PRINCIPLES OF LAW GOVERNING THE USES OF INTERNATIONAL RIVERS AND LAKES

Resolution Adopted by the Inter-American Bar Association at its Tenth Conference Held in November, 1957, at Buenos Aires, Argentina, together with Papers Submitted to the Association.

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[APROBADA POR UNANIMIDAD POR LA COMISION I DE LA X CONFERENCIA INTERAMERICANA DE ABOGADOS, Y APROBADA SIN OPOSICION POR EL CONSEJO EJECUTIVO Y LA SESION PLENARIA DE LA INTER-AMERICAN BAR ASSOCIATION.]

LA X CONFERENCIA DE LA INTER-AMERICAN BAR ASSOCIATION

R E S U E L V E

1.—Que los siguientes principios generales que forman parte del derecho internacional actual, son aplicables a todo curso o sistema de ríos o lagos (aguas no marítimas) que atraviese o divida los territorios de dos o más estados; dicho sistema se llamará en adelante "sistema de aguas internacionales:"

1. Cada Estado que tenga parte de un sistema de aguas internacionales bajo su jurisdicción, tiene el derecho de aprovecharlo, siempre que dicho aprovechamiento no afecte adversamente el igual derecho de los estados que tienen otras partes del sistema bajo su jurisdicción.
2. Los Estados que tengan parte de un sistema de aguas internacionales bajo su jurisdicción tienen el deber, en aplicación del principio de igualdad de derechos, de reconocer el derecho de los demás Estados que tienen jurisdicción sobre una parte de ese sistema, de compartir los beneficios del sistema tomando como base el derecho de cada estado al mantenimiento del *status* de utilización actual y el aprovechamiento, según las necesidades correspondientes de los estados repectivos de desarrollos futuros. En caso de que no puedan ponerse de acuerdo, deberían someterse sus diferencias a una corte internacional o a una comisión de arbitraje.

3. Los Estados que tengan parte de un sistema de aguas internacionales bajo su jurisdicción están en el deber de abstenerse de realizar cambios en el régimen existente que pudiesen afectar adversamente el aprovechamiento por otro u otros estados con jurisdicción en ese sistema a menos que lo hagan conforme: i) a un acuerdo concertado con el o los estados afectados o, ii) a una decisión de una Corte Internacional o una Comisión de Arbitraje.
4. Los principios que anteceden no alteran la norma de derecho internacional público según la cual si por la naturaleza del territorio bajo la jurisdicción de un estado sobre el cual corren las aguas de un sistema internacional se deriva algún beneficio para dicho estado, tal beneficio sólo aprovechará a ese estado, quedando entendido que el aprovechamiento se hará conforme a lo establecido en el principio tercero.

II.—*Recomendar* que se establezca una comisión permanente de la Inter-American Bar Association con el objeto de profundizar el examen de los principios jurídicos generales, en esta materia la que deberá mantener correspondencia con otras asociaciones y organizaciones internacionales (UN, OEA, etc.) que se consagran al estudio de los principios jurídicos que gobiernan los usos de los ríos internacionales.

III.—*Recomendar* que esta comisión permanente estudie y prepare para la XI Conferencia Interamericana de Abogados, un dictamen en el cual deberá considerar entre otros temas que ella juzgue de interés los siguientes:

1. El problema de los posibles derechos de los estados no ribereños que puedan tener intereses vinculados a un sistema de aguas internacionales;
2. El problema de la indemnización y prevención de actos ilegales en el uso de aguas de sistemas internacionales que pudieran causar daños irreparables o crear una situación que pudiese poner en peligro el mantenimiento de la paz o amenazarla;
3. El problema de compartir los gastos de funcionamiento, el mantenimiento y el desarrollo del sistema de aguas internacionales;
4. Los problemas de contaminación de las aguas y el control de las inundaciones;
5. El problema de la prioridad de los diferentes usos de las aguas de un sistema de aguas internacionales y su relación con sus características específicas;
6. El problema de las diferencias de tratamiento jurídico entre el derecho de dominio y el derecho de uso de un sistema de aguas internacionales;
7. La posibilidad de sistematizer las reglas prácticas puestas en vigencia por los Estados al solucionar el mejor aprovechamiento de los sistemas de aguas internacionales o interestaduales;
8. Las diferencias que pueden surgir en la aplicación de los principios generales del derecho internacional en los sistemas de aguas internacionales según sean limítrofes o sucesivos;
9. La posibilidad de crear comisiones y tribunales generales y/o regionales para facilitar el aprovechamiento de las aguas y la solución de conflictos relativos al régimen de los sistemas de aguas internacionales.

IV.—*Requerir* de esa comisión que se encargue de recopilar, clasificar y analizar los antecedentes en todas partes del mundo que evidencien las prácticas aceptadas como derecho que rigen los usos de los ríos internacionales.

V.—*Recomendar* que los estados que tengan interés en un sistema internacional de aguas deben, lo antes posible, intervenir en la reunión y el intercambio de la información física y económica necesaria para proyectar y realizar el aprovechamiento racional de aquellas.

TENTH CONFERENCE OF THE INTER-AMERICAN BAR ASSOCIATION

Buenos Aires, November 19, 1957

COM. I. PUBLIC INTERNATIONAL LAW.
SEC. A. GENERAL PROBLEMS.
TOPIC 4. PRINCIPLES OF LAW GOVERNING USE OF INTERNATIONAL RIVERS.

RESOLUTION

[ADOPTED BY UNANIMOUS VOTE BY THE FIRST COMMITTEE OF THE TENTH CONFERENCE, AND APPROVED WITHOUT DISSENT BY THE EXECUTIVE COUNCIL AND THE PLENARY SESSION OF THE INTER-AMERICAN BAR ASSOCIATION.]

THE TENTH CONFERENCE OF THE INTER-AMERICAN BAR ASSOCIATION

RESOLVES

I. That the following general principles, which form part of existing international law, are applicable to every water-course or system of rivers or lakes (non-maritime waters) which may traverse or divide the territory of two or more states; such a system will be referred to hereinafter as a "system of international waters":

1. Every state having under its jurisdiction a part of a system of international waters, has the right to make use of the waters thereof insofar as such use does not affect adversely the equal right of the states having under their jurisdiction other parts of the system.
2. States having under their jurisdiction a part of a system of international waters are under a duty, in the application of the principle of equality of rights, to recognize the right of the other states having jurisdiction over a part of the system to share the benefits of the system taking as the basis the right of each state to the maintenance of the *status* of its existing beneficial uses and to enjoy, according to the relative needs of the respective states, the benefits of future developments. In cases where agreement cannot be reached the states should submit their differences to an international court or an arbitral commission.

3. States having under their jurisdiction part of a system of international waters are under a duty to refrain from making changes in the existing regime that might affect adversely the advantageous use by one or more other states having a part of the system under their jurisdiction except in accordance with: (i) an agreement with the state or states affected or (ii) a decision of an international court or arbitral commission.

