

# WATER LEGISLATION IN SOUTH AMERICAN COUNTRIES

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IN SOUTH AMERICAN COUNTRIES

(Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, French Guiana, Guyana, Paraguay, Peru, Uruguay and Venezuela)

prepared by

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for the Legislation Branch Legal Office

Introduction by

Dante A. Caponera Chief, Legislation Branch The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

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### FOREWORD

The present study constitutes a further contribution to the inventory of the experience of countries in water law and administration which FAO has been compiling for several years now.

In its concern to promote agricultural production — an activity calling for water in abundance — the Organization has lent particular attention to the juridical and administrative aspects of the use and conservation of this resource. As long ago as 1950 FAO published a study on water law in the United States of America. This was followed by similar studies on Italy (1953), Moslem countries (1954), South America (1956), Central America, the Caribbean and Mexico (1975), European countries (1975), and African countries (1979). Using a similar approach, it brought out studies, limited to groundwater in Europe (1964), and a Systematic Index of International Water Resources Treaties, Declarations, Acts and Cases by Basin (1978). The United Nations Economic Commissions for Latin America, Asia and the Pacific, and Africa have also followed a similar approach in their studies of most member countries. The United Nations Secretariat has published a series of studies on the use and administration of water and international river basins.

Given the changes that have been taking place in water legislation in recent years, FAO in 1973 brought out a fresh edition of the study on water law in Moslem countries.

It was also decided to bring up to date the study on legislation in South American countries. Since the publication, in 1956, of the study on this subject by the distinguished South American jurist, Guillermo J. Cano, considerable changes have been introduced in the legal and administrative arrangements in those countries.

Accordingly, FAO requested Prof. Mario F. Valls to compile a comprehensive and systematic study of the water laws of the countries of that continent following the method developed in the successive studies made on this subject. The approach takes into account the unity of the hydrological cycle and considers that water management, in its widest connotation (conservation, exploitation, administration), constitutes an integrated whole; it also has the advantage of bearing a close similarity with the methods followed by other international organizations in the studies that they carry out.

The information contained in these pages is taken directly from the legislative texts supplied by the countries concerned and from those on file in the Legislation Branch, FAO.

The conciseness of presentation, it will be appreciated, is imposed by the complexity of the subject matter. The task has entailed consultation of a vast number of enactments, particularly in the case of those states which have a federal constitution, and a more detailed analysis or fuller commentary would have required a voluminous study. A summarizing approach is more conducive to attaining the primary objective, namely to supply information on water law in the countries of South America.

The politician, the jurist, the planner and the administrator need basic, up-to-date information on legislative systems not their own. The study that follows seeks to facilitate acquaintance with these, encourage comparison and thus contribute to progress in water legislation.

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### INTRODUCTION

- 1. In South America water resources are regionally abundant. Some of the rivers there are the longest, and have the highest volumes of flow, in the world. Water quality is good, and noteworthy gradients favour the harnessing of the resource for energy production.
- 2. On the other hand, the distribution of water over the seasons and in geographical terms is very uneven. There are extensive arid tracts but there are also torrential regime watercourses that wreak havoc in the higher mountain areas. Flooding and erosion result, and recurrent spates place life, property and the works of man in danger.
- 3. In many instances, little attention has been paid to water location, quality and regime, and the hydrometeorological stations are few and far between. Little, too, is known about groundwater.
- 4. The size of the main basins and the navigability of the rivers had the result of allowing European civilization and trade to penetrate to the heart of this sub-continent, which paved the way, however, to the tensions that erupted during last century in international conflicts. But in South America there was no building of inland navigation ways such as those connecting up the river systems of North America or Europe. Many a river port now stands idle and public investment in this sector has increased relatively little.
- 5. Approximately half of the population of South America has piped drinking water supply, though this does not mean that the urban dwellers have been able to receive water in the quantity and of the quality, and the sewerage services, demanded by modern hygiene. Progress in technology and increased capital outlay in the sector in the last few years should make it possible to supply the water needed to remedy any shortcomings in this sense. At the same time, there is a challenge in the problems created by the impact of the major concentrations of population and industry on water resources.
- 6. In much of South America agricultural production is not possible without irrigation. The limiting factor is not, however, any shortage of water in overall terms but the vast human resources required and the slow pace of development.
- 7. The increasing demand for electricity, stimulated by progressively higher oil prices, makes for the feasibility of hydroelectric schemes. Electric power produced by such means thus becomes the driving force in the development of water resources in South America and an instrument of integration and expansion. The countries have grasped this point and are planning or building dams which are among the largest in the world. However, this is only the beginning of harnessing the hydroelectric potential. The siting of the very large hydroelectric installations in international basins gives rise to diplomatic and political problems, and much effort is spent on seeking solutions for these.
- 8. The industrial use of water is beginning to compete with that needed for population centres and, in some cases, with agriculture. The main limiting factor however is the impact of industrial use on the environment. This, together with the waste that the population discharges into the water, limits re-use potential.
- 9. The law has for many years past been heavily protective of mining uses in South America but latterly attempts have been made to circumscribe the the deleterious effects of that activity on the environment.

