

Progress in the Development of Natural Resource Legislation in Latin America

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This article examines briefly the history of legislation dealing with natural resources in Latin America during the last two centuries. The process has been one of strengthening of legislation governing different resources and an integrated approach in cases of interdependence.

I. INTRODUCTION

The purpose of this paper is to examine the historical development of natural resources legislation, particularly during the 1970s which was a period of consolidation of legislation dealing with natural resources, into unified and organic codes. The reasons for the codification process and for its inefficient enforcement will be discussed. In addition, the progress in the fields of water and mineral resources legislation will be examined.

For the purpose of this article, 'Latin-America' is defined as the region that includes the Spanish and Portuguese speaking countries of America and the Caribbean. The geographic region has been selected due to the common origins of its political and legal institutions. Of course, this geographical delimitation does not imply that any conclusions here set forth are not applicable in the rest of the world; they must, however, be adapted to regional peculiarities.

adopted from the Spanish and Portuguese practice of colonial times. Pre-existing aborigine legislation has had a minor impact on present institutions. During colonial times, that is up to the middle of the 19th Century, Latin American legislation dealing with mineral resources had several features from which modern practice is drawn.

(a) The Spanish Crown - which during a certain period also dominated Brazilia territory - declared, at the beginning of the process of colonization, that land, water, forest and pastures were its property (Las Leyes de Indias, 1511).

Natural resources were gradually assigned to individuals, through royal 'concessions' ('mercedes') or grants, after request by interested parties. Cities and villages also received grants ('ejidos') for the use in common of land by urban inhabitants, specially for pasturing and agriculture.

Where mines were involved, royalties were charged by the King on the gross product from such activities. The ownership of the land on which the mine was located was retained by the Crown. However, the right to exploit a mine was equivalent to private property. Forest and pastures were considered appended to the land.

2. EVOLUTION OF NATURAL RESOURCES LEGISLATION

2.1 UP TO THE FIRST HALF OF THE 20TH CENTURY

Current legal norms in Latin America have been

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Thus, their fate depended entirely on the future of the latter. Water remained in the public domain, however concessions to individuals were granted for its use, sometimes in perpetuity.

By the end of the 19th Century – under the influence of Andrés Bello – some countries (Venezuela, Colombia, Ecuador and Chile) initiated a new orientation whereby water rights were granted – *ex lege* – without concession to riparian land owners. Later on, when the demand for water exceeded the supply, conflicts emerged because of this system. To deal with the conflict, adjustments in the water legislation of these countries have taken place and such systems have gradually been abandoned.

(b) Separate legislation was drafted for each use of natural resources (e.g. in the case of water resources, domestic, navigational, agricultural uses, etc.) or – as mentioned by Peter Sand (1972) – for certain risks (floods, droughts, fires, etc.). Thus, legislation was use- or risk-oriented for each kind of natural resources, and not resource-oriented. Each country enacted legislation to deal with the most urgent or repeated of conflicts (urban land use, domestic water use, exploitation of salt and coal deposits, etc.). As a result, progress in the development of legislation governing each sector was independent of the others and therefore uneven.

(c) The laws which were passed regulated the relationship among human beings because conflicts emerged between them regarding the use of natural resources. The law did not regulate relations between human beings and resources. This last orientation began only during the 20th Century when legislation that dealt with conservation began to be passed.

(d) During the same period, because resource availability was much greater than demand, legislation fostered the greater use of resources in order to promote demographic and economic development. Clauses such as *'alterum non laedere'* (Marienhoff, 1942) or derivatives thereof, protected the chronological priority of uses. Such clauses created a rigidity with regard to the rights of individuals to use natural resources, a situation that would later create difficulties when it became necessary to change from one use to another.

(e) In many countries the substantive content of legislation dealing with individual rights and

duties and the organization and definition of the authority of the enforcement agencies was regulated by the same statutory law. Such an approach was not very convenient because the need to readjust the authority of administrative organizations developed faster than the ability to change legislation dealing with individual rights and duties.