4. The foregoing principles do not alter the norm of international law that if the territory over which flow the waters of an international system is of such a nature as to provide a particular benefit, that benefit may be enjoyed exclusively by the state having jurisdiction over that territory, it being understood that such enjoyment will be in conformity with principle 3.

II. That a permanent committee of the Inter-American Bar Association be established to examine further the general juridical principles in this field, which commission should correspond with other international associations and organizations (U.N., O.A.S., etc.) devoting their attention to the study of the principles of law governing the uses of international rivers.

III. That this permanent committee study and prepare for the Eleventh Conference of the Inter-American Bar Association a report dealing, among other matters that it considers of interest, with the following:

1. The question of the rights, if any, of non-riparian states which may have interests dependent upon a system of international waters.
2. The question of indemnification and of preventing unlawful acts in the use of waters of international systems that might cause irreparable damage or might even lead to a situation likely to endanger the peace or constitute a threat to the peace.
3. The question of sharing costs in the operation, maintenance and development of a system of international waters.
4. The questions of pollution and flood control.
5. The question of the priorities as between different uses of the waters of a system of international waters and the relation of these priorities to the specific characteristics of the system.
6. The question of the differences in legal treatment of the right of dominion over as distinguished from the right to the use of a system of international waters.

7. The possibility of systematizing the practical rules put into effect by the states to achieve the most advantageous use of systems of interstate or international waters.
8. The difference, if any, arising in the application of general principles of international law as between international boundary water systems and successive water systems.
9. The possibility of creating general and/or regional commissions and tribunals in order to facilitate the most advantageous use of the waters and the solution of conflicts relating to the regime of systems of international waters.

IV. That the Committee be requested to collect, classify and analyze the precedents from every part of the world evidencing practices accepted as law governing the use of international waters.

V. That states with an interest in an international water system ought to participate, as soon as possible, in the collection and exchange of physical and economic data essential for the planning and realization of the rational use of the waters.

INTER-AMERICAN BAR ASSOCIATION

BUENOS AIRES CONFERENCE, 1957

PRINCIPLES OF LAW GOVERNING USE OF INTERNATIONAL RIVERS

By JOHN G. LAYLIN *

I welcome this opportunity to discuss with you the work that is being done in developing statements of the principles of law governing the uses of international rivers. One of the greatest contributions to this area of the law was made in the neighboring city of Montevideo. Much of the source material of law has been made in connection with the river that serves both Buenos Aires and Montevideo. While my own experience has concentrated on water disputes in Asia and I am a recent-comer in the study of the legal precedents in South America, I am impressed with the progress that has been made here and with the benefit that the rest of the world would derive from a study of the law by this Association.

In this paper I put forward three questions:

1. Should this Association take up the study of the law governing international rivers?
2. Is there law now existing binding on states apart from treaties affecting the use of international rivers?
3. Are certain propositions that I shall put forward a sound starting point for formulating a statement of the collective opinion of our membership?

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* The writer is a member of Covington & Burling of Washington, D.C., but the views expressed are, of course, his own as an individual member of the Inter-American Bar Association.

This paper was prepared for the Tenth Conference of the Inter-American Bar Association held at Buenos Aires, Argentina, November 14-24, 1957. The writer gives grateful acknowledgement to his associates, Messrs. Donald E. Claudy, James R. Patton, Jr. and Rinaldo L. Bianchi for their assistance in the preparation of this paper, its footnotes and appendices.

In the footnotes and appendices I discuss a number of subsidiary questions which have been a matter of interest in this and the Eastern hemisphere.

I

Should this Association take up the study of the law governing international rivers?

May I mention some reasons why I think the Association ought to concern itself with this question.

1. The phenomenal pace at which the population of the world is increasing is taxing our limited fresh water resources. While it took 1,750 years after the birth of Christ for the population of the world to double, it doubled again in the next 140 years. In half that time it will have doubled once more. This accelerating population increase is creating problems in many fields of concern to the lawyer, but in none more than in the field of water law. There are many studies being carried on at the local and national level. There are a number at the international level.[1] This Association will, I believe, want to keep abreast with and contribute to these.

2. Our growing ability to control river systems with storage dams and great diversion canals—taken together with the growing demands on the limited water resources—has created the possibility of conflicts of world wide importance.[2] Conflicts over water are, of course, not new. One reads of battles fought in very ancient times over interferences in the Middle East with the natural flow of water supplies for irrigation. According to de la Pradelle, the twelve ancient Greek states which founded the Amphictiony found it necessary to make a treaty by swearing at Delphi:

> "Je jure de ne jamais détruire aucune des villes du corps des Amphiction et de ne pas détruire le lit ou empêcher l'usage des leurs eaux courantes ni en temps de paix, ni en temps de guerre . . . ." [3]

3. Scattered over the globe are disputes over water likely to endanger the peace. I am at present acting as counsel for Iran and Pakistan in water disputes these countries have with Afghanistan and India, respectively. The seriousness of these disputes cannot be overestimated.[4] There are no disputes in our hemisphere, but there are areas of potential dispute, even here.[5] There is, for instance, agitation in the United States and Canada over the future development of the Columbia river system. If the governments involved were to espouse the positions taken by the extreme spokesmen for the local interests, bitterness could be created along a frontier traditionally one of the most peaceful and law abiding.[6] Elsewhere in our hemisphere, as the advances of technology and the expanding populations impose greater demands on our rivers, we can expect those demands to become competitive—and hence potential disputes. I submit that it is the duty of lawyers to assist in every possible way the efforts of statesmen who will seek to avoid such disputes.

4. Because of the foregoing there has been a great upsurge of interest in the study of the customary international law governing the uses of international rivers. Several agencies of the United Nations are studying this matter. The Secretariat has stated that the United Nations would be pleased if non-profit, non-governmental agencies would interest themselves and undertake activity having to do with establishing procedures for sharing waters of international streams.[7]

The International Law Association at its Conference in Dubrovnik last year adopted as a sound basis for further study a statement of principles recommended by its committee set up at the 1954 Conference of the Association at Edinburgh.[8] The Institut de Droit International has set up a commission to study and recommend a resolution and is presently considering a scholarly report by its rapporteur, Monsieur Andrassy of Yugoslavia.[9] The American Society of International Law included the subject on the agenda of its meeting last spring in Washington. Several regional groups are actively studying the question; one consisting of international lawyers dealing with the matter in Scandinavia, another consisting of such lawyers in Canada and the United States. The Mexicans have been invited to join this latter group.

Pledged as the members of the United Nations are to maintain peace with justice, this Association should lend its support to the finding and setting forth of those underlying principles of international law common to all nations. Our interests are sufficiently diverse and our conflicts have been so successfully resolved that together with certain other regions we can bring to this subject an objectivity that we once ourselves lacked, but now happily have achieved.