- 10. Nowadays the tendency is to plan water resource development within the context of basin planning in such a way as to ensure that a whole series of needs can be catered for. At the same time, the uneven benefits offered by the respective purposes and the disparate interests promoting alternative development options lead to an expansion in some uses to the detriment of others and to problems of competition between different geographical areas for a share in the advantages which the national laws and negotiation, as the case may be, seek to solve.
- 11. In short, the overall availability of water should suffice to satisfy abundantly the present and future needs and future development and welfare of the peoples of South America, even taking population growth into account. Technology and planning are able to solve the problems of uneven distribution in time and place as well as problems of resource deterioration.
- 12. Prospects such as these have touched off profound interest in the study and development of water law at both national and international levels. Practically every country in the Region has introduced new water laws and water codes in recent years, while those countries which have not are considering doing so. At the international level a number of treaties 1/ have been concluded on this subject and the views of South American countries are repeatedly made known in the various international forums.
- 13. Legislation in most of these countries takes its origin in the Ordinances of the Spanish Crown issued for all its possessions in South America taken together. While these enactments emphasize the public interest and the State's decision-making powers, a movement toward codification in the 19th century was responsible for the introduction into many countries of the privatizing tendencies of the Code Civil of France. Taking our stand at the present point in time we can appreciate that the doctrinal influence of Spanish laws introduced in 1866 and 1879, the 1933 Consolidated Text of Italian laws and the diffusion of legislative models as promoted by the international organizations and the meetings of experts in water law 2/ have expanded the range of options open to the lawmaker. It may seem strange at first sight that this fact did not give rise to major differences in legislation. That the contrary is true is explained by the fact that the problems that lawmaking was called upon to deal with were similar in all the countries concerned.
- 14. All these circumstances are conducive to an approximation between the laws of the Latin-American countries and those of other countries whose judicial traditions derive from other sources.
- 15. At first legislation promoted expansion in water use in that it offered the user certainty before the law and a freedom of action by assigning to him prerogatives that were the same or almost the same as those associated with ownership. In order to rationalize the use and the sharing out of water, the authorities might simply regulate individual rights without, however, diminishing them in any way. Anything done by them ultra vires would be overturned by the courts.
- 16. Again, the means of constituting or exercising these rights were very simple. The law assigned them to the owners of certain landed property or to a given class of users or, again, would allow their exercise over specified phases of the hydrological cycle. And such a system called for only a very simple administrative organization for its application.

A list of these will be found in Systematic Index of International Water Resources Treaties, Declarations, Acts and Cases by Basin, Legislative Study No. 15, FAO, Rome, 1978.

See Minutes and Proceedings of the International Water Law Association in <u>Annales Juris Aquarum</u>, Vol. I, Buenos Aires, 1968 and <u>ibid</u>., Vol. II, Caracas, 1976; also the proceedings of the meeting on <u>Global Water Law Systems</u>, Radosevich, Giner, Daines, Skogerboe and Vlakos, Valencia, 1975, and published by Colorado State University.