2.2 FACTORS OF CHANGE TOWARDS THE MIDDLE OF THE 20TH CENTURY

Six factors, all of which have become extremely important in the middle of the 20th Century, have had a decisive influence on natural resource legislation:

(a) The demographic explosion in which the population increased geometrically while natural resources became scarce as a result of the greater demand for them. This situation forced legislative bodies to establish priorities for the use of different resources (e.g., hydroelectric power generation vs. thermal energy with oil or coal), or for different uses of a single resource (e.g.: municipal vs. agricultural use of water).

(b) The demographic 'implosion': the emigration of peoples from rural areas to urban areas and establishment of rural villages placed a heavy burden on natural resources, which in turn imposed damage, by the synergetic effect of human activities, on the environment. This population shift affected most strongly the use of land, water, air and energy and forced legislatures to assign new uses for natural resources (e.g., change from agricultural use of urban or industrial use of water), and to indemnify those enjoying existing rights for pre-assigned uses.

(c) The industrial revolution, with its new technologies, demanded a significantly greater use of natural resources and brought with it a deterioration of environmental quality. Air, water and soil pollution were repercussions of the industrial revolution as was the awareness of the eventual depletion of resources (e.g., mineral ores, aquifers, soil, etc.).

(d) The energy crisis, which induced a change in the energy base that sustains human life on earth, caused deep institutional, social and political changes, forcing subsequent legislative changes (Rifkin, 1981).

(e) The theoretical formulation of the thesis of interdependence among natural resources and its uses: Gifford Pinchot, a forest engineer, later Governor of Pennsylvania (USA) and a founder of the American conservation movement, explained the theory of interdependence as follows (Pinchot, 1947):

"One day, while horseback riding through the woods I was in charge of, I thought of the relation between the woods, the rivers and interior navigation; between hydroelectric energy and the control of floods; between the soil and its erosion; between coal, oil and other minerals; between fishing and hunting and the many other uses of natural resources. All those problems had not come together before. What has all this to do with forestry, and forestry with it? They are not independent problems. My work put me in touch with them, but, what is the basic connection between them? Suddenly the idea crossed my mind that there is a unity in all this complexity in that the whole problem lies in the relation between one resource and the others: that there are no series of different questions, independent and antagonistic, each one in its separate island, as we are in the habit of thinking, that in its place exists only one problem with many facets. Seen under this new light, all these separate problems conglomerated and brought up only one big and central problem: the use of Nature for the benefit of mankind."

This theory, formulated in the fields of physical and natural sciences has become imbedded into thinking of political and social scientists and is being embodied in legislation.

(f) Identification of the legal and institutional implications of energy: the second law of thermodynamics teaches that every use of an energy resource produces through dissipation another resource of lower quality, and that the difference between the two (entropy) creates physical disorder (Billbac, 1977), and institutional disorder as well. The latter has been adequately described by Jeremy Rifkin (1981) in his analysis of the energy base of civilization. The different energy bases, when changing from civilization to civilization, produce significant changes in demographic patterns, social and life styles (Carlson *et al.*,

1982) and bring about changes in political and administrative institutions as well. Such change is reflected in legislation, including that dealing with natural resources. This aspect has been described as the relationships between laws of nature and the laws of man (Cano, 1982).

2.3 THE CODIFICATION OF THE LEGAL REGIME CONCERNING NATURAL RESOURCES

The first step after the end of the period of colonialization was to adopt resource-oriented legislation to replace the use-oriented legislation in existence at the time. Land, water and mining laws were changed in many countries. Moreover, they were assembled, by resource, into organic statutory laws or codes. This was not a purely formal change through a physical compilation of separate laws. Instead, general principles, focusing first on resource conservation and later on resource use, were adopted.

Later on, new legislation, dealing simultaneously with two or more kinds of natural resources was developed, because it was recognized that there existed a close link between certain resources. This was the rationale for the 1942 Forestry, Soil and Water Law of Venezuela. Similarly, Nicaragua adopted on 20 March 1958, a general law for the exploitation of natural resources which, although it was titled as such, excluded purposely for separate treatment, water and land resources.