5. The source material of international law for the International Court of Justice, set out in Article 38 of the Statute, includes "the teachings of the most highly qualified publicists of the various nations." [10] Not many of us can aspire to that, but we all may contribute to what the most highly qualified may conclude and pronounce. The unanimous or even near-unanimous opinion of the lawyers of this Association is cer-

tainly not without weight. In the *Lotus* case, Judge Altamira observed that there are "moments in time in which the rule, implicitly discernible, has not as yet taken shape in the eyes of the world, but is so forcibly suggested by precedents that it would be rendering good service to the cause of justice and law to assist its appearance in a form in which it will have all the force rightly belonging to rules of positive law appertaining to that category." [11]

As H. A. Smith, author of the most quoted work on the economic uses of international rivers, stated in a recent meeting in Geneva: the exposition of customary law is of necessity behind the times and it is for us to bring it up to date. It is not that we make law, it is that we give modern expression to the law. If I understand correctly, one of the purposes and functions of this Association, is to give modern expression to important fields of the existing law. I submit that international law, as applied to those common resources that are vital to those who share them, calls for modern expression by this Association as well as by the International Law Association and the Institut de Droit International.

The lawyers in this hemisphere are peculiarly qualified to contribute because of the rich experience embodied in the treaties between the various American states, the Declaration of the VII Inter-American Conference of 1933, the Regional Conference of the "Plata" river system of 1941, the recent technical studies for efficient exploitation of common rivers on an international scale, and the happy history of the successful solution of potentially dangerous water disputes.

In an exchange of notes in the preparation of material on which the International Law Association acted at its Dubrovnik Conference, one of the members of that Association commented, "regarding South America very little information is available regarding the few treaties dealing with water problems that exist in that region." [12] I state with shame that I am co-signatory to a document that included "we will agree . . . that the evidence other than the foregoing of the custom accepted as law is, in South America, meager." [13] May the appendices and footnotes to this paper serve as the ashes that I put upon my head.

The source material in this hemisphere for customary international law that has existed, much of which has come to my own attention for the first time while preparing this paper, is of the richest. We owe it to international lawyers the world over to collect, correlate, sift and analyze this material. This must be a cooperative effort in which I hope those lawyers who

have participated in the preparation of the numerous treaties dealing with international law, will participate.

You appreciate, I am not proposing merely a compilation of Western hemisphere treaty provisions; that would be of statistical value only and would take us merely through the first stage of our work. We have problems ahead in this hemisphere and outside of this hemisphere. There are problems between countries that have not come so far as we. Our function is to act, not as compilators but as lawyers, to distill from what already has been done here and elsewhere the basic principles of customary law that apply apart from treaty. From these a continuing committee of this Association would, in correspondence with other committees, develop refinements that will assist us and others in meeting what may be predictable but are not yet immediate problems.

In urging the Association to take on a study of the law governing the uses of international rivers, I would like to stress that desirable as it is to make recommendations as to what further rules might be adopted, the important task at hand is to distill and set out, even in the most modest but essential terms, what the basic underlying and fundamental principles are that bind every nation apart from treaty under existing international law.

This leads me to my second question.

II.

> Are there any principles binding upon sovereign states, apart from treaty, that limit their right to do as they choose with waters while within their boundaries?

There are a few writers even today who maintain that while a state should in a spirit of good neighborliness refrain from actions on an international river harmful beyond its borders, it has under existing international law the legal right to do as it chooses.[14] To sustain that thesis they take for their definition of existing international law a view that is quite at variance with present day thinking and practice. They are driven in fact to the proposition that there is little if any international law except treaty law—that a state is subject to only those obligations that it has explicitly agreed to. Under their view, a new state, until it has negotiated new treaties or adhered to old ones, would have no obligations to the other members of the family of nations.

Those writers cite, in support of their conclusion that a sov-

ereign state may do as it chooses with the waters of an international system, an opinion rendered in 1895 by an Attorney General of the United States and an assertion of right made by Chile in 1923 in a dispute with Bolivia over the waters of the River Mauri. They overlook that these assertions, made in the course of and as a part of negotiations, were not acted upon. They overlook that both the United States and Chile have since abandoned this doctrine of so-called absolute sovereignty.[15] They overlook that the great preponderance of assertion and practice support the contrary view.

What is existing international law? For our purposes, I submit that it consists of those principles and rules that the International Court of Justice would, in the opinion of qualified lawyers in the international field, find to be binding upon the court in pronouncing judgment in a case brought before it. The court has, by agreement of the members of the United Nations who have subscribed to the Court's Statute, instructions as to the source material from which to deduce the principles and rules governing its judgments. The first of these is that grouping of obligations undertaken in agreements between the parties. But this is only the first. There are three other important sources. The second is "international custom as evidence of a general practice accepted as law." The third is "the general principles of law recognized by civilized nations." The fourth is "judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law." [16]

The great body of treaties that have been entered into laying down principles governing the uses of international rivers, while not binding on states not parties to the treaty as a matter of conventional law, nevertheless constitute evidence of the greatest value in the determination of international custom, that is, of practices accepted as law.[17] They frequently constitute a declaration by the parties of their view as to what the international law is. This is not necessarily expressed in the treaty. A notable instance where it is expressed is the treaty of 1905 between Norway and Sweden. Article 2 of that treaty states:

> "In accordance with the general principles of international law it is understood that the works mentioned in Article 1 [diversions, raising or lowering of water levels] cannot be carried out in either state except with the consent of the other, whenever such works, by affecting the water situated in the other state, might result . . . in substantially modifying the waters over a considerable area." [18]

Sometimes it is stated in the course of negotiation that the object of the treaty is to give fulfillment to obligations recognized as binding under international law.

The Foreign Minister of the United Kingdom, while speaking for the Sudan in negotiations with Egypt in 1928, instructed his representatives as follows:

> "The principle is accepted that the waters of the Nile, that is to say, the combined flow of the White and Blue Niles and their tributaries, must be considered as a single unit, designed for the use of the peoples inhabiting their banks according to their needs and their capacity to benefit therefrom; and, in conformity with this principle, it is recognized that Egypt has a prior right to the maintenance of her present supplies of water for the areas now under cultivation, and to an equitable proportion of any additional supplies which engineering works may render available in the future." [19]

Apart from the contents of the treaties the very fact that a multitude of treaties exist which have governed and today govern international rivers where national interests have come into conflict, itself evidences law-creating international custom. The fact that treaties are consensual instruments must not obscure the fact that it is the custom of nations to conclude water treaties when their national interests come into conflict with those of their fellow riparians. These treaties separated though they are in time and in space evidence practices that are fundamentally the same.[20] This is true also as regards the numerous treaties between Latin American countries.[21] In many instances these practices are against the immediate interest of one or more of the signatories. These treaties, when not entered into under duress, give evidence of the recognition of a legal duty.

