wastewater and Surface Water Drainage;
- Law no 2/1995 on Protection of wildlife.

### **Algeria**

Several laws of environmental purport were enacted, including:

- Order no. 75-4, 76-4 in September 1975 relating to laws applicable to security against fire risks and the establishment of committees on safeguards and civil protection;
- Law no. 82-10 / 1982 on Fishing;
- Law no. 83- 16-17 July 1983 on Water;
- Law no. 84 -12/1984 on Forestry Order;
- Law no. 88- 8-1988 on Veterinary Medicine Activities and Protection of Animal Health;
- Law no 1-19 /12/2001 on Waste Movement, Control and Disposal;
- Law no. 2- 2 – 5/2/2007 on Coast Protection and Development.

### **Arab Legislation on Environment Protection**

In addition, a number of laws promulgated in the Arab region concerned specifically with the environment. These laws contained provisions stipulating a full-fledged legal system of environment protection. Concurrently, different Arab countries were prompt in setting up cabinet portfolios for environmental affairs, in addition to their realm of activities including issues like water, electricity, agriculture and



health. A case in point was the experience of some Arab countries assigning the environmental responsibility to ministries of water, electricity, agriculture and health. Not only portfolios were established but also other bodies, councils and institutional entities concerned with the environment either pursuant to independent decisions or by providing for their establishment within the context of environment protection codes.

As part of this legislative interest in environment affairs in the Arab world, a broad-based spectrum of laws was enacted, including:

- Law no. 4/1994 on Environment Protection in Egypt;
- Law no. 26/1995 on Environment Protection in Yemen;
- Law no. 3/1997 on Environment Protection in Iraq;
- Law no. 24/1999 on Environment Protection and Development in the United Arab Emirates;
- Law no. 21/1995 modified by Law no. 16/1996 on Environment Protection in Kuwait;
- Law no. 21/1996 on Environment Protection in Bahrain;
- Law no. 114/2001 on Environment Protection in Oman;
- Republican Decree no.34 on 28/7/1422 Hij on the Environment System in Saudi Arabia;
- Law no. 30/ 2002 on Environment Management in Qatar;
- Law no 50/ 2002 on Environment Protection in Syria;
- Law no. 444/2002 on 29/7/2002 on Environment Protection in Lebanon;
- Law no. 15/2003 on Environment Protection and Improvement in Libya;
- Law no. 52/2006 on Environment Protection in Jordan;
- Law no. 11-3 relating to Environment Protection and Reclamation issued by Royal Decree no. 50-3-1 on 15 Rabei Awal 1424 Hij corresponding to 12 May 2003 in Morocco;
- Law no. 3/10 on Environment Protection Within the Framework of Sustainable Development in Algeria;
- Law no. 7/1999 on Environment Protection in Palestine;
- Law no. 91/1988 on Establishment of a

National Agency for Environment Protection in Tunisia, modified by two Laws no. 115/1992 and 14/2001 and further laws pertinent to different components of the environment.

In addition to passing legislation on environment protection in general, Arab countries were well-disposed to enact other environment-driven laws relevant to different environment issues, mainly laws on natural reservations. In Egypt, Law no 102/1983 on natural reserves was issued; Qatar passed Law no 19/2004 on natural life and its characteristics; in Bahrain Law no 2/1995 on wildlife protection was promulgated as well as decreed Law no. 12/2000 on the Establishment of the National Agency for Natural Life Protection; Oman passed Law no 6/2003 on Natural Reservations and Maintenance of Natural Life; while in Jordan Law no 29/2005 on Natural Reservations and National Recreational Places was issued. Legislation also exists in a number of Arab countries on the protection of water resources and the protection of coastal regions.

Though each of the above laws has its own specificity, Arab laws mostly share common grounds. The most relevant of these features are set out below.

#### **IV. MAJOR FEATURES OF ARAB LAWS ON ENVIRONMENT**

The following are general features of Arab countries' national environmental legislation.

(i) Arab environment laws, in their preambles, lay out definitions of environment-related phrases, terminologies and concepts. They do so by designating a chapter to explain what these phrases, terminologies and concepts imply with the aim of unifying the meaning of each term according to universally-acknowledged connotations, and in conjunction with international environment conventions.

(ii) Arab environment laws, in large part, tend to devote a preliminary chapter to general principles underlying legislation relevant to the environment. The primary assertion is the right of humans to live in a healthy, clean and balanced

environment. This chapter also provides for the responsibility of the official state authorities, public and private institutions and individuals for keeping the environment safe, safeguarding its natural resources, fighting pollution and protecting land and marine life. This chapter also includes a definition of objectives that the relevant legislation attempts to achieve and a statement of fundamentals whereby competent authorities are assigned to carry out tasks entrusted to them in this respect.

Among these, the following goals can be singled out: protection of the national environment against the negative impact of activities conducted beyond the borders and waters of the national region, and implementation of commitments vis-à-vis global environment protection such as biodiversity, ozone protection, climate change, combating desertification, and others. Furthermore, obligations are placed on state authorities, especially those charged with developing plans of economic development, to take into account environment considerations in all stages of economic development and at all levels of planning. This is to ensure that development planning embraces environmental concerns as part of overall planning, be it industrial, agricultural, urban, or tourist. This principle can best be illustrated in Articles 3 and 4 of Law no 26/1995 on Environment Protection in Yemen.

(iii) Arab legislation on environment is an integrated legislative system ensuring environment protection through integrated regulations providing for the establishment of public organizations, councils or institutions for environment protection. These are affiliated to cabinets or environment ministries, with tasks delegated to them in a manner securing the development of environmental policies and plans, and setting of pollutant standards and rates while monitoring and following up compliance. Accordingly, this legislation attempts to streamline these bodies' interaction with planning and sectoral institutions, centrally and regionally, by way of opening regional field offices in governorates (or provinces) and coordinating with other relevant entities. The formation of such organizations, councils or institutions in Arab countries differs, though they mostly depend on an administrative composition of ministries and executive authorities concerned to ensure synergy.

(iv) Concerning development-environment linkage, Arab legislation is based on mandating assessment of the environmental impact of projects that need to be licensed as a precondition for their approval. It conditionally underlines that this assessment covers all negative implications likely to ensue in connection with the project concerned and how to get rid of or reduce them to environmentally permissible bounds. Some of these laws may also refer to the positive effects of the given project, such as evaluating the environmental impact of the built-in monitoring system of the facility, as well as methods and dates of sample-taking to oversee compliance of existing establishments with regard to the implementation of projects and in accordance with legally established standards and norms. These laws further mandate that a copy of this evaluation be sent either to the relevant Agency or Council.

Arab legislation on the environment obligates facilities subject to such an environmental impact assessment procedure to register their emissions and whether or not they comply with permissible standards and rates, and to report any deviations or breaches in this respect. It allows environment protection agencies to inspect these facilities to ensure conformity with data recorded in the register and take legal action against violating facilities.

(v) Most of the Arab laws on environment include provisions ensuring protection of water sources – be they wells, rivers, or surface water – against pollution and regulating the usage of these waters in a manner that guarantees their preservation and protection against contamination or depletion. These laws are also concerned with protecting soil from desertification or pollution, bearing in mind the protection of plantations, forests, trees and pastures and guarding against arable land erosion or turning it into waste land.

Arab legislation, in its entirety, focuses on protecting natural life and bio-diversity as well as living organisms threatened with extinction, migrant birds within the framework of obligations of international environment-related conventions on bio-diversity and to Cartage Protocol on biosafety. The Libyan Environment Law offers a useful example by virtue of its regulations in relation to the latter.

## **PUBLIC PARTICIPATION IN EGYPTIAN ENVIRONMENTAL LEGISLATION**

Egyptian environmental legislation no 4/1994 adopted the principle of popular participation in designing environmental plans and policies and decision-making with regard to environment issues by providing a three-member representation in the Egyptian Environmental Affairs Agency's (EEAA) Board of Directors of non-governmental organizations interested in the environment, in addition to three other members representing the business sector and two representing the scientific centres and institutes concerned with environment affairs and two environment experts who not necessarily civil servants. This composition of the board ensures that half the board members are non-state employees, guaranteeing the concept of public participation in the management of environment affairs and decision-making. Individuals and civil societies may report crimes committed in breach of environmental laws and also have the right of recourse to administrative and judicial authorities to have these provisions complied with. This is in tandem with the stipulation set out in the Egyptian Constitution stating that environment preservation and protection is a shared responsibility of state authorities and individuals.