The idea of consolidating into one legal text all the legislation dealing with all kinds of natural resources, by assigning a common legal theory to all, was formulated for the first time in a United Nations document in 1969. Consolidating allows a nation to give due consideration to the interdependence between various natural resources. It makes it possible to give uniform treatment to various legal institutions that might otherwise be dealt with differently in sectorial legislation; e.g. the establishment of priority among uses of the same resource; administrative procedures available to individuals who wish to obtain the right to use natural resources; conservation norms; easements, etc. (FAO, 1975).

The need to incorporate the 'interdependence' approach into legislation can be illustrated with the following example: mining laws regulate the use of water for mining activities as well as the

discharge of used waters after the mining process, but sometimes those laws are in contradiction with standards included in legislation dealing with water resources.

In 1974, Colombia adopted a National Code of Renewable Natural Resources and Environmental Protection which dealt comprehensively and in an integrated manner with both the legal regime for natural resources and with environmental problems. However, the Colombian parliament decided to exclude sanitary subjects and those referred to as non-renewable resources from the legislation.

In 1981, the province of Corrientes in Argentina adopted a Code of Natural Resources, codifying all legal aspects of the authority of the provincial government with regard to such resources (Public Law 3607). It is important to note that prior to the enactment of the Code, the provincial government issued an Executive Decree (No. 736) which set forth the framework for its policy on natural resources. The Code was one of several instruments used to implement that policy. The provincial decree defined its policy for natural resources to be as follows:

I. Natural resources must be used in the best manner in order to satisfy the public interest of the Province, together with the general interest of the Nation.

II. The State will not exploit natural resources directly, save in those cases where it is necessary for security and public interest reasons. Therefore, the State will transfer to private 'persons' (individuals or entities) those natural resources of its private domain in order to be exploited in an optimal and rational manner. She will also declassify those resources belonging to the public domain, such as islands, except when they must remain in such category for security, public interest or general enjoyment reasons.

III. Property and possession of natural resources by private owners or tenants will not originate or maintain large or very small land estates or similar forms of over or under-concentration of property; the former for constituting an abusive manner of exercising property rights that restrict freedom of competition and equal opportunities; the latter for constituting inefficient exploitation patterns that result in

extreme poverty for their proprietors and tenants.

IV. The use and exploitation of natural resources must bring about the territorial integration of the Province and an absence of underpopulated areas. Therefore, the use and transformation of natural resources or by-products will be done in sites where they are found, if this is economically feasible.

V. When the State has the right to grant the use of natural resources, priority will be given to those that best satisfy the public interest, through private activities and projects.

VI. When multiple uses of natural resources are feasible, such methodology will be applicable against single uses.

VII. The use of each natural resource must consider the reciprocal interdependence between the different resources and their uses.

VIII. All uses of a natural resource, public or private, must be done in a manner that will not alter harmfully the ecological equilibrium nor the quality of life, in or outside the provincial territory.

IX. The inhabitants of the Province not only have the duty of fulfilling activities to be prescribed by the Natural Resources Code regarding those resources, but also must not omit or engage in passive activities that affect negatively the enjoyment by other inhabitants of the optimal benefits from said resources.

X. Natural resources must be used in such a manner and to the extent that satisfy prudently present needs and allow the maintenance of reserves, adequate for the enjoyment of future generations.

XI. The public or its representative sectorial or local organization will be heard during the process of political decision-making. Direct participation of users and other interested parties will be fostered, particularly in the administration of the final stages of distribution of natural resources or of services given with them.

XII. When 'grids' or systems or works for the utilization of natural resources or defense against its negative effects having a vast geographical impact and that are to be built during long periods are approved, private or local projects or works which are developed in the meantime must be built in a manner that allows it to be incorporated into those grids or systems.

XIII. The training of the inhabitants of the Province for natural resources management, both in its managerial and technical levels, as well as of users, is one of the fundamental instruments to obtain an optimum use and to preserve the quality of life.