I need not dwell on the general principles of law recognized by civilized nations. It is abhorrent to any legal system to conceive that authority over a part of an international water system should confer a right to deal with the waters without regard to the adverse effect on others having authority over another part of the same system. There is a rich literature to the effect that there are under existing international law limitations upon what a state may do to a river system that it shares by nature with another state.[22]

The judicial decisions reach the same result.[23] A notable decision at the international level dealt with the parallel problem of air crossing state boundaries. This was rendered by the Trail Smelter Arbitral Tribunal set up by the United States and Canada. After referring to decisions in cases between

states of a federation in the United States and Switzerland, the Tribunal concluded:

> "The Tribunal, therefore, finds that the above decisions, taken as a whole, constitute an adequate basis for its conclusions, namely, that, under the principles of international law, . . . no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another . . . ." [24]

The assertion of an absolute sovereign right to do as it chose with the waters of the River Mauri was repudiated by Chile when it accepted the recommendation respecting that river in the controversy between Chile and Peru.[25] A similar assertion in the opinion of an Attorney General of the United States made in 1895 was repudiated once and for all in the treaty with Mexico of 1945, and in the testimony made by the Government of the United States before the Senate while the latter was considering consenting to ratification. When local interests in the United States opposed consent by the Senate to the ratification of the treaty, they rested their case on the nineteenth century opinion of the Attorney General I have mentioned. Assistant Secretary of State Acheson answered "this is hardly the kind of legal doctrine that can be seriously urged in these times." [26]

Mr. Benedict English, a member of the Department of State Legal Staff, testified:

> "In conclusion, we respectfully submit the following:
>
> "First, the contention that under the Senate reservation to the 1929 inter-American arbitration treaty the United States can properly refuse to arbitrate any matter which it does not desire to arbitrate, is unsound and unsupportable.
>
> "Second, the contention that under that treaty the United States can properly refuse to arbitrate a demand by Mexico for additional waters of the Colorado is, to say the least, extremely doubtful, particularly when the Harmon opinion is viewed in the light of the following:
>
> "(a) The practice of states as evidenced by treaties between various countries, including the United States, providing for the equitable apportionment of waters of international rivers.
>
> "(b) The decisions of domestic courts giving effect to the doctrine of equitable apportionment, and rejecting, as between the States, the Harmon doctrine.
>
> "(c) The writing of authorities on international law in opposition to the Harmon doctrine.
>
> "(d) The Trail Smelter arbitration, to which we referred." [27]

Those few who persist in sustaining the theory that sovereignty carries with it the right to alter an international river while under its control without regard to the consequences to the co-riparians have not, so far as I am aware, ever denied the duty to refrain from polluting the common waters. Members of the Committee of the North American Branch of the International Law Association commenting on this wrote:

> "If it is a wrong to make water undrinkable, is it not a wrong to deprive a neighboring State of any water at all? If it is a wrong to deprive a neighboring State of water to drink, is it not also a wrong to deprive a neighboring State of water to grow food or to turn water wheels to make clothing, or to deprive a State of means of transporting the food and clothing, or to inundate a State by changing the course of the river, or backing up the waters above the border? The latter example enters the area of invasion—not by fire but by flood. Is there not a factual analogy in an invasion—by drought?" [28]

I think we can agree that there are some limitations imposed by existing international law on what a sovereign may do with water while under its authority. Our next task is to derive from the wealth of material what the limitations are. For the moment I would like to pose certain minimal principles which I find are common to the Declaration of Madrid of 1911, the Geneva Convention of 1923, the Declaration of Montevideo of 1933 and a notable pronouncement by a capable commission in the Indus Basin headed by Sir Benegal Rau. The principles adopted at Dubrovnik together with a tentative draft of principles put forward in an as yet unpublished document by Monsieur Andrassy of the Institut de Droit International uphold these minimal principles as well.

III.

If, as I believe, there are limitations under existing international law as to what a state may do when the effect of its action might adversely affect the utilization of the waters by another state, can we from the existing authorities derive principles as to what a state may or may not do?

This question has been answered affirmatively in the Declaration of Madrid, the Geneva Convention, the Declaration of Montevideo, in the Rau Commission's statement of principles

and in the statement of principles of the International Law Association. From these and from treaties and other source material on which these declarations and statements were based, we can, I think, deduce certain principles as to which there is, if not unanimous, at least near unanimous agreement.

There are some inconsistencies between the declarations and statements which I have referred to. For instance, the Rau Commission stated as a principle of universal application that as between projects of different kinds for the use of water a suitable order of precedence might be:

(i) use for domestic and sanitary purposes,
(ii) use for navigation, and
(iii) use for power and irrigation.

I think most students of international law could agree that for some river systems this order of precedence has been accepted, but I doubt if they would agree that it is wise to attempt an order of precedence for all river systems. The principle that would have universal validity would be that the order of precedence should be based upon the relative importance of the different uses to the international community served by the river. On the La Plata river, the Rhine and Saint Lawrence the navigational use is of paramount importance. On the Colorado, Rio Grande and the Indus, irrigation surely comes next after use of water for drinking and domestic purposes. But this is not the time or place to go into specific rules or to conjecture as to matters as to which unanimity has not been reached. I propose here to seek the lowest common denominator, a few modest but well established, fundamental principles of universal validity.

In the propositions that I submit for the consideration of this committee, I shall use the phrase "international water system" to apply to any system of rivers or lakes, any part of which traverses or divides the territory of two or more states.[29]

My first proposition attempts to state positively what a state having authority over a part of an international water system has a right to do.

1. Every state having authority over a part of an international water system has the right to make the greatest possible use of the waters of the system while under its authority insofar as such use does not affect adversely the corresponding right of the other states having authority over a part of the system.

It seems to me useful to have a positive statement. Criticism of some of the earlier declarations and statements has been that they are couched too much in language of what a state may not do. It is important that the partners in an international water system should be free to extract the greatest possible benefit from that system. The only limitation that should be countenanced is that in the exercise of the right to make the greatest possible use of the waters of a system, each state must respect the corresponding right of the other partner or partners in the water system.

The proposition I have just read is not, so far as I am aware, opposed by any precedent or authority although there is language in some of the statements and declarations that would seem to give one or more of the partners in an international river system what in effect amounts to a veto over any changes in the system.

This situation comes about from the fact that clearly the most satisfactory reconciliation of conflicting interests in the use of an international water system is through agreement. This is stressed in the Declaration of Montevideo. But suppose one of the states unreasonably refuses to come to an agreement. Must all development on the river come to a standstill? This leads me to the following proposition.

2. States having authority over any part of an international water system are under a duty to resolve their differences over the distribution of benefits and the maintenance and development of the water system by the peaceful means laid down in the Charter of the United Nations.