- 17. The different criteria appealed to for assessing the "value" of the different uses of water over time and geographically led to the passing of special laws for the respective uses or situations and to the laying down of priorities in the water codes and, again, to assigning the administrative management of the various uses and problems to distinct technical bodies, some of which would be centralized, while others would be found at different levels of government.
- 18. This meant that water rights assigned to individuals committed more of the resource in certain areas than was actually available and that more water was abstracted than was compatible with reasonable resource conservation. Again, basin management conducted from different centres of decision and under legal rules which were formally in conflict with each other resulted in unjustified delays in the implementation of plans, dispersion of the basic information necessary for planning water resources development and, in the last resort, tension between sectors and between regions, all of which stood in the way of an integrated use of water.
- 19. In order to obviate these negative situations, Governments began to assume wider powers where water was concerned, this circumstance in turn rendering necessary a reform of juridical and administrative systems. The reforming process went forward at a different pace in different countries and at different times but the overall trend converged on similar objectives 1/.
- 20. Governments have intensified the work of assembling statistical data needed for efficient use and conservation of the resource, and strengthened the relevant administrative departments.
- 21. They began with planning water resource development sometimes on a region-wide basis, sometimes at basin or part of basin level, although the general rule was to plan in nation-wide terms. In one or two cases boards have been set up for the integrated development of a basin or part thereof but more commonly institutions were created with a research and advisory role thus facilitating their planning.
- 22. They have extended public ownership to all water resources (Chile, Colombia, Ecuador, Peru).
- 23. They have limited or abolished altogether the cases where the law had permitted an unrestricted use of water (Chile, Ecuador, Peru).
- 24. They have restricted the possibilities of constituting rights over water where quantity, quality and availability in excess of needs might be compromised (Colombia, Peru, Venezuela).
- 25. As a general rule, they have restricted individual rights in order to secure the protection of water and basins.
- 26. They have taken the initiative in planning, installing and operating hydraulic works, and levied contributions on beneficiaries for these purposes.
- 27. They have concentrated, or coordinated, the activities of various administrative bodies where water development and conservation are concerned. Thus, Argentina has set up an Under-Secretariat for Water Resources, Colombia an Institute for the Development of Renewable Natural Resources, Ecuador its Water Resource Institute, and Bolivia the National Directorate of Water Resources.

Valls, Mario F. "La estructura jurídica y administrativa como instrumento de la política del agua en América Latina", Annales Juris Aquarum, Vol. II, pp. 226/249, Caracas, Venezuela, 1976.

- 28. The powers vested under respective constitutions in the central government, together with the latter's greater potential for financing, installing and operating hydraulic works, have provided for coordinating its action with local governments. In Argentina, for example, these powers have been further underpinned by a variety of agreements between the two levels of government and between the provincial governments themselves.
- 29. On the other hand, the present trend toward assigning law and administration a more comprehensive scope taking in, say, the region, energy, all natural resources or the environment is a challenge to the approach discernible in the preceding remarks whereby the hydrological cycle is seen as the direct object of concern. There is a convergence of views in this sense, which is making itself felt at the international level, too.
- 30. The people in question have made plans for agreements and sought similarities between countries in a desire to arrive at an integrated and harmonious development of international water resources.
- 31. The countries of South America have made it their aim, through their regional arrangements, to evolve general principles of continent-wide validity geared to the strengthening and the broadening of those proposed in the Declaration of the Seventh Inter-American Conference held at Montevideo in 1933 which did not achieve the status of agreements of general scope.
- 32. What did emerge from that Conference, rather, were agreements concerning specific water resources, and works or activities likely to have an effect on those resources, and agreements providing for systems of coordination for the surveying and development of the major international basins.
- 33. The international commissions set up to plan the development of a basin or part thereof elaborated plans which are nowadays to be found in course of implementation. Joint bodies of two nations together are building vast hydroelectric and multipurpose schemes in the of the Río de la Plata basin.
- 34. The process of legislation and administrative change where water is concerned continues in South America. The objectives are broad and complex, since they are expected not only to reconcile the interests of the respective regions and economic and social sectors concerned with water but also to embody a correlation between the decisions that affect this particular resource and those taken at a more general level or, say, to protect the environment, or in matters of international policy or, again, in any other matters such as transport, energy, defence, public health or development.
- 35. There are grounds for hoping that the legislative reform may gather momentum both as a means of bringing about a reconciliation of divers interests and because once one objective is attained there always emerges another which the legislative structure will have to adapt itself in order to pursue.
- 36. Only a scrupulously contrived juridical and administrative technique and a prudent application of the principles adopted can ensure that those, perhaps divergent, interests and the plurality of purposes pursued by government action will come together in an integrated and harmonious management of water resources and of the basin where they are to be encountered.