XIV. No one has the right to enjoy public or private natural resources individually or collectively, without contributing, financially or in kind to the expenses required by the good use and conservation of said resources.

XV. The discharge into a natural resource (air, water, soil) of substances, gases, waves or temperature that deteriorate its quality, implies a use of such resource and falls under the police power and tax control of the State.

XVI. In case of emergency catastrophes, pre-existing individual rights can be temporarily changed.

Other Latin American states have enacted, during the last decade, numerous laws concerning natural resources and the human environment. Yet few have followed the philosophical approach outlined above. A partial exception to this is the frame-law of Venezuela which established environmental criteria to be followed later on by other legislation, dealing with natural resource and environment policies. The National Environmental Plan is an integral part of the Venezuelan institutional system. To oversee the plan, a Ministry for the Environment and Renewable Natural Resources was established (Central Administration Organic Law, 1977).

2.4 CODIFICATION: THE RESULTS

Unfortunately, the Colombian National Code of Renewable Natural Resources and Environmental Protection after its adoption, did not come up to initial expectations. Its implementation did not proceed as originally planned for the following reasons (Cano, 1978).

(a) About 30% of the text, fundamental sections and chapters, was eliminated from the original draft which had been prepared by a team of FAO and Colombian legal experts. Chapters on the following themes were set aside: environmental liability, procedural rules for the implementation of the Code, use for environmental protection of the administrative machinery exist-

ing for Civil Defense, a system of inspection and control of private property and activities responsible for environmental degradation, popular action to denounce environmental impacts, licensing procedures for activities which may be environmentally harmful, an environmental 'ombudsman' institute, insurance against environmental risks, human food norms (transferred to the Sanitary Code), taxation system (partially), a regime for control of detergents and agrochemicals, compulsory register of private water rights, administrative (non-judiciary) establishment of easements and rights-of-way to use water, duty of riparians to obtain authorizations prior to construction of hydraulic projects, technical norms concerning well drilling and the use of groundwater, norms on conservation and protection of domesticated fauna, definitions of police powers, and finally certain provisions on national park management.

(b) The organizational (administrative) structure of the implementing authority of the Code, as designed in draft, which included reform of the principal agency (INDERENA), other agencies and administrative mechanisms, as well as the organization of an environmental data system, was not adopted. As a result, the agencies in charge of the implementation of the Code are many, and their actions are not co-ordinated.

(c) The by-laws or administrative rules, drafted for the implementation of the Code, were either not adopted or adopted too late.

In other words, the authorities responsible for implementation lacked the necessary power to effectively enforce the Code.

The opposite case occurred in Venezuela. A very efficient organizational structure was provided for the Ministry of the Environment and Renewable Natural Resources. This department was created for the implementation of the Frame-Law for the Environment. Unfortunately, legislation to further the basic criteria of the Frame-Law is being adopted very slowly. For example, a law regulating the water regime has yet to be approved by Parliament.

In Corrientes province, Argentina, the Code of Natural Resources, after being enacted has been 'frozen'. It is obvious that the three cases mentioned above - Colombia, Venezuela and Corrientes (Argentina) - show the need to link

legislative activity with the enforcement of the law and with the creation of an appropriate organization for administration.

3. SPECIFIC LEGISLATION ON SOME NATURAL RESOURCES

3.1 LEGISLATION ON MINING AND OIL RESOURCES

In Latin America, the trend in national mining and oil legislation, in the middle 1970s is principally one of abandonment of the system of private property or granted 'concessions' and of the gradual adoption of a regime of contracts of association, participation or service agreements under which governments retain ownership of the mineral deposits (and, in some cases, of the ores produced) yet accept the co-operation of private businessmen who take risks on their own account (except in service contracts). The businessmen in exchange for the risks taken receive a percentage of the benefits of a deposit's exploitation, sometime in money and other times in ores. During the mid-1970s, Venezuela nationalized its iron and oil deposits, and Chile, although it underwent a substantial economic and political change, maintained the nationalization of its copper industry. More recently, greater participation of private investment, both local and foreign, has been noticed in Argentina and Brazil, especially in the field of oil exploration. As a result, there has been a great deal of offshore exploration, although to date its success has been minor. What is important however, is that multinational firms at last seem to be learning how to deal with Latin American Governments.