It may seem that this is a statement of a truism, and indeed it is, if one agrees that as a general proposition appropriation by one state of more than its share of the benefits of an international river system or failure by it to bear its fair share of the burden of properly maintaining that system has consequences so serious as to be likely to endanger the peace. My next proposition flows from the two I have just stated. It reads:

3. A state having authority over a part of an international water system is under a duty to refrain from producing a change in the existing regime of the system which might adversely affect (at any time to any substantial degree) the utilization of the waters by another state having authority over another part of the system unless in accordance with:

(a)—Agreement with the affected state, or

(b)—The decision of an agreed court or board of arbitration.

We now come to the question: what would be the basis of decision for a court or board of arbitration in resolving conflicts over the proper distribution of the benefits of an international water system? [30] The International Law Association has in one of its principles laid down a number of considerations which, in the opinion of the members, should guide the court or arbitral tribunal. It did not attempt to give predominant importance to one over the other. The Chairman of the International Committee stated to the conference during consideration of the resolution that no significance was to be given to the order in which the five factors contained in the principle were listed. The Committee of the North American Branch has sought to rephrase the resolution in a way which, in the opinion of most of the members, reflected more accurately the state of existing law. They laid down the test that the states should share the benefits of the international water system

> "on a fair and reasonable basis amongst themselves and with non-riparian states that have become dependent upon such waters."

Their statement continues:

> "In determining what is fair and reasonable, account is to be taken of rights arising out of agreement, judgments and awards, and out of established lawful and beneficial uses and of such considerations as the possible future development of a river system, the extent of dependence of each state upon the waters in question, and the comparative social and economic gains accruing, from the various possible uses of the waters in question, to each state and to the entire community dependent upon the waters."

I am a member of the committee of the North American Branch and I do not quarrel with that statement.

Monsieur Andrassy has put forward a somewhat simpler statement in which he speaks of the equality of right; and then explains that equality of right calls for distributing the benefits in proportion to the respective needs of the states. A proposition based on this approach might be stated as follows:

4. States having authority over a part of an international water system are under a duty in the application of the principle of equality of right, to share the benefits of the system on the basis of existing dependence and relative need for further development.

If this Association decides to take up the study of the law

governing international rivers, it might wish to invite its members to suggest improvements and additions to these propositions. By and large I believe that the membership will find these propositions a sound starting point at least from which to formulate a statement of the opinion of the members on the international law existing apart from treaty which the International Court of Justice and other international tribunals would find to be governing in cases coming before them involving international water systems.

FOOTNOTES

1. See Appendix C and the studies cited in note 2 *infra*. Two comprehensive treatises on the subject of international river law may be mentioned as of especial value: THE ECONOMIC USES OF INTERNATIONAL RIVERS (1931), by HERBERT ARTHUR SMITH, professor emeritus of international law in the University of London; and LEGAL ASPECTS OF HYDRO-ELECTRIC DEVELOPMENT OF RIVERS AND LAKES OF COMMON INTEREST (1952; U.N. Document E/ECE/136), by M. PIERRE SEVETTE, Chief of the Power Section, Power and Steel Division of the Economic Commission for Europe. These two works, because they deal comprehensively with the subject of international river law, will be referred to repeatedly in this paper and will, for convenience, be cited merely as "Smith" and "ECE Report", respectively.

2. Technological advances in the last century have brought to prominence the dependence upon river supplies for industrial and agricultural ends, and undermined the soundness of the traditional concept of the supremacy of navigational uses. The following studies indicate that the same historical phenomenon is taking place in Latin America: VOLPI, UTILIZACION DE RIOS INTERNACIONALES PARA LA PRODUCCION DE ENERGIA HIDROELECTRICA Y OTROS FINES INDUSTRIALES O AGRICOLAS (Consejo Interamericano de Comercio y Producción, Montevideo, 1946), and the projects and reports listed in VOLPI, *id.* at 23. PLAN DE ELECTRIFICACION DEL PAIS, (Empresa Nacional de Electricidad S.A. Santiago de Chile, 1956, 2a public., at 88). INFORME ANNUAL AL CONSEJO ECONOMICO SOCIAL CORRESPONDIENTE AL PERIODO 15-V-1956—29-V-1957 (Comisión Económica para América Latina, Naciones Unidas (N.U. Cepal), (Doc. No. E/CN: 12/451) at 144) TRANSPORTE Y DESARROLLO ECONOMICO, SISTEMA DEL RIO DE LA PLATA, (Conferencia Económica de la Organización de los Estados Americanos (C.I.E.S.), Julio 1957).

3. De La Pradelle, *Les Rapports de Voisinage et l'Aménagement Industriel des Eaux Frontières,* REVUE DE DROIT INTERNATIONAL 1057 (France 1927). Navigation was the only matter of real international concern to European authors until relatively recent times; in Europe, therefore, the law relating to rivers as avenues of trade or transportation across national frontiers has a much longer and mature history than that governing other uses of the waters. Nevertheless from 1785 to 1873 the Low Countries entered into a series of treaties concerning other uses of waters of international interest. (Smith, at 159-165). But in some other parts of the world irrigation has been of paramount importance since antiquity.

With the advent of the technological era it became possible for one state to affect substantially the availability of water supplies of other states. At this point conflicts of interest arose which gave impulse to a great treaty-making activity. Negotiations have been carried on periodically since 1891 in order to assure the regular supply of the Nile in Egypt from its tributaries. A treaty regulating rivers of common interest between Sweden and Norway dates back to 1905, and the first treaty between the United States and Mexico goes back to 1906. (Smith at 166-168). More than one hundred treaties or other international agreements are in force today in different parts of the world. Smith in Appendix I, abstracts or summarizes 51 treaties and other international agreements, from 1785 to 1930. The ECE Report (at 95-152) summarizes some of the treaties listed by Smith and adds about 40 other treaties and agreements. An extensive digest of water treaties is to be found in BERBER, DIE RECHTSQUELLEN DES INTERNATIONALEN WASSERNUTZUNGRECHTS at 34-94 (Munich, 1955). A further collection of treaties on this subject, in one part of the world, is found in Hirsch, *Utilization of International Rivers in the Middle East,* 50 AM. J. INT'L. L. 81 (1956). These treaties supply the most significant raw material for the study of the practice of states.

After the first world war the traditional priority of navigational uses of rivers began to lose its appeal. Quint writes that in the documents preparatory to the General Conference of Communications and Transit which was held at Geneva in 1923, and which dealt with the problem of uses of rivers, it was expressly stated: "en ce qui les concerne [navigable waters] la priorité absolute de la navigation ne peut plus être toujours admise; des cas doivent être prévus ou des travaux seront licites, qui cependant portent atteinte a la facilité de la navigation." Quint, *Nouvelles Tendences dans le Droit Fluvial International,* REVUE DE DROIT INTERNATIONAL ET DE LEGISLATION COMPAREE 325 (France 1931), where the author quotes from LIVRE VERT, DOCUMENTS PREPARATOIRES A LA CONFERENCE GENERALE DES COMMUNICATIONS ET DU TRANSIT.