### ARGENTINA

### I. INTRODUCTION

Argentina occupies the southern extremity of South America. To the West, the Andes Cordillera separates the country from Chile. While the highest contours constitute the water divide, there are several rivers and lakes in Argentine territory which have their outlet in the Pacific Ocean, and others, originating or situated in Chile, which empty into the Atlantic. The rivers Pilcomayo, Paraná, Iguazú, San Antonio, Pepirí Guazú, Uruguay and the Plate mark the country's boundary with Paraguay, Brazil and Uruguay. All the rivers named belong to the Plate catchment basín, into which in any case most of the water traversing Argentina flows.

Precipitation has an irregular distribution with maxima averaging 550 mm/year. Rainfall is heaviest and most regular in the Pampas and in the North East of the country. In the remaining two thirds of the territory the climate is arid or semi-arid.

In the main or trunk sectors of the rivers of the Plate basin, summer drying impedes navigation, while the spates of other seasons cause flooding. In the upper courses of the mountain rivers summer drought reduces to very low level the availability of water and, again, winter spates cause serious damage. Increasing resort to groundwater has led to drawdown at many points, including the coastal areas where saline intrusion places several cities in jeopardy.

Water quality is generally good. In certain areas groundwater has a high concentration of salts and minerals. In the vicinity of population centres, pollution is beginning to create problems.

The land area of Argentina is 2 791 800  $\rm km^2$ , with a population of 26 million. Some 1 200 000 ha are under irrigation.

The territory which is Argentina to-day was originally colonized by Spain and organized as a Viceroyalty in 1776. Home rule was granted in 1810, and the country declared its independence in 1816, later (1853) to organize as a Federal Republic. Toward the end of the last century structural reforms made for expanded agricultural production. A dense railway network was laid out converging on the port of Buenos Aires and, to a lesser extent, on the river litoral. Population and capital concentrated on the hinterland of these ports, with a concomitant market expansion in exports of raw materials. About the same time irrigation works were installed in the arid and semi-arid regions together with up-to-date systems for potable water supply and the disposal of effluents from the population centres.

From the thirties of this century on, there has been a major expansion in the road network. Hydroelectric schemes have been put in hand. Industrial development, taking place predominantly near the main rivers, has given rise to problems of water quality and its expansion in the direction of the interior also comes up against those of quantitative availability. To meet this latter difficulty many miles of supply conduits have been laid out.

In recent years Argentina has initiated surveys for and the construction of multipurpose hydraulic works as joint undertakings with neighbouring States. Among these schemes may be mentioned the Salto Grande project on the River Uruguay and those at Yacretá and Corpus on the Paraná.

### II. LEGISLATION IN FORCE

The federal system of government introduced by the National Constitution assigns jurisdiction and competence in water matters to both the Federal Government and the Governments of the respective self-governing provinces making up the Republic. The principal sources of law, accordingly, are to be classified into national sources, local government sources and interjurisdictional treaties (i.e. between provinces or between the latter and the Federal Government).