Marc J. Dourojeanne (1980), in a profound study on Latin American and Caribbean renewable resources, examined the impact that mining activities have on the agricultural environment and on the energy sector. From his brief references to natural resource legislation and management it is clear that the most serious problem for the efficient development of natural resources resides in the area of administrative and institutional arrangements rather than in legislation.

3.2 WATER RESOURCES LEGISLATION

There is a trend to have Latin America national water legislation based upon the following principles:

(a) all categories of both surface and ground-

water are in the public domain;

(b) government controls private water use;

(c) legislation that deals with water supply and connected public services is combined with legislation designed to control effluents and water pollution;

(d) integrated into the same administrative agency is the management of surface and ground-

water;

(e) emphasis on the re-use of the same water resources; and

(f) improvement in the tax or price systems to finance hydraulic public works and services.

These topics were thoroughly discussed at an international conference of specialized legal experts which met in Caracas in 1976 (International Association for Water Law, 1977). The recommendations of the Conference were transmitted to the United Nations Water Conference, held in Mar del Plata in 1977 and the United Nations Conference adopted some of them (Cano, 1981).

In the 1970s some Latin American national water administrations were studied from the point of view of the inter-relationship between water, development and the environment (INCYTH/INELA, 1976). These studies concluded that administrative water organizations have not been developed to the point where they can effectively enforce water legislation.

4. RELATIONSHIPS AMONG NATURAL RESOURCES LEGISLATION AND OTHER BRANCHES OF THE LEGAL SCIENCES

4.1 WITH ENVIRONMENTAL LAW

Natural resources legislation is intimately linked with other branches of the legal sciences. While law as a science is only one, the overlap between the branches, e.g. between natural resource legislation and environmental law, may create conflict.

Specialists on Environmental Law have different views on the subject-matter of their field. These differences emerged at the UN Stockholm Conference (1972) which adopted a broad interpretation which stated that all natural resources law should be included under environmental law. Other experts prefer to limit environmental law to conservation and environmental preservation and exclude laws governing natural resource development and exploitation as long as

they do not have environmental consequences.

It is evident that, even from the restricted viewpoint, the area of overlap between environmental and natural resources law is considerable, because the legal regime for natural resource conservation covers two different fields:

(a) protection of the quality of the natural resource and of other environmental factors, falls under environmental law;

(b) quantitative conservation comes under natural resource law but generates an environmental problem when the resource is exhausted.

Thus, it is vital to co-ordinate and consolidate legislation dealing with natural resource exploitation with environmental law. As noted above it is precisely this that the Colombian Code and the Venezuelan Law partially do.

4.2 WITH RURAL AND AGRICULTURE LAW

This field of law was born and developed long before the birth of natural resources and environmental law and although it overlaps into natural resources law, it includes some areas which are not of its concern, e.g. cultivated resources (agriculture, forestry, fisheries, cattling); manufacturing and trade of industrial products of agricultural origin (wine, canned fruits and beef, wood, sugar, etc.); and labour and contractual relationships concerning agricultural exploitation. In some

countries where they attempt to codify legislation by grouping them by large sectors of human activities, the distinction between agricultural activities and mining has created conflicts, both for the legislative process and for the implementing authorities. In the final analysis, however, what matters is by whom and how laws are enforced, and not where they are located in the statute books.

5. CONCLUSIONS

The following broad trends can be identified in the development of natural resources legislation in Latin America during the past two decades:

(a) an increase of the natural resources attached to the public domain,

(b) an increase of the extent of the police powers of the Government over the use of natural resources as private property,

(c) the recourse to 'service' or 'risk' contracts with foreign investors for mining and oil exploitation,

(d) the addition of the environmental factor to natural resources legislation,

(e) an awareness of the inadequacy (with few exceptions) of the administrative organizations responsible for the enforcement of natural resources legislation.

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