Few authors had dealt with the problems of non-navigational uses of international rivers until after the first world war, but the frequency of publications in this area is steadily increasing. The ECE Report in a section entitled "The Authors" reviews (at 51-68) the writings of some thirty scholars, mostly twentieth century writers.

4. A brief account of some of the most serious disputes follows:

The Indus River Basin Dispute. The Indus system of rivers irrigates more land than is irrigated in all the United States, yet there is still more fertile land in the Basin than water to irrigate it. There are more mouths to feed than food. At Partition approximately 37 million acres received irrigation from the Indus system of rivers. Of this total 31 million acres lie in West Pakistan—an acreage almost five times that irrigated from the Nile River and 35 percent larger than the total area irrigated in the United States. An additional 46 million acres within the Indus Basin are cultivable—but remain to be irrigated. Taking the low rainfall into account, the water required to raise crops on this land would exceed the total annual flow of the entire Indus system of rivers. Some 46.8 million people lived in the Indus Basin as of 1951, the date of the last census. The annual net increase in the population of the Basin is approximately 1.5 percent. The persistent necessity for the Government of Pakistan to buy food grains is indicative of the food shortages suffered in the area. See SPATE, INDIA and PAKISTAN, 108-109 (1954).

When the British withdrew from the Sub-Continent, the partition line between Pakistan and India was drawn across the Punjab and through this highly developed irrigation system. The East Punjab controlled headworks for some of the principal irrigation canals of West Pakistan. The Arbitral Tribunal, set up to resolve questions arising out of Partition, handed down decisions premised on the continuance of the irrigation supplies. It did not order the continuance of those supplies only because such an order was not requested. Of this, Sir Patrick Spens, Chairman of the Arbitral Tribunal, has stated:

> "I remember very well suggesting whether it was not desirable that some order should be made about the continued flow of water . . . we were invited by both the Attorney-

> Generals [of India and Pakistan] to come to our decision on the basis that there would be no interference whatsoever with the then existing flow of water . . . . Our awards were published at the end of March 1948 . . . . I was very much upset that almost within a day or two there was a grave interference with the flow of water on the basis of which our awards had been made." Statement before joint meeting in London of the East-Indian Association and the Overseas League on February 23, 1955.

The day after the Tribunal ceased to exist, the East Punjab, on April 1, 1948, cut off the irrigation supplies in every canal crossing into Pakistan. The East Punjab eventually restored the flow of most, but not all, of the water. Most (but not all) of the irrigation supplies were restored in the principal Central Bari Doab and Dipalpur canal systems; supplies have not yet been restored in the Bahawalpur State Distributary which before Partition irrigated 62,000 acres. It nevertheless asserted that:

> "proprietary rights in the waters of the rivers in East Punjab vest wholly in the East Punjab Government and that the West Punjab Government cannot claim any share of these waters as a right."

These words are contained in a joint statement, dated May 4, 1948, signed by delegates from the East and West Punjab and representatives from the Governments of Pakistan and India. This joint statement records that:

> "Without prejudice to its legal rights in the matter, the East Punjab Government has assured the West Punjab Government that it has no intention suddenly to withhold water from West Punjab without giving it time to tap alternative sources."

The statement further records that the East Punjab Government's assertion of proprietary rights is disputed by the West Punjab Government, "its view being that the point has conclusively been decided in its favour by implication by the Arbitral Award and that in accordance with international law and equity, West Punjab has a right to the waters of the East Punjab rivers."

The Jordan River Dispute. The allocation of the supplies of the Jordan river for agricultural and industrial purposes is disputed between Syria, Lebanon and Jordan on the one side, and Israel on the other. Israel, the upper riparian, is planning to tap the waters of the river by means of canals and pipelines and run it to the Negev area to irrigate that part

of the country. In 1953 Syria filed a complaint with the Security Council objecting to the Israeli project because it allegedly violated the demilitarized zone between the two countries. The real question, however, was Israel's right to the proposed withdrawals. Israel's project is now at a standstill, but resumption of construction work threatens to kindle a shooting war.

The Nile Problem. While Sudan has admitted Egypt's right to the Nile waters presently used by Egypt for irrigation, the concern for the equitable division of the balance supplies has brought about a dispute between the two countries. Egypt's projected Aswan High Dam would flood millions of acres of land in Sudan with the formation of a lake 350 miles long. Sudan's consent to the flooding of their territory could be obtained were it not for a basic disagreement on the manner of carrying out an equitable apportionment of the impounded water, which would amount to some 34 trillion gallons.

5. A considerable number of river systems either form or traverse international boundaries in Latin America. Yet, no international dispute over the uses of waters of common interest seems to have reached the acute stage of some of the disagreements outlined above. The reasons are chiefly twofold. One, a number of treaties in which fresh water resources are exploited for the mutual benefit of riparian states are in force and pay tribute to the spirit of solidarity of Latin American countries, and two, the marvelous potential of some of the great river systems of the Central and South American continent has not yet been brought to full fruition. Increasingly frequent technical studies indicate, however, that the problems involved are very much of present international concern.

Enormous power potentials will shortly be utilized from Latin American rivers of international scope. The "Rio de la Plata" basin includes such tributaries as the Paraná, the Uruguay, the Paraguay, and the Pilcomayo rivers, to name a few, and their own tributaries. These rivers are in parts the international boundary or cross the border of Argentina, Bolivia, Brazil, Paraguay and Uruguay.

The Amazon river basin, the largest in South America, with its main course and tributaries cuts across Bolivia, Peru, Ecuador, Colombia and Brazil. The Orinoco river, the third largest in Latin America, originates in Venezuela and forms part of the boundary between Colombia and Venezuela before resuming its course toward the Atlantic entirely in the latter country. These are only the major Latin American river systems

of international concern. The development of these rivers consistently with international law will be essential to the prosperity—and peace—of the continent.

6. *The Columbia River Dispute.* The Columbia River originates in Canada. For almost two-thirds of its length it flows in the United States. The river derives a substantial part of its water volume from Canadian sources. The waters of this international river are now being used in the United States for hydro-electric power generation at five completed dams. Two other dams are under construction and five more are planned in the United States. In addition, the waters are being used for irrigation and reclamation. Great quantities of water from the Columbia are being used also for the operation of the Hanford Atomic Works. The lower reaches of the river are used for navigation, and the fishing industry draws on the same waters for its supplies. Canada is now planning to divert fifteen million acre feet of water annually from the Columbia into an all Canadian river—the Fraser—to increase its production of electric energy. The projected diversion would cut off approximately twenty-five percent of the flow of the Columbia into the United States and cause the operation of American projects and industries on a basis of seventy-five percent of capacity only. The International Joint Commission, set up by both countries to study and solve common river problems, is deadlocked on the question of proper allocation of water supplies. For a detailed account of the technical and legal aspects of the dispute see THE DIVERSION OF COLUMBIA RIVER WATERS, INSTITUTE OF INTERNATIONAL AFFAIRS, UNIVERSITY OF WASHINGTON, BULLETIN No. 12, Part 4, 1956.

7. BULLETIN ON INTERNATIONAL WATER PROBLEMS 17 (March, 1953) prepared by the OFFICE OF FOREIGN ACTIVITIES, BUR. OF RECLAMATION, for its administrative use.

8. See Appendix C for the full text of the Dubrovnik principles.

9. ANDRASSY, UTILISATION DES EAUx INTERNATIONALES NON MARITIMES (EN DEHORS DE LA NAVIGATION), (Institut de Droit International, 1957).

10. The sources of international law to be applied by the International Court of Justice are listed as follows in Article 38 of the Statute of the Court:

(1) The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply:
   (a) international conventions, whether general or particular, establishing rules expressly recognized by the contesting states;
   (b) international custom, as evidence of a general practice accepted as law;
   (c) the general principles of law recognized by civilized nations;
   (d) subject to the provisions of article 59, judicial decisions, and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.

(2) This provision shall not prejudice the power of the Court to decide a case ex aequo et bono, if the parties agree thereto.

11. Altamira, J., in the Lotus case, P.C.I.J., Series A, No. 10, 106-107, 1927, 2 HUDSON, WORLD COURT REPORTS 91 (1927).

12. Sikri, *Comments on the First Report of the Committee* 11, in PRINCIPLES OF LAW GOVERNING THE USES OF INTERNATIONAL RIVERS, Lib. of Cong. Cat. Card No. 57-10830; this book will hereafter be cited as "INTERNATIONAL RIVERS."

13. *Observations on "Comments on the First Report of the Committee" by Mr. S. M. Sikri* 33, in "INTERNATIONAL RIVERS," *op. cit. supra* note 12.

14. Sikri, *supra* note 12; Berber, *op. cit. supra* note 3.

15. See Appendix A.

16. The full text of the sources of international law binding on the International Court of Justice is reproduced in note 10, *supra.*

17. The ECE Report though conceding the difficulty in using bilateral conventions as evidence of general law, concludes (pp. 204-5):

> "Nevertheless, the examination of these conventions is of value insofar as it provides a clue to the conception of international law held by nations generally. If, in fact, the same problem is resolved in the same way in a large number of agreements, it may be concluded that that solution is in line with the principles generally recognized by civilized States."

Speaking of international custom as applicable by the International Court of Justice, Prof. Julius Stone, has this to say:

> "The 'international custom' which the Court is to apply under the second head (b) is subject to difficulties of ascertainment considered elsewhere; and this requires the Court to 'find' and 'declare' the law, ... *It is to be noted that treaties may have to be resorted to under this second as well as the first head. For, quite clearly, even if a*

treaty does not establish any rules expressly recognized by the contesting Parties, the fact of its conclusion may constitute evidence of an 'international custom evidencing a general practice accepted as law' within Head b, just as may decisions of municipal courts, diplomatic exchanges or protests." (Emphasis added). (STONE, LEGAL CONTROLS OF INTERNATIONAL CONFLICT 135 (1954)).

There are notable examples of custom having been derived from like provisions in a number of treaties. As an illustration, in the *Samos Navigation Company* case, it was held that an international convention to regulate the question of salvage on the high seas, adopted by almost all maritime states, was applicable to Egypt as well, although Egypt had never adhered to it. (Crichton v. Samos Navigation Company et al. ANNUAL DIGEST OF PUBLIC INTERNATIONAL LAW CASES (Lauterpacht), 1925-26, No. 1 at 3.) And in the *Wimbledon* (The Wimbledon, P.C.I.J., Series A, No. 1, at 25), the Permanent Court of International Justice inferred the existence of a customary rule of international law from the fact that the terms of the treaties by which the Suez and Panama Canals were established were identical in many respects. In cases where a state cedes part of its territory to another or a new state is formed with parts of an old state, the successor state is liable for a proportionate part of the debt of the predecessor state under numerous treaties. These, however, are regarded as "declaratory of a rule of international law to that effect." (1 OPPENHEIM, INTERNATIONAL LAW 167 [8th ed., Lauterpacht, 1955]).

Further, many treaties deal with immunities of diplomats and consular agents and the duties of states to refrain from discriminating against nationals of a friendly country; but diplomats and consular agents have certain recognized privileges regardless of treaty, and no country would concede that its nationals could be discriminated against though there were no treaty.

The second element of custom is said to be the *opinio juris vel necessitate,* or the more or less subjective consciousness on the part of states that a certain practice is imposed by law. This nebulous "subjective" requirement has been aptly appraised thus:

> " . . . it cannot be doubted that the classical doctrine has not been able to determine indisputably either the moment at which the conviction has to exist that the act that makes custom is legal, or whether the law with which the act in question has to be thought to be in conformity is positive law, or whether the conformity is to be with natural law or with considerations of expediency. (Kopelmanas, *Custom as a Means of the Creation of International Law,* XVIII BR. Y. INT'L L. 127 at 130 (1937).

Other authors opposing the validity of *opinio juris* are: Guggenheim, *Les Deux Eléments de la Coutume en Droit International,* I ETUDES EN L'HONNEUR DE GEORGES SCELLE 275-284 (1950); LAMBERT, INTRODUCTION, LE REGIME SUCCESSORAL, Première Serie, ETUDES DE DROIT COMMUN LEGISLATIF OU DE DROIT CIVIL COMPARE, appearing in I LA FONCTION DU DROIT CIVIL COMPARE 110 *et seq.* (Paris 1903). Lambert argued that the origin of this psychological conception is to be sought in the distrustful attitude as to custom taken up by canonical theory.

A literal insistence on the requirement of the *opinio juris* would stymie rather seriously the progress of international law. When states enter into treaties with each other, their chief concern is not with whether or not they must, under international law, adopt one rule rather than another. They are mainly intent on *making* the law suited for their purposes. Then, how warranted is it to expect *direct* evidence of one thing when the parties are busy doing something else?

Aside from this severe shortcoming of the classical doctrine of *opinio juris,* as regards at least certain modes of creating international custom, in the case of international river law, there are examples readily available dating from nearly a century ago, from widely separated regions in which a state has refrained from using its advantage admittedly out of respect for custom.

As early as 1862 the Netherlands Government took the position that:

> "The Meuse being a river common both to Holland and to Belgium, it goes without saying that both parties are entitled to make the natural use of the stream, but at the same time, *following general principles of law,* each is bound to abstain from any action which might cause damage to the other." Translation of letter from Netherlands Government to Dutch ministers in London and Paris appearing in Smith at 217; (emphasis added).

Protests about the use of the Rio Grande river began as early as 1880, (Smith, at 41), and the convention of 1906 between United States and Mexico, while specifically disclaiming any legal obligation of the United States, contained a waiver by Mexico of all claims for damages to its land owners by reason of past diversions of water in the United States.

18. Smith, at 167.

19. Paper regarding negotiations for a treaty of alliance with Egypt, Egypt No. 1 Cmd. No. 3050 at 31 (1928). On the protection of existing uses in international practice see Appendix D.

20. The most abundant and persuasive evidence of principles limiting the absolute power of states to use international rivers without regard for injurious effects on their neighbors, lies in the consistent pattern of behavior which states have demonstrated in entering agreements for the common exploitation of water resources or for just distribution of the same. States have uniformly recognized the right of their neighbors to share in the use of international rivers.

The assertion of an absolute right rarely finds expression in an international agreement. The similarity of effect of such treaties and conventions, the number of nations that have made them, and their spread over both time and geography, give these agreements significance for the present purpose. Too long and too often have nations recognized the existence of some, and similar, rights in their neighbors to permit it now to be said that no such rights exist. Professor Smith, in Appendix I of his work, abstracts or summarizes 51 treaties and other international agreements, from 1785 down to 1930. Each of these agreements limits the freedom of action of at least one, and usually of both or all, of the signatories with regard to waters which are within their respective territories and subject to their respective jurisdictions. While this collection relates chiefly to the rivers of Europe, it deals also with the international rivers and lakes of North America, with the Nile and its tributaries, and with a few rivers elsewhere in the world.

The ECE Report (at 95-152) summarizes some of the treaties listed by Smith and adds about 40 other treaties and agreements from all parts of the world, including Africa, Asia and America. The states' freedom of action is limited in all these treaties. The conclusions of the authors after sifting this wealth of materials are quoted in note 22, *infra*.

21. At the outset it is pertinent to notice that, in treaties dealing specifically with non-navigational uses, and aside from mere boundary treaties, no case has been found in Latin America in which one or more of the parties to a treaty claimed absolute power of disposal over the portions of international rivers running in its territory.

(a) *Brazil-Uruguay.* The 1933 treaty between Brazil and Uruguay provides that when there is a possibility that projected works for the utilization of waters of their boundary and successive rivers may cause "appreciable and permanent" alterations in the water system, the state concerned, "shall not carry out the work necessary therefor until it has come to an agreement with the other State." (181 L.N.T.S. 69 1937-1938). Another example of Brazilian practice is found in the exchange of notes between Brazil and the United Kingdom, signed at London on November 1, 1932. The principles of mutuality of rights and of consent are embodied in the notes (ECE Report, at 147).

(b) *Argentina-Bolivia-Paraguay.* The 1941 tripartite treaty of Argentina, Bolivia and Paraguay, concerning the utilization of the waters of the Pilcomayo river establishes an International Commission for the study of ways and means of furthering the expressed common interest of the states by the "adopción de medidas tomadas de común acuerdo para el aprovechamiento de las aguas del dicho río y para intentar su navegación . . . así como para reglamentar la pesca, el riego o el uso industrial de sus aguas." (REVISTA ARGENTINA DE DERECHO INTERNACIONAL 2a Serie, Tomo IV, No. 2, at 146-147 (1941)). The treaty has not yet been ratified by Bolivia.

(c) *Argentina-Paraguay.* Under a 1926 treaty Paraguay and Argentina agreed that the latter could undertake construction work for the utilization of the energy of the rapids of the Paraná River at the point called "Saltos del Apipé" in exchange for Paraguay's right to receive 7.5% of the power production at the same price and conditions prevailing in Argentina. (VOLPI, *op. cit.* in note 2, *supra,* at 15).

Another treaty between Argentina and Paraguay was entered into in 1945, with a view to regulating the distribution of the waters of the Pilcomayo river. A "Comisión Mixta de Límites" and a "Comisión Mixta de Estudios Hidráulicos," were created to provide for the sharing in equal parts of the waters of the above river. (DEP'T. OF STATE BULL. 642-43 (Oct. 21, 1945). REVISTA ARGENTINA DE DERECHO INTERNACIONAL, Tomo IX, No. 1, at 31-39 (1946). VOLPI, *op. cit.* in note 2, *supra,* at 14).

(d) *Argentina-Uruguay.* In 1946 Argentina and Uruguay entered a treaty in which the two states "declaran que las aguas del río Uruguay serán utilizadas en común por partes iguales." (Art. 1 of Agreement and Additional Protocol Relative to the Utilization of the Rapids of the Uruguay River in the Zone of Salto Grande, signed at Montevideo on Dec. 30, 1946; PAN AMERICA 61 (B.A. 1947)). The treaty has not yet been ratified by Uruguay. The parties to the treaty agreed also that no works for the use of the Uruguay river and its tributaries will

be authorized without previous notification of the Mixed Technical Commission. Article 5, *ibid.* at 64.

(e) *Dominican Republic-Haiti.* The 1929 treaty of Peace, Friendship and Arbitration between the Dominican Republic and Haiti, signed in 1929, sets up compulsory arbitration procedures and limits the parties' rights to the waters of international rivers to "just and equitable" uses having regard to the effects on each other's water supplies. Article 10 of the treaty reads as follows:

> "In view of the fact that rivers and other streams rise in the territory of one of the two States and flow through the territory of the other or serve as boundaries between them, the two High Contracting Parties undertake not to carry out or be a party to any constructional work calculated to change their natural course or to affect the water derived from their sources.
> "This provision shall not be so interpreted as to deprive either of the two states of the right to make just and equitable use, within the limits of their respective territories, of the said rivers and streams for the irrigation of the land or for other agricultural and industrial purposes." (Treaty of Peace, Friendship and Arbitration, signed at Santo Domingo, Feb. 20, 1929, 105 L.N.T.S. 223).

(f) *Guatemala-El Salvador.* In 1957 Guatemala and El Salvador agreed on the conditions under which each party could exploit the resources of the Güija lake. Each country is bound to respect the other's rights to the waters; prohibitions and liabilities are spelled out. A mixed commission was also created to administer the uses of the waters. The introductory part of the treaty reads as follows:

> "Los Gobiernos . . . tomando en consideración que el caudal de aguas del Lago de Güija, ubicado entre los territorios de ambos paises, constituye una riqueza approvechable por uno y otro Estado con fines de electrificación, riego, dotación de aguas y otros similares, han convenido en determinar bases para su utilización, que descansen en la mutua conveniencia y en la necesidad de proteger los intereses públicos y privados que pudieren afectarse en alguna forma con el aprovechamiento que haga qualquiera de ellos." (Tratado entre las Repúblicas de Guatemala y de El Salvador Para el Aprovechamiento de las Aguas del Lago de Güija; a copy of the treaty was made available through the courtesy of the Dep't. of State of the United States).

(g) *Bolivia-Peru.* In 1955 Bolivia and Peru entered into a preliminary agreement for the study of the problems involved in the common exploitation of the water resources of Titicaca lake (Text in REVISTA