### A. National sources of legislation

- 1. The National Constitution, promulgated in 1853, together with the amendments of 1860, 1866, 1898 and 1957. The basic principles embodied here provide the framework for the entire legal system of Argentina. However, it affects water only incidentally, when it affirms the freedom of navigation and brings this activity within the purview of federal jurisdiction (Arts. 11, 12, 26 and 67(9)) and when it empowers the National Congress and the provincial legislatures, without distinction, to promote the construction of ship canals and the exploration of the inland reaches of the country's rivers (Arts. 67 and 107);
- 2. the Civil Code, promulgated by Act No. 340, of 29.IX.1869, and amended where water is concerned by Act No. 17.711, of 22.IV.1968. The Code brings practically all water under the public domain (Arts. 2340, 2635 and 2637), defines the line of the banks (Art. 2577), determines the juridical effect of modifications to land caused by the natural action of water (Arts. 2572-2586), defines the towpath (Arts. 2639 and 2640), prohibits specified impounding and diversion operations (Arts 2642 and 2646-2653), states the law governing servitudes (Arts. 3002-3107) and assigns to administrative law all matters having to do with the construction of dams on rivers and streams (Art. 2465) 1/;
- 3. the Mining Code. This brings endogenic steam under the same heading as minerals for concession granting purposes (Decree-Law No. 2559/57), allows the use of naturally occurring water for mine working needs (Art. 48), places restrictions on mining operations likely to damage hydraulic installations (Arts. 31-34) and on hydraulic works likely to cause damage to mines (Art. 62) and prescribes rules governing the extraction of mineral-bearing sands from the beds of rivers (Arts. 69, 72 and 79);
- 4. the Penal Code. This makes it a punishable offence to divert water illegally or, in specified cases, to contaminate water (Arts. 182, 186, 188, 190, 194-196 and 198-201);
- 5. the Act known as the National Irrigation Act, No. 6546, of 28.IX.1909. This enjoins upon the National Executive to plan and install irrigation works in those provinces which agree to this scheme and in the National Territories;
- Decree-Law No. 6767, of 24.III.1945 (converted into Act No.13.030). This assigns
  powers to the National Executive to make rules governing inter-province waters;
- 7. the Federal Electric Energy Act, No. 15.336, of 15.IX.1960. This contains rules governing hydroelectric schemes coming under national jurisdiction;
- 8. the Forests Act, No. 13.273, of 30.IX.1948. This contanins rules governing forest stands that provide protection for basins (Section 8);
- 9. Act No. 2797, of 2.IX.1891. This prohibits the dumping of industrial residues and sewage in rivers coming under the jurisdiction of the Republic;
- 10. Special Act No. 20.481, of 22.VIII.1973. This makes it a punishable offence to cause the contamination of water with hydrocarbons;

- 11. the Hydrocarbons Act, No. 17.319, of 23.VI.1967. This contains rules governing underwater activities, servitudes and water conservation;
- 12. Act No. 13.577, as amended by Act No. 20.324, of 27.IV.1973, instituting the National Sanitation Works Company. This prescribes rules governing domestic and town water supply and sewerage provided by this Company in areas under national jurisdication and that of the provinces that have agreed to the scheme;
- 13. Act No. 11.709, of 18.IX.1933. This makes it obligatory to install fish ladders in dams on rivers under national jurisdiction;
- 14. Decrees Nos. 9762/64, 469/73 and 2629/73 instituting a national drinking water supply programme for rural population centres. The programme is implemented in those provinces accepting it;
- 15. the Navigation Act, No.20.094, of 15.1.1973. This brings under national jurisdiction water and public works serving shipping and inter-jurisdiction transit by waterway.
  - B. Provincial sources of legislation

The most representative local enactments are the following:

- (i) Province of Buenos Aires
- 16. The Rural Code, promulgated by Act No. 7616, of 10.VII.1970. Book III prescribes rules governing the agricultural use of water and the atmosphere;
- 17. Act No. 5262, of 14.VIII.1948 The Irrigation Act (this was repealed in part by the Rural Code);
- 18. Act No. 5975, of 20.XI.1958 The Act to provide for the protection of sources, watercourses and receiving bodies of water;
- Act No. 6245, of 3.II.1960, to create the Valle Bonaerense del Río Colorado Development Corporation;
- 20. Act No. 6253, of 19.II.1960, relative to the conservation of naturally draining water;
  - (ii) Province of Catamarca
- 21. Act No. 2577, of 22.V.1973, to approve the Water Code;
  - (iii) Province of Córdoba
- 22. Act No. 5589, of 21.V.1973, to approve the Water Code;
- (iv) Province of Corrientes
- 23. Act No. 3066, of 10.IX.1972, to approve the Water Code;
  - (v) Province of Chaco
- 24. Act No. 666, of 26.VII.1965. This Act makes it obligatory to report any tapping of groundwater;
  - (vi) Province of Chubut
- 25. Constitution. Chapter III lays down rulemaking principles where water is concerned;