(vi) Environment-based laws, in separate chapters, tackle air pollution, thereby obligating facilities to ensure that established air pollution standards and rates are not exceeded and that closed public places are well ventilated and protected against noise, smoking, unpleasant odours and exhausts. These laws regulate pesticide spraying and circulation and the use of hazardous chemical substances, as well as the circulation of hazardous waste and the transfer and disposal of solid waste.

It should be noted that in this field most, if not all, of the Arab laws are perceptive to pollution scales on the basis of concentrations rather than environmental pollutant loads, notwithstanding the significance of these specific loads in curbing and reducing pollution being associated with the quantity, volume and weight of pollutants.

(vii) Relevant Arab laws also focus on the protection of marine environments against pollution caused by maritime sources such as vessels, oil platforms, and other maritime facilities as well as land-based sources erected along or nearby coasts which discharge their effluents into the marine environment. Protection in this area has been extended to cover regional waters and special exclusive economic zones. These laws further

specify timely pollution-eliminating procedures, name authorities concerned with maritime environment protection and regulate the integrated management of coastal regions in response to requirements cited in international environment conventions on seas protection.

(viii) Arab legislation on environment on the whole tends to disregard the use of economic tools as an expedient to ensure environmental compliance, with only a few laws making reference to the utilization of financial incentives. It is worth mentioning that Tunisian laws on the environment are responsible for making Tunisia the first Arab country to accord the environmental label on its products to indicate highest-level quality in terms of environment preservation, bringing to light well-perceived efforts towards the employment of clean technology which involve, when necessary, optimal sustainability prospects. It should also be noted in this respect that the environment public order in Saudi Arabia mandated compliance with environment protection systems and measurements as a prerequisite for project-loaning.

#### **V. COMPLIANCE WITH AND ABIDANCE BY ARAB ENVIRONMENT LAWS**

Factors affecting environmental compliance vary substantially from one country to another, and even from one part of a country to another. These differences are the result of economic conditions of target facilities in terms of environmental control or the prevailing individual behavioural traditions in the society and how far the importance of environment protection and pollution reduction is assimilated.

In a study taking stock of the adequacy of legislation on the environment and the promotion of its implementation mechanisms in the ESCWA region in 1999, it was shown that the industrial sector in Egypt, Syria and Jordan had experienced radical transformations coupled with relative improvement of the environmental conditions of industrial facilities. Despite the fact that major industrial zones had undergone positive developments in this concern, the majority of these zones still sustain degrading environmental conditions because of insufficient handling of hazardous

waste treatment, deficient attempts of curbing polluting gas emissions and due to discharging industrial effluents into public networks and central treatment stations sourced by some facilities that are not subject to control or which fail to comply, given their dire economic conditions.

However, the study underlined that industrial management in these countries is positively directed towards environmental compliance, including adoption of the environmental aspects of industrial management, with the view of modernizing means of production as a precautionary measure, and to scale down pollution at source instead of focusing exclusively on end-of-tube approach. Some of these industries are well-disposed to voluntary compliance and to the establishment of pollution-reducing or production-promoting units to curtail the loss.

#### **VI. IMPEDIMENTS TO THE ENFORCEMENT OF ENVIRONMENT LEGISLATION**

A World Bank study in 1996, conducted in collaboration with environment agencies in six major developing countries, namely Brazil, China, India, Indonesia, Mexico and the Philippines, revealed that environment-based policies in these countries had been centred on legislation as a means of environment protection. The study also revealed that experience in these countries showed the laws on environment as being ineffective and that manifold problems were barring the operation of environment agencies and offices concerned in these countries. According to the study, these problems could be summed up as follows:

- The difficulty of sorting out and recording data and information on emissions produced by plants;
- Bureaucracy involved in contacting any of the issuing authorities with regard to recording information about air or water quality maintained at environment field offices;
- Lack of efficiency and know-how at the level of environment offices and agencies with regard to information on optional program benefits, employment of results to envisage priorities of distributing rare substances and fewer well-trained inspectors in this field;

- Lack of political support for serious implementation of environment programs, which are often politically objected to and turned down and even resisted and abandoned. Under these circumstances, it is difficult to control pollution and accordingly to raise funds to cover pollution-fighting costs and burdens.

The situation in Arab countries today is not much different from that in the six countries subject of the World Bank study in 1996. Other problems are also faced in the process of implementing environmental legislation in most Arab countries, of which the following particularly deserve to be highlighted:

- Environmental standards provided for in relevant laws have been set in conformity with effective standards in developed industrialized countries. Accordingly, they are inconsistent with the environmental conditions as well as the technical and economic potential in Arab countries. This tends to render it difficult, from the economic perspective, to abide by these standards or make them functional.
- In their definitions of liquid waste and gas emission standards, laws in most Arab countries developed more interest in pollutant concentrations rather than in pollution loads and discharge quantities. This overburdens the environment system and adversely affects its pollution-absorbing capacity.
- In many cases, these laws set uniform standards that apply to both production and service activities, regardless of pollution-combating costs and techniques. Existing businesses are not different from their equivalents in new establishments in the sense that the latter may have their own standards or need to be subjected to stricter standards.
- Absence of qualified cadres and expertise to help enforce environment-related legislation and take on responsibilities entrusted pursuant to relevant laws to environment protection agencies and their affiliates in different governorates. These laws generally stipulate that such agencies be supported by environment specialists, experts, administrative personnel, and technical equipment to meet the pressing need of putting these laws into action. There is always the need for holding training courses for these cadres to upgrade their abilities and skills and provide advanced experience in technical and administrative domains. Related to this issue is the absence of laws governing the environmental business in most Arab countries in the same way as other technical professions such as the fields of medicine, engineering and law. This actually allowed non-specialists to run environmental affairs, for example by conducting environmental impact assessment, as well as environmental reviews and plans of projects which require special skills. Egypt sought to regulate this aspect in amendments made to Law no 4/1994 on Environment Protection.
- The multiplicity of authorities in charge of executing laws and lack of coordination contribute to hindering compliance. This demands working out some kind of a synergy among ministries, existing associations and institutions concerned while assigning competence in a manner that narrows issues of overlapping and conflict.
- Dwindling environment-driven awareness at the level of managers of industrial or service facilities and projects and those assigned to effect environment laws and their inadequate background knowledge of the provisions of these laws and the powers vested in them. The staff working in these facilities are often not well-informed in terms of the environment and exposure to health risks resulting from failure to comply with established environmental standards.
- Most Arab laws on environment do not encourage making operational clean technologies and techniques and pursuing the utilization of economic tools and incentives as effective means of achieving compliance with and abidance by environmental legislation.
- Apprehension regarding the social ramifications of implementing punitive provisions stated in environment laws, and concern over the interests of staff in major industrial facilities often prevent the imposition of penalties stipulated in environmental laws on these facilities. This applies especially with regard to shutting down the facility or suspending its polluting activity, for fear that its staff will be threatened with unemployment or their wages not paid.

## A BRIEF ON THE TYPICAL LEGISLATIVE MANUAL

The Secretariat of the Council of Arab Ministers Responsible for the Environment (CAMRE), the United Nations Environment Programme, Regional Office for West Asia (UNEP-ROWA) and the Islamic Education, Sciences and Culture Organization (ISESCO), jointly carried out a study on environment laws and codes in 17 Arab states to find out to what extent they are commensurate with multi-lateral international environment conventions and modern environment concepts. This study included a model legislative manual elaborated as an Arab environment roadmap, to be used as guidance for Arab countries in enacting environmental laws in accordance with their unique environmental systems, priorities and resources as well as their economic, financial and administrative capabilities and political and legislative circumstances. A preliminary part contains a number of chapters, with the first chapter designated to an updated environment-based classification with a view to unifying connotations and meanings of terminology, phrases and concepts according to those universally-acknowledged in multilateral international conventions on environment. This is to enable officials applying these laws to more easily abide by their provisions and those in charge of enforcing them to ensure compliance.

The second chapter of the preliminary part deals with general principles of legislation in the area of environment, notably asserting the human right to live in a clean and balanced healthy environment, and allowing for human dignity as well as health, physical, mental and intellectual growth. In addition, this is to be achieved in concert with the responsibility of official authorities, public and private institutions and individuals with regard to preserving the environment, safeguarding its natural resources, combating pollution and protecting land and marine life.

This chapter also makes reference to the goals of the legislation including setting the foundations on which competent authorities are to deliver relevant services.

The third chapter is devoted to the alignment of environment management according to the form of the State and its political, administrative and legislative system. This highlights the need for an environment affairs portfolio or the assignment of related responsi-

bilities to the ministry of health or population or agriculture or housing, as appropriate. It also provides for the establishment of an agency, council or organization for environment protection and relevant competency and constitutive regulations. Legislation on environment also regulates the scope of political partnership in environment management, environmental policy designing and decision-making through the engagement of civil society representatives in the board of directors of these agencies, councils or organizations. This chapter further provides outlines of environmental management of projects, facilities and institutions where relevant legislation mandates this kind of in-house environment management of facilities and institutions subject of environmental impact assessment. Part of the tasks authorized to these departments rests with overseeing the environmental self-control of given facilities or institutions, fulfilling environment compliance as per established standards, rates and specific loads, and dealing with environment inspection organs and recording environment register data of the said facility or institution.

The manual contains chapters addressing the following disciplines:

- Regulated business management in environment fields;
- Use of economic tools in drawing up environment policies and their implementation plans;
- Environment control;
- Environment assessment of facilities and projects;
- Protection of terrestrial ecosystem and natural life;
- Maintenance of bio-diversity and biosafety
- Natural reservations or protected areas;
- Protection of air environment against pollution;
- Protection of aquatic environment against pollution;
- Administrative and judicial procedures;
- Penalties;
- Role of civil society in environment institutions and law-making:
  - Role of civil societies in protecting the environment, its institutions and laws;
  - Role of universities and research centres in environment institutions and law-making;
  - Role of industry and businessmen in environment protection;
  - Role of municipal and local councils in environment protection.



- No specialized police ensuring environmental protection is available in most Arab countries to cooperate with environment protection agencies for the enforcement of environment laws and detection of violations in this regard.
- Media shortcomings on environment with regard to reaching out to public related issues, laws and citizens' rights, and raising awareness vis-à-vis health hazards resulting from and risks involved in environmental pollution due to non-compliance with adequate environmental requirements and provisions of environmental laws.
- Deficiency of capacities of most Arab non-governmental organizations operating in the field of environment protection.

## VII. HOW FAR ENVIRONMENTAL LAWS IN THE ARAB COUNTRIES ARE CONSISTENT

Looking into the major features of Arab environmental laws reveals common characteristics in most parts, with only few differences in assessing priorities with regard to environment conditions and resources. These laws also vary with regard to legislative redresses. While some countries have exclusively issued all-embracing legislation for environment protection, others enacted several

environment laws aimed to protect individual environment elements such as natural reserves, marine environment, hazardous waste and substances, forests, water, etc.

Laws also vary in terms of their compatibility with international environmental conventions, regarding both accession and ratification as well as response to their implementation requirements.

Within the context of a study conducted by the League of Arab States (Environment, Housing and Sustainable Development Department) in collaboration with the UN Environment Program, a typical legislative manual has been prepared. This has been designed as an Arab roadmap for environment protection for Arab countries to apply in charting a new pattern of environmental legislation or amending existing laws according to the indicators cited in this manual. This manual was adopted by representatives of Arab states as well as the Arab League's Joint Committee on Environment and Development. It was also adopted at the Meeting of the Council of Arab Ministers Responsible for the Environment (CAMRE) in November 2007, and will be distributed to all Arab states, with training courses organized for its initiation. It can thus be safely predicted that, guided by this manual, an accord unifying environment laws in the Arab world is more than likely to materialize.

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