ENVIRONMENTAL LAW IN THE ARGENTINE REPUBLIC

EDGARDO ROTMAN

I. ARGENTINE ENVIRONMENTAL PROBLEMS

The phenomenon of environmental deterioration presents specific features of greater or lesser severity in the different countries and regions. For the legal control of these problems, it is necessary to make a direct itemized inquiry into its concrete manifestations. [1]

The Argentine Republic is by no means free of the process of environmental involution. In spite of the considerable importance of its natural resources, and although it has not reached a very high degree of industrial development, it has already begun to feel the effect of the destruction of its environment.

The problem of air, water, and soil pollution are centered mainly around a fluvial axis along the borders of the La Plata and Paraná rivers, from the city of La Plata up to the city of Rosario. On this four-hundred-kilometer-long strip of land of varying with there is a great urban and industrial concentration, particularly in the Federal Capital and adjacent areas, with a population of about 9 million inhabitants, where the crowding of people, in numerous places, is aggravated by the absence of adequate ground organization (running water, sewage disposal, rain water drainage, etc.).

The most serious threat in this industrial fluvial axis, is water contamination caused by industrial wastes, agricultural and cattle raising establishments, sewage, rainwater drainage, solid refuse, and oil and by-product leakage.

Large areas are becoming unfit for water supplies and other social uses, such as recreation.

[1] Young Lawyer's Department of the American Bar Association, "Legal aspects of environmental control" in *Ecología y Contaminación* ("Managing the Environment, International Economic Cooperation for Pollution Control", Praeger Pub., 1971), Buenos Aires, 1974, p. 317 where the fact that problems related to air and water pollution must be treated on a regional basis is pointed out.

Air pollution has also become a serious danger for the health of the population. It is caused by imperfect motor combustion of vehicles, the number of which has greatly increased lately. It is also due to fixed sources of pollution, such as garbage incinerators in private buildings, incineration plants, petrochemical plants, and industries in general. Very high levels of carbon monoxide have been found in Argentina and, on the other hand, hydrocarbons produced by oil refineries at Ensenada cause the city of La Plata to figure among the ten urban conglomerates where the greatest number of lung cancer has been recorded in the world.

It is possible to declare that in the Argentine Republic, as well as in different Latin American countries, air, water, and soil pollution is due both to the process of development and to that of underdevelopment, because the latter prevents the possession of adequate anticontaminant technology.

Another of the urban environmental problems refers to the removal of solid waste. Part of the three-thousand tons collected daily in the city of Buenos Aires is processed in three obsolete furnaces (a modern plant will be installed by the end of the year); another part is used for sanitary earthwork, and the rest is left forming gigantic mounds of rubbish which constitute permanent urban sources of infection.

Erosion is another of the factors of ecologic disturbance which affects large areas of the country, due to faulty soil management, combined with periods of severe drought. In certain parts of the country, such as the western zone of the Province of Chaco and the Province of Formosa, this has caused the soil to become a desert region.

On the other hand, erosion caused by erroneous farming practice, improper forest development, and absence of corrective measures in general, sweeps millions of tons of sediment into the large rivers, while subsidence for lack of drainage, turns formerly useful fertile soil into sterile land (principally in the provinces of Chubut and Rio Negro), thereby rendering useless the hydraulic works which were carried out for farming purposes.

Lastly, among the many Argentine ecologic problems, emphasis should be made on the excessive use of herbicides, and the uncontrolled utilization of upper water-bearing strata in different areas of the country, which imperil water reserves or cause salification.

II. Argentine positive law in environmental matters

a) *Precedents*

The earliest Argentine records on this matter are to be found in the "Leyes de Indias" wherein principles for wise forestry were established.

Besides, it is a well-known fact that the Spanish kings showed interest in the phenomena of nature and in the study of the flora and fauna of the New World.[2]

Mention should also be made of the decision of the Supreme Court of Justice in 1887, concerning the validity of a law of the Province of Buenos Aires, which for reasons of public health ordered the closing of meat-preserving plants ("saladeros"). In its provisions, the law stated that "no one can have an acquired right to endanger public health", be it through the right of property, or through the exercise of a profession or an industry.[3]

Regarding forest protection, subsequently to the colonial communal legislation, certain interdictions were decreed, concerning the sale and exploitation of public woodlands. Most of the provisions relative to forest protection were contained in rural codes, the earliest being that of the Province of Buenos Aires, dated in 1865.[4]

Among other legislative records concerning environmental protection, Law 3445 may also be mentioned, insofar as it entrusts the General Administration of Ports with the maintenance, and cleaning of the same. Law 4195 (1903) provides for measures to avoid pollution of water of general public use. As far back as 1869, the Civil Code also contained provisions in its Article 2618, regarding noise caused by industrial plants.

b) *Institutional Organization*

The Argentine Republic has adopted a federal system of government. The provinces retain all power not delegated by the National Constitution on the Federal Government (Article 104 of the National Constitution), and they establish their own local institutions and are governed thereby. Each provincial state has authority to dictate its own constitution and to enact laws concerning all such matters as are not expressly delegated by the Central Government.

Inasmuch as environmental protection problems are of interjurisdictional character, the Argentine federal system offers difficulties for their legal regulation. This obstacle has been partly surmounted by means of interprovincial treaties and adherence to national laws.

[2] María Buchinger, "Legislación Especial e Integral sobre Protección de la Flora" in First Argentine Meetings on Environmental Law and Administration, Buenos Aires, 1974, p. 207.

[3] Supreme Court 1887 (Decisions 31:273) quoted by Juan Ramón de Estrada in *Aspectos Jurídicos de la Contaminación*, edited by the Comisión Nacional de Estudios Geoheliofísicos, Buenos Aires, 1973, p. 11.

[4] Amado Chacra, "Régimen Forestal" in Journal *El Derecho*, 19/7/71, p. 2.

The Argentine Administration of Government is organized on the basis of ministries composed of State Secretariats, Undersecretariats, General National Bureaus, National Services, Institutes, Councils, Commissions, Departments, and Divisions.

The Ministerial Law 20.524 (1973), empowers the Home, Foreign Affairs, Justice, Defense, Finance, Culture, Education, Labor, and Social Welfare Ministries to act in matters of environment, both general and specific.

In view of the wide range of functions and jurisdictions, and the scope of environmental protection, mention should be made of the following, which are incumbent for the Ministry of Finance: conservation and development of renewable natural resources (Article 15, clause 13) and implementation and control of the policy concerning water pollution by industrial wastes, in coordination with the Ministry of Social Welfare (Article 15, clause 40), besides many other activities in the field of agriculture and cattle raising, forestry and fishing, as well as conservation of fauna and flora, and operation of the national water system policy, etc.

The great innovation in the matter of institutional organization concerning the subject under reference, was introduced by National Decree 75/73, creating the State Secretariat of Natural Resources and Human Environment, dependent on the National Ministry of Economy, for the purpose of advising the latter in all matters certaining to the formulation, execution, and control of the policy and the full system of conservation and development of renewable natural resources, and conservation and improvement of human environment specified in twenty-seven items.

Present trends of thought prevailing in most countries have thus been followed, it being considered that pollution should be faced with a definite economic plan. On the other hand, the institutional policy has been brought up to date, in agreement with the interdisciplinary approach adopted since the 1972 Stockholm Conference.

The State Secretariat of National Resources and Human Environment has not yet been regulated as to its functional ranking relations and interdepartamental coordination, both of which are essential to ensure the coherence and implementation of the environmental protection policy and its administration.

Among the records of national, provincial, and municipal coordinated action, mention may be made of the agreement signed in 1971 by the Undersecretariat of Public Health of the Ministry of Social Welfare, the Undersecretariat of Water Resources of the Ministry of Public Services, the Municipality of the City of Buenos Aires, and the Ministry of Public Works of the Province of Buenos Aires, for the purpose of taking joint action against water pollution within the metropolitan area,

thereby obtaining coordination among national, provincial, and municipal entities exercising power and authority in connection with this serious problem.

c) *Environmental protection in the Penal Code*

The Argentine Penal Code contains several provisions covering partial aspects of environmental protection.

Any offense against nature in an attempt to destroy, render useless, cause to disappear, or in any other way damage things, movable or immovable, or an animal belonging to others, falls under the basic form of damage foressen by Article 183 of the Penal Code. It should also be pointe out that Article 184 foresees, among other aggravating circumstances, that the offense may produce infection or contagion in birds or other domestic fowl. It also foresees the use of poisonous or corrosive substances. In the case of simple forms of offense, the penalty specified is between fifteen days to one year of prison, while in the case of aggravated offense, the penalty is from three months to four years.

Aside from the field of offenses against property and under the heading of crimes committed against public security, we find cases that are crucial for environmental protection. They concern the creation of a common or indefinite danger for persons for whom the acts legally described represent a potential menace.

Thus, Article 200 of the Penal Code punishes with three to ten years of jail terms for he who poisons or adulterates dangerously such drinkable water or foodstuffs, or medical substances which are destined for public use or for the use of a community. When such an act is followed by the death of a person, the penalty is raised to from ten to twenty-five years of prison.

The 1968 reform (decree-law 17567) added the words: "quien contaminare" ("he who should contaminate") to the typical action described in the aforementioned case, taking into account "radiations produced by radioactive substances, release of nuclear energy from material already used, etc.", when considering the motives.

In May, 1973, this innovation was annulled by law 20509, as well as almost all of the criminal laws issued by the "de facto" governments which have succeeded one another since 1966. Article 4 of the repeal law, containing the provisions which remained in force, unfortunately made no reference to Article 200. In spite of this, we consider that the provision is still applicable to the more serious cases of contamination of water and

[5] Sebastián Soler, *Derecho Penal Argentino*, Buenos Aires, 1967, vol. IV, p. 507.

certain foods, inasmuch as the act of voluntarily throwing away toxic refuse known to be harmful to health, is comprised in the legally-described action "to poison".

In regard to this, the Argentine jurist, Sebastian Soler,[5] says that "to poison" is to render a substance toxic by adding something to it which makes the whole harmful to health. It is not necessary that conditions of such a nature having been created, they result in the death of a person or in someone suffering the effect of poison. It would suffice that its toxicity might, for example, harm children.

Unlike poisoning aggravating the crime of homicide, wherein the existence or nonexistence of poisoning depends more on the insidious modus operandi than on the poison itself, in this type of crime the objective criteria intended to determine the harmfulness of the substance are of greater relevance. In the same way as in the case of aggravated homicide, the chemical agent in question may be a chemical substans which may be toxic per se, or harmful on account of its physical state of aggregation, i. e., ground glass. The crucial point is that the quantity of the poisonous substance used may prove dangerous for the life or the health of a group of persons. This quantitative criterion is related to the legal value protected, namely, public health as a specific form of public security.

The objects upon which the action of poisoning falls include drinkable water; that is to say, water intended to be consumed, foodstuffs, and medical substances. Thus, incrimination would comprise willful pollution of rivers and soil, when it affects vegetable or animal products intended for consumption.

It is well understood that, unlike homice by poisoning in which the subjective manner of committing it presupposes direct willfulness, here we are predominantly within the scope of dolus eventualis, since the offender, of course, does not directly pursue the creation of a common hazard for the health of all his fellow citizens, but consents to the risk that such a situation may eventually occur, urged by his interest in carrying out his profitable activity.

Article 203 considers the possibility of the actions foreseen in the article under reference, being committed through criminal negligence. It thus punishes them with heavy fines or with from six months to two years' imprisonment, should the outcome be sickness or death, when the action was committed through imprudence or negligence, professional lack of skill, or disregard for rules or statutes. It is worthwhile mentioning Article 206, which provides that "whoever violates the rules established by the sanitary laws for animals is liable to between one and six months' imprisonment".

It must be taken into account that, according to Article 67, clause 11

of the National Constitution, the enactment of legal provisions creating offenses, pertains to Congress. There are, however, many legal provisions establishing sanctions against contraventions and administrative infringements intended for environmental protection within the provincial and municipal sphere.

d) *Environmental protection in the Civil Code*

The Civil Code contains numerous provisions relating, directly or indirectly, to environmental protection.

Thus, Article 2336 forbids the division of real estate, when its use and exploitation thereby becomes uneconomical, and it is up to local authorities to determine the minimum surface of economic units (reform introduced by Law 17711-1968).

Article 2340 states the different public property rights of the general State and of the individual States (seas, rivers, subterranean waters, beaches, lakes, islands, etc.). According to Article 2341 of the same Code, private individuals have the use and enjoyment of the public property of the State or of the States, but are subject to the provisions of this Code and to the general or local ordinances. This State regulatory authority in the use of public property, is one of the main aspects of legal environmental defense against the noxious activities of some private individuals.

In the case of assets which may be owned privately, Article 2513 rules that "the right to possess the thing; to dispose of or to benefit therefrom; to use and enjoy it, according to a regular exercise, is inherent in ownership". The following article further adds that the exercise of these powers cannot be restricted as long as it is not abusive, even if it deprives third parties of advantages or comforts. The duty of regular exercise of the right of property and the prohibition of abuse are not only related to the social function of property, but also to what is now rightly named its "ecological function". Concerning environmental protection, the restriction and limitation of private property ruled by Heading 6 of the Civil Code are, thus, very important Article 2611 prescribes that the restrictions imposed upon private ownership solely in the public interest, are governed by the administrative law, and Article 2618 (reformed in 1968), of great importance in the solving of legal conflicts arising through environmental protection, rules that

> the discomforts caused by smoke, heat, odors, light intensity, noise, vibrations, or any similar nuisances, brought about through the exercise of activities in neighboring buildings, must not exceed normal tolerance, taking into account the conditions of the place, even if they are authorized

by the Administration. According to the circumstances of the case, the judges may grant indemnity for damage, or they may order the cessation of such discomforts. Upon enforcing this provision, the judge must keep in mind the requirements of industrial production, and the respect due to regular use of property. The judge will also take into account priority in the use thereof. The lawsuit shall be carried out summarily.

e) *Protection against noise in the Aviation Code*

Article 155 of the Air Law Code states among damages caused to third parties on land, those occurring as a consequence of abnormal noise made by lanes in flight. However, the victim will not be entitled to any legal redress if the damage cannot be directly attributed to the nuisance in question. According to Article 156, a plane is considered to be in flight from the moment motor power is applied for take-off, until the landing run is completed.

This provision tends to prevent the different kinds of damage inflicted upon persons (such as heart or nervous diseases, etc.) and upon things (cracks in walls, loosening of tiles or cornices, etc.) resulting from vibration originated by the supersonic boom.[6] This norm must be complemented with regulatory provisions establishing degrees of admitted sound intensity and of minimum altitude.[7]

f) *Law 20284 (1973) concerning preservation of air resources*

Although there already existed certain norms concerning protection of the quality of air (Decree 46, 1970, Laws 2797, 4195, etc.), Law 20584 represents an important instrument to prevent air pollution produced by sources placed under Federal jurisdiction or in provinces adhering thereto. In its Article 4, the law entrusts the national sanitary authority with the implementation and execution of a full national program of prevention and control of air pollution, creating for this purpose a Registry and census of pollution sources, and in Article 5 it places under the same authority an Official Registry of Contaminant Sources.

The Law contains three annexes. The first one establishes specifications to be observed by motor vehicles operated by ignition, licensed anywhere in the country, relative to control of the release of contaminants. In Annex

[6] *Cfr.* Robert Kiefé, "Défense contre le Bruit", 16th. International Congress on Civilization, Food and Life Conditions Diseases, Luxemburg, 1970 (Lecture); Theodore Berland, "The Fight for quiet", New Jersey, 1970.

[7] C. B. Simone, "El ruido de las aeronaves en el nuevo código aeronáutico argentino", in Journal *La Ley*, vol. 128, p. 116.

II, the law determines the methods of sampling and analysis of the different contaminants and, according to the degree of concentration of each one per unit during a definite period of time, it establishes the standard of quality of the air and the situation which, in keeping with the progressive degree of contamination, it designates as of alert, of alarm, and of emergency conditions. Annex III defines the terms used by the Law.

The national sanitary authority is empowered by Article 6 of the Law to determine the standards of air quality (any maximum degree of concentration of one or more contaminants in the atmosphere) and concentrations of contaminants corresponding to the Plan of Prevention of Critical Situations of Atmospheric Contamination, brought about by the situations mentioned above with reference to Annex II. The Plan referred to must include different measures to preserve the health of the population, depending on the degree of contamination (alert, alarm, or emergency conditions).

The Law distinguishes between fixed sources, designed to operate in a fixed location, and mobile sources of contamination. It establishes that regulations must prescribe deadlines for fixed sources to adjust emission to lower levels than the maximum allowed. It also rules the necessity of obtaining working authorizations.

The Law provides for the creation of interjuristictional commissions when the emission of polluting sources covers more than one jurisdiction. Chapter VI contains the different penalties to which the transgressors of the law and its regulations are liable: a) fines ranging from 100 to 50 000 pesos; b) temporary or permanent closing of the polluting source; c) temporary or permanent loss of the circulation licence in the case of air, overland, maritime, or fluvial transportation. Penalties vary according to the gravity of conditions foreseen by the Plan of Prevention of Critical Situations and also in the event of backsliding.

g) *Law 20560 on industrial promotion*

The law, published in the Official Bulletin of November 14, 1973, declares that among the different purposes of industrial promotion, "preserving the proper environment and living conditions from pollution and debasement to which persons and natural resources may be subjected by industrial activity" is included.

In its Article 8, the law forbids the establishment of new industrial activities in the Federal Capital and it subjects the reorganization and expansion of existing activities to norms issued by the Executive Power through regulatory channels, bearing in mind the purposes of the law.

In the next provision, it excludes from the different benefits with which

it promotes industry, the installation of new industrial activities in the areas surrounding the Federal Capital, within a radius of sixty kilometers, according to the aforementioned policy concerning reorganization and expansion of existing activities. The Executive Power may establish by decree the exception of certain areas, taking into account both the general purposes of the law and the need for regional and provincial planning regulated by Article 14, with a view to achieving a steady and balanced development of certain regions where particularly unfavorable conditions prevail.

h) *Law 5965 of the Province of Buenos Aires on protection of the sources of supply for water courses and reservoirs, and of the atmosphere (Official Bulletin, December 12, 1958)*

This law prohibits the flow of solid, liquid, or gaseous refuse of any origen into the atmosphere, into mains, irrigation ditches, brooks, streams, rivers, and into any other source, course or body of water or reservoir, superficial or subterranean, involving degrading or deterioration of the air or the water of the Province, without prior purifying or neutralizing treatment making them innocuous and harmless for the health of the population, or preventhing their pernicious effect in the atmosphere, as well as pollution, damage, and obstruction in water sources, courses, and pools. It forbids the flow of sewage along sidewalks, and the issuing of certificates of completion and approval of establishments, buildings, industries —including cases of precarious constructions—, when they discharge effluents, thereby infringing the law, as may be verified by the control authority in the areas under the jurisdiction of the Province, that is, the provincial Ministry of Public Health. It entrusts the municipalities with control of compliance with the law, and they may build, at the expense of negligent parties, such installations as may be necessary to fulfill the purposes of the law, the levying of fines, and the closing of establishments being among the administrative penalties specified.

In practice, the granting of powers to the local municipality concerning compliance with the law, has led to nonobservance of the same. Most of the mayors have shown lack of interest in demanding strict compliance of this law, seeking, perhaps, to prevent industries from moving to neighboring districts, since such a measure would deprive their own municipality of powerful taxpayers and contractors.[8] The excellence of the law has thus been frustrated in its practical application.

[8] Guillermo J. Cano, "Introducción al Derecho Ambiental Argentino", in Journal *La Ley*, 8/4/74, p. 3.

i) *Law 20481 on policy to avoid water pollution by hydrocarbons (Official Bulletin, August 22, 1973)*

This law, the enforcement of which has been postponed to the end of the present year, is intended to avoid water pollution by hydrocarbons, through financial compensation required of proprietors, such as shipping companies or ship agents, operating in the ports within the jurisdiction of the General Administration of Ports, if hydrocarbon leakage is proved.

Although the above law provides for financial compensation, this can actually be construed as a fine, since it not only ranges between 5,000 and 500,000 pesos, according to the degree of damage duly verified, but it increases in case of backsliding, thus acquiring the nature of a truly criminal penalty. The amount collected will be destined exclusively to cover expenses involved in cleaning water surfaces.

The law also establishes insurance coverage against water pollution, making it an obligation for any ship with a registry of more than 300 tons gross. It likewise prescribes the obligation for all ships to declare the hydrocarbons they carry, under pecuniary penalty in case of noncompliance.

Among other provisions, the respective regulation establishes conditioned exceptions to the prohibition of unloading or spilling hydrocarbons in the Argentine ports, access canals, and navigable waterways, and it also establishes regulations for handling fuel.

Finally, it is necessary to point out that the reigning laws cover partial aspects of prevention and control of water pollution. In the national as well as in the provincial sphere, the subject is not uniformly approached, thereby presenting gaps and causing confusion.[9] Nevertheless, mention should be made of Law 13.577/73 that regulates the administrative powers of the National Waterworks (Obras Sanitarias de la Nación), such as cleaning up the water courses that endanger the health of the communities they serve, as well as the inspection of vehicles carrying septic tank residues.

j) *Legislation concerning National Parks*

National Parks in Argentina were created in 1904 by means of a donation presented by Francisco P. Moreno, a prominent scientist, naturalist, and colonizer. Lands donated for the purpose of constituting a reservation as a national park, covered 7,500 hectares. By subsequent

[9] *Cf.* Susana S. Depaoli de Grassi, "Legislación Nacional y Provincial sobre Contaminación de Aguas" in *Recursos Hídricos*, vol. 2, n. 6, p. 10.

decrees, this reservation was extended to 43,000 hectares in 1907, and to 785,000 hectares in 1922.

Since then, the different laws successively issued dealt with the limits of the parks and reservations which, by means of the creation of other parks, reached a total area of 2,400,000 hectares, to which the provincial parks and reservation must be added.

Law 18.594 and its regulations (Decree 637/70) governs the institution under the name of National Parks Service.

k) *Flora protection*

There is no current law fully covering all aspects relating to flora conservation. [10]

As far as forestry is concerned, up to 1948 felling was practiced indiscriminately in woodlands covering thousands of hectares. The only exception was the preservation maintained by National Parks.

Law 13.273 and modifications thereof, concerning forest protection, creates a plan of defense and promotion of great environmental value. It classifies forests as: *a*) protective; *b*) permanent; *c*) experimental; *d*) special woodlands, and *e*) productive. It places all woods under a common legal regime, although protective and permanent forest are also governed by a special forestry regime, while public woods are under specific provisions. It provides for protection against fire, forestation, and reforestation, forest reserves, and establishes various fines that apply upon infingement of the law.

On June 5, 1974, an agrarian law project was published. It was prepared by the Secretariat of Agriculture and Livestock, containing a full chapter relative to conservation of natural resources.

Among the purposes of the project, it expressly includes the recovery, conservation, and improvement of soil fertility. Rational cultivation becomes an obligation inherent in ownership of land (Article 5, clause *c*), noncompliance with which may lead to loss of property rights.

Article 25 declares as being of national interest, the preservation, improvement, and recovery of soil suitable for farming throughout the national territory. In different articles the law contains regulations intended to prevent erosion, degradation, and exhaustion of the soil, and it imposes adequate technical measures for cultivation of the same.

[10] María Buchinger, *op. cit.*, p. 205.

1) *Environmental Protection under International Law*

Argentine problems of environmental protection under international law, refer mainly to relations with neighboring countries, concerning conservation of water resources. It should be pointed out that in the Argentine Republic, 90% of superficial waters are considered to be international waters.

With regard to the River Plate Basin, an institutional system has been established since 1967, based on different legal instruments wherein environmental protection is directly or indirectly taken into account. [11]

The chief instrument of the system of the River Plate Basin is the treaty signed in Brasilia on April 23, 1969, by Argentina, Bolivia, Brazil, Paraguay, and Uruguay. In the introductory paragraph 2, it is stated that in the use of the great natural resources of the region, the preservation thereof for future generations shall be assured by means of rational utilization, and in Article 1, mention is made of the preservation and development of animal and plant life, in connection with the aims and purposes of studies, programs, works, operative agreements, and legal instruments.

The topic of environmental protection has been kept in mind at subsequent meetings. That is how Resolution 42, adopted at the Fifth Ordinary Meeting (Punta del Este, 1972), incorporated the recommendations of the United Nations Conference on Human Environment as a principle which must guide the future decisions of the Intergovernmental Coordinating Committee.

Another basin of great importance is that which connects the Argentine Republic with the Chilean Republic. In 1971, both countries signed the "Acta de Santiago sobre Cuencas Hidrológicas", wherein the respective Foreign Ministers laid the basis for a future agreement which will fully and specifically regulate the use of the Argentine-Chilean basin of water resources. [12]

Among the many reasons which motivated this agreement, mention must be made of the need to preserve the living resources of these basins and to prevent pollution thereof, with a view of obtaining better ecologic conditions. As an immediate precedent, this agreement recognizes in its provisions the Helsinki precepts and adopts the principle of equitable and reasonable use of fluvial and lake waters. It also recognizes the right of

[11] *Cf.* José R. Sanchis Muñoz, "Derecho y Administración Ambientales en el Sistema de la Cuenca del Plata" in *Primeras Jornadas Argentinas de Derecho y Administración Ambientales*, Buenos Aires, 1974, p. 259.

[12] "Actas de Santiago sobre Cuencas Hidrológicas" in *Boletín Informativo del Ministerio de Relaciones Exteriores y Culto*, year 1, n. 6, June, 1971, p. 127.

the two States to make use of these waters by reason of their requirements, provided no appreciable damage is caused to either of them. It should be pointed out that this Act goes beyond the field of waters resources and enters the brand-new international environmental law, upon declaring that the contracting parties must preserve the ecologic resources of their common basins within the area of their respective jurisdictions, thereby including not only water, but all natural resources interrelated in a common basin.

III - Bases for the improvement of environmental law in the Argentine republic

a) *Scientific-technological prerequisites*

The creation of a broad and effective body of legal norms intended for environmental protection, calls for prior knowledge of factual problems, the cause and effect of the same, and the answers that modern technology can furnish. Regarding this subject, Jean Rostand points out the increasing importance of collaboration between specialists devoted to natural science and specialists in law, for the purpose of preventing the danger involved in the degradation of renewable resources. [13]

Thus, in order to legislate against any particular form of contamination, it is necessary to determine the extent, the distinctive features, and the effects of this contamination on plant and animal life and goods, or on the health of human beings. On the other hand, it is also indispensable to be acquainted with precise technological practices intended to prevent and remedy environmental damage, in such a way that the law may impose the adoption of such practices through its own normative technique. Natural science also makes it legally possible to assure rational use of renewable resources, by giving, for instance, indications to avoid salinization or erosion of the soil, indications on the maximum rate for the felling of treets, or the extent of the use of subterranean water to permit replenishing of water bearing strata.

b) *Economic prerequisites, environmental protection, and economic development*

Correlatively to the clase interdependence between the ecosystem and the sociological system, there is a necessary interaction among the different

[13] Prologue to Michel Despax work *La Pollution des Eaux et ses Problèmes Juridiques*, Paris, 1968; likewise Robert Kiefé, "La Défense de la Santé Publique contre la Pollution des eaux et de l'air" (lecture).

sciences dealing with these systems in one way or another: ecology, technology, economy, and law.

Vernier criticizes the false opposition between economy and ecology, beginning by pointing out their common etymology [14] and reaching the conclusion that if ecology were not in the service of economy it would be useles, and that if economy were to do without ecology, it would prove dangerous. In this sense, Bertrand de Jouvenel objects to economy dealing solely with relations among men and not taking into account their links with nature. He declares that "the real economic circuit comprises three stages: loans made to nature, processing and consumption of that which is taken, and the discarding of refuse". The traditional economic science dealing only with the second stage will be surpassed in a few years.

Effective legislation on environment cannot ignore the requirements and limits imposed by the evaluations of an economic science, which may indicate the timelines and scope of legal regulation of human activities connected with environment.

However, such evaluations present divergences on the subject of economic development.

Since the late sixties, quite a number of scholares have questioned whether steady economic development is really desireable or not. Of course, as Pavitt rightly points out, [15] this controversy is hardly new. To prove this, it is sufficient to refer back to the classical writers at the turn of the 18th century.

The problem particularly affects the Argentine Republic as a country in the process of development.

A group of Argentine scientist is working on a Latin American World Model. [16] With this model they intend to refute a parallel research project done by the Massachusetts Institute of Technology, [17] according to which demographic and economic development should be voluntarily checked as soon as possible, in order to attain a state of ideal balance. An ecologic calamity is foreseen by these scientists should the present rate of world growth continue. In the opinion of the group of Argentine researchers, under the direction of Dr. Amílcar O. Herrera, the obstacles standing in the way of harmonious development of mankind in a foreseeable future, are not physical but sociopolitical, bearing in mind the fact that if the present trends of mankind continue, the deterioration of the physical

[14] Jacques Vernier, *La Bataille de l'Environnement*, Paris, 1971, p. 192.

[15] K. L. R. Pavitt en "Malthus and other Economists" in *Thinking about the future*, London, 1973, p. 137.

[16] *La Nación*, Buenos Aires, April 15 and 17, 1974.

[17] D. H. Meadows, D. L. Meadows, J. Randers and W. W. Behrens III, *The Limits to Growth*, New York, 1972.

environment in which it develops may become an extremely important problem.

On the basis of more than 400 variables, as against the 69 variables of the Massachusetts Institute of Technology model, and drawing inspiration from other sociopolitical ideas, the Argentine group warns about the need for coordinated international action, in order to stap the encouragement of consumption as a value in itself, and to satisfy the real basic requirements of mankind.

Economic development is, therefore, not only possible but necessary, although dependent on a change in the system of values upheld by the present social organization, since these values are intrinsically destructive of the ecosystem, just as they are destructive for man himself, through ever increasing alienation.

Following the same line of thought, the "Three-Year Plan for National Reconstruction and Liberation 1974-1977", drawn up by the present Argentine administration, establishes in chapter IX (page 126), dealing with human environment problems, that the norms for preservation and recovery of natural environment, are based on a doctrinal plan of humanistic inspiration. Furthermore, it establishes that one of the fundamental postulates that this plan applies to the action of the new State Secretariat of Natural Resources and Human Environment is

> the consistency of the aims of industrial, farming, mining, and forestry development, as well as technological development and use of natural resources, with the principles of environmental protection and the conditions and provisions for development to be complied with by human settlements.

In conclusion, the problem of countries in the process of development consists of determining the type of evolution that is sought. It implies whether the aim is a supertechnically developed community with the same destructive results obtained by superdeveloped countries, or whether the choice is a qualitative development, achieved by man, for man, conforming to the stature of man.

The relative character of the concept of development should be borne in mind. Erard Eldin [18] points out that the concept considered on the basis of economic indices, could be the gross national product, but if negative factors, such as environmental deterioration were also included in this concept, development would be nil. The same writer defines eco-

[18] Gerard Eldin, "Necesidad de cooperación y coordinación intergubernamentales en la política de control del entorno" in *Ecología y Contaminación* ("Managing the Environment, International Economic Cooperation for Pollution Control", New York, 1971), Buenos Aires, 1974, p. 215.

nomic growth as a decrease in the shortage of goods and services, so that any law intended to preserve indispensable elements which are no longer gratuitous, such as noncontaminated air or water, contributes to economic development in a broader sense than mere expansion of production. On the other hand, environmental control encourages technological research and anticontaminant industry, both of which are positively influential on production in the conventional sense.

Geigel Lope-Bello, [19] referring to the Swedish experience, declares the need for environmental legislation to be coordinated with that which governs and promotes economic and social development, for which the passive position of mere protection is not sufficient. Law must not be limited to establishing prohibitions and sanctions, but rather it should anticipate events originated by technological progress.

Although the capacity of natural environment to absorb and disintegrate refuse without suffering intolerable damage, is considered at present as an economic resource by countries with low industrialization, it is necessary to avoid the importation of "dirty" industries. In this respect, the Argentine Three-Year Plan establishes that "the use of 'dirty' and contaminant technical processes shall not be admissible, even though at first they may bring positive effects on production". In any case, the need to improve living conditions must prevail over the mere economic estimate of individual profitcost. [20]

On the other hand, it is proven that the cost of an effective conservationist system is considerably lower than that of reconditioning a deteriorated area. In this respect, it is often wise to encourage industrial use of natural products which are not as expensive as synthetic products, considering the cost of environmental deterioration caused by the latter.

c) *Legislative technique*

The provisions concerning the regulation of conservation and preservation of natural resources and of human activities which affect environment, now constitute a heterogeneous and inorganic whole. Jean Untermaier, [21] points out that the principal flaw in the texts which make up this new legislation on environment, lies in the superabundance, contradic-

[19] Nelson Geigel Lope-Bello, Cuatro Estudios de Casos sobre Protección Ambiental: Inglaterra, Francia, Suecia, EE. UU., Caracas, 1973.

[20] *Plan Trienal para la Reconstrucción y Liberación Nacional*, chap. IX, Buenos Aires, 1973, p. 126.

[21] Jean Untermaier, *La Conservation de la Nature et le Droit Public*, Lyon, 1972, p. 15 seq.

tions, and confusion thereof, which hinder its application, in spite of the excellence of its content.

The concept of ecosystems, expressing reciprocal interaction among different environment components, gives conceptual unity to the different provisions dealing with environment. However, the intricacy of these provisions and their belonging to very dissimilar bodies of law, makes their codification very problematic. That is why the "systematic text" is to be preferred, for it makes it possible to organize and facilitate the knowledge of environmental law, maintaining the legal norms in their original texts. The adoption of this method does not prevent the entire codification or legislation of a particular element of the ecosystem. For instance, Joaquín M. R. López, [22] upholds the necessity of sanctioning a water code covering the entire hydrological cycle, regulating all uses of this cycle and its interdependence with other natural resources. In a similar sense, María Buchinger [23] advocates special and full legislation on flora protection.

For the organization of laws currently in force, whether it be by means of systematic texts, as supported by Guillermo J. Cano, [24] or by means of the doctrinary treatment of the principles thereof, it is necessary to examine thoroughly the unifying concept of the ecosystem and to discern the values that are legally protected through preservation of the environment: human health and life, directly threatened by the encreasing deterioration of environment, as well as other important interests, such as those of regional or national economy, mainly dependent on environment. The importance of these legal values must serve as guidance for future legislative activity, in order to appraise the worth and extent of the legal remedy to be applied. An explanation, both teleological and axiological, makes it obligatory to bear constantly in mand that through regulation of man's relation with the soil, and with water and the atmosphere or his surroundings, his own biological integrity and even his very existence as an individual and a species, are being protected.

In this respect, the motion presented by the Executive Committee of the Association for Environmental Protection during the First Argentine Meetings on Environmental Law and Administration was appropriate, as it proposed the inclusion in a future constitutional reform, of a clause drawn up approximately in the following terms:

[22] Joaquín M. R. López, "El Derecho de Aguas, el Derecho de los Recursos Naturales y el Derecho Ambiental" in *Primeras Jornadas Argentinas de Derecho y Administración Ambientales*, Buenos Aires, 1974, p. 112 seq.

[23] María Buchinger, *op. cit.*

[24] Guillermo J. Cano, *op. cit.*, p. 4.

> The quality of human environment, and the enjoyment of natural surroundings, are rights pertaining to each of the inhabitants of the country and to their descendants. Such rights include living in a physical and social atmosphere, free of factors harmful to health, to the preservation of natural and cultural resources and to aesthetic values, all of which will permit dignified human living conditions, as requisites for harmonious development of the country.
>
> Every inhabitant has the right to obtain rapid and effective preventive or corrective protection from the competent authorities and judges, with respect to present or foreseeable acts of environment deterioration. The judges will admit the exercise of action protecting this right under procedural conditions equivalent to action whereby personal freedom is guaranteed.
>
> The inhabitants, the public authorities, and artificial persons are bound to comply with and not omit acts conducive to the preservation of environment and the quality of living conditions, or to remedying deterioration already suffered therein.

Another basic aspect for effective environmental legislation, is an institutional administrative organization of control and prevention in the various sectors related to the ecosystem. Inasmuch as this system gives rise to a problem which goes beyond interinstitutional bounds upon interrelating traditionally isolated aspects, an esential point of future legislative reforms is to coordinate the institutions and legal regulations dealing with environment, particularly in countries such as the Argentine Republic, whose federal structure can frustrate the purpose of a coherent environmental law. In this country interprovincial treaties and adherence of the provinces to the laws dictated by the National Congress,[25] have, up to now, been resorted to.

d) *Institutions applicable to environmental protection*

Among legal techniques for environmental control, and as part of a vast plan of State activities to promote development, mention may first be made of tax exemptions, and exemption from custom duties and all manner of forms of economic privileges and methods of promotion, intended to encourage action in keeping with standards prescribed by environmental technology.

In the sphere of administrative law, an important aspect of environmental law is the regulation of the use of public property and the granting

[25] *Cf.* Juan Ramón de Estrada, "Control Ambiental: Deslinde de Poderes Nacionales, Provinciales y Municipales" in *Primeras Jornadas...*, quoted.

of concessions or "licenses" [26] for the pursuit of industrial, agricultural, or urgan activities harmful to environment, subject to the parallel adoption of methods intended to reduce the harmful effects thereof to an admissible minimum.

The limitation of private property in favor of public interest, is another of the most relevant legal techniques, it being possible to impose administrative easments to this effect, such imposition even going as far as expropriation. State monopoly of certain public services or productive activities may respond to reasons of environmental character.

With regard to civil liability of private individuals for damage caused to environment, it is necessary to take into account the legal experience of industrialized countries. In these nations the trend is to tax companies with "social" costs or external costs, originated by the industrial activity, such as those deriving from pollution, thus inducing such companies to adopt the necessary technological means to reduce said costs. [27] However, this "internalization" of social cost of contamination must be spread as broadly as possible, so as to ensure that a single company, which may prove to be the target of a suit for damages, is not burdened with the responsibility which is incumbent on a whole industrial or social sector. But such distribution must not go so far as to eliminate the incentive of all the companies pertaining to said sector to take a more sensitive account of harmful side effects of their activities and to endeavor to stop them. [28]

The superlative importance of the protected legal value, indissolubley linked with the survival of man, justifies the adoption of penal sanctions to punish the most serious offenses.

However, these sanctions must be carefully enacted in those developing countries where the limited possibility of transforming methods of industrial production prevents excessively rigid legal treatment. On the other hand, the fact that the abuse of penal norms proves contrary to their effectiveness, is a well-known criminological principle.

Notwithstanding, once the incrimination of highly prejudicial conduct infringing the fundamental rules of environmental protection is decided, penal norms should contain sufficiently severe sanctions to dissuade potential transgressors from any decision favorable to the persuance of their noxious activity.

The most frequent mental element found in this kind of offenses is

[26] *Cf.* Peter H. Sand, *Legal Systems for Environmental Protection-Japan, Sweden, United States*, Rome, 1972, pp. 10 and 37.

[27] *Cf.* Milton Katz, *The Function of Tort Liability in Technology Assessment*, Harvard, 1969.

[28] Milton Katz, *op. cit.*, p. 662. The subject of pollution cost distribution is dealt with at length by Jacques Vernier, *op. cit.*, p. 195 seq.

dolus eventualis, in which the delinquent does not foresse the result as a positive consequence of his conduct, but agress and consents beforehand regarding the risk involved. Améndola [29] mentions, as an example, an industrialist who being aware of the deterioration of the water course that the drainage of refuse from his establishment may cause, continues to operate in this manner and accepts the risk that such damage may actually exist, although it may not have been directly intended from a strictly psychological viewpoint.

Another legal category of utmost importance in environmental criminal law, is that which refers to crimes producing mere danger, that is, offenses performed through mere threat to protected legal values. [30] Within this category, a prominent part corresponds to the subcategory of crimes creating danger per se, wherein the judge does not have to investigate the actual production of danger for the protected legal values, because the evaluation thereof has already been performed by the legislator on the basis of common experience, the correspondence of the conduct under discussion with the type of conduct outlined by legal description being sufficient.

The close relationship already pointed out (see letter *b* of this chapter), between ecology and economy explains the link existing between economic penal law and environmental law. Both answer to the demands of complex modern economic life and are also directed to the "white collar" delinquent, who exhibits identical criminological features: outward respectability and a cold and calculating commission of the deed. Therefore, the list of economic criminal functions discussed by Marc Ancel at the Fifth International Congress of Comparative Law [31] are applicable to environmental criminal law. These include imprisonment and fines, permanent or temporary disqualification to practice certain professions or business activities, the closure of establishments, the publication of condemnatory verdicts, general or special confiscations, warnings, and admonitions.

In the international sphere, the above Three-Year Argentine Plan, [32] advocates the recognition of the crime of genocide.

In the field of environmental procedural law, we must mention the actions which may be taken by a single individual or group in behalf of an entire community which has been harmed by contamination. The application of this legal instrument has thus enabled the United States to

[29] Gianfranco Amendola, *Inquinamento Idrico e Legislazione penale*, Milan, 1972, p. 63.

[30] *Ibid.*, p. 65.

[31] Marc Ancel, "Les Sanctions en Matiers de Droit Pénal Économique" in *Rapports Generaux au V Congrès International de Droit Comparé* (Brussels, 4-9 August, 1958), Brussels, 1960, p. 856 seq.

[32] *Plan Trienal, op. cit.*, p. 133.

enforce long-forgotten laws. These class actions are vital in pollution cases where damage caused by a single individual may affect thousands of his fellow men. [32 bis]

The ombudsman, the legislative commissioner for the investigation of citizens' complaints against bureaucratic abuse, originated in Sweden [32 ter] and is another valuable resort to replace the inertia of administrative officials and to seek redress for individual grievances voiced by citizens against violations of environmental law.

e) *Environmental Ethics and Environmental Laws*

Professor Jean Bouvier holds that the mere enforcement of existing laws is sufficient to correct the process of environmental involutions in France. [33] This stand is even more applicable to developing countries where the incipient deterioration may be temporarily curtailed by organizing and carrying out current legislation effectively.

However, it cannot be overlooked that environmental degradation threatens the very basis of planetary biologic equilibrium, putting at stake, according even to the many hopeful ecologists, the survival of man himself, above and beyond all self-created national or ideological barriers.

Without despising minor temporary remedies which make up the present legal weaponry, it must be stated that the magnitude of today's environmental challenge, which surpasses all previous expectations, demands an entire renewal and enlargement of the legal response.

Furthermore, the gigantic ecological problem is not isolated from the total and relentless process of man's deterioration, whose most spectuacular symptoms are violence, poverty, drug addiction, etc. We must, therefore, face within this wider context, that law as a merely coercitive instrument will not suffice, unless it is pervaded by a new ethical insight.

In this connection, the environmental challenge is not only deeply interwoven with the social, political, and economical imbalances that burden the world, but both have a common root located in the very center of individual consciousness. This common cause arises from the phenomenon of psychological conditioning, according to which a human being's genuine self is replaced by a set of man-made norms and patterns which make

[32 bis] John Tinker, "Is English Law too Stuffy for Pollution?", comment in *New Scientifist*, 28 September, 1972.

[32 ter] *Britannica-3*, vol. 13:269 d; vol. 5:95 f.

[33] Jean Rouvier, "Report to the Environment Committee", Paris, 1972, quoted by Mateo Magariños de Mello in "Apuntes para una Teoría General del Derecho Ambiental" in *Primeras Jornadas Argentinas de Derecho y Administración Ambientales*, *op. cit.*, p. 66.

up his social and cultural environment. The psychological authority of these influences, inasmuch as they change the individual into a machine berefit of all sensitivity and awareness, has led to this freak consumer society, reduced to mechanical search for pleasure or self-deceptive security through dead images and fossilized ideas.

Fortunately, this state of psychological conditioning is not total, because the capacity to search within himself and eventually find the real value, which is a state of flux of psychic energy through which outer influences and images lose their alienating force,[34] is potentially inherent to the nature of man.

This calls for a new educational approach, because teaching must not only consist of imparting mere accumulative knowledge, but, delving within oneself and witnessing the whole process of conditioning, of giving forth general laws whereby each individual may envisage the way to eradicate his own bondage.

Thus, it happens that the current instruction about environmental issues, although necessary, is insufficient. Beyond a mere concept of a new way of living, both as regards the individual as well as his relationship with the social and physical surroundings, a vital awareness of the whole process is indispensable. The urgent need for the economic and legal planning of growth must be upheld by a spontaneous collaboration not based on the harsh authority of codified morality, but rather on the deep inward simplicity that arises from the liquidation of conflict.

This linkage of the great ecological problems, together with the economic and social conflicts with the apparently inoperative level of individual psychology, may seem exaggerated. However, the outer remedies, already well known, must be applied simultaneously with the inner solution, because otherwise the unresolved inner conflict surreptitiously overcomes the results achieved by the former and nullifies them.

To set up a real order both as to interhuman relations as well as between man and nature, one cannot rely exclusively on the law nor on social anthority. Rather is it essential that each individual delve within himself and question the influences acting upon him, so as to recover the intelligent creativity that leads to an ethical conscience of environmental threats.

All the solutions, including the legal ones, are utopian, unless there is actual inner work directed towards the transformation of the individual in its deepest sense. This cannot be done through trivial formulas, such

[34] The considerable scope of the subject precludes a suitable development of generalizations, as well as an exhaustive treatment of its countless particular features. *Cf.* Edgardo Rotman, "Las Técnicas de Individualización Judicial frente a un moderno concepto de resocialización" in "Revista de Derecho Penal y Criminología", Buenos Aires, 1972, n. 1, p. 114.

as an ingenuous back-to-nature program, but rather by means of the fertile negation of the false values which have led to social indifference and to the utter lack of real communication.

It is only through this inner change that a new ethical insight may arise to give birth to a different kind of human relationship. This will lay the foundation for a new legal approach that envisages the human being as a totality and will be capable of coping with such antisocial acts as the heinous destruction of nature, and thus provide the legal means to achieve the long-awaited economic development directed towards the satisfaction of the primary needs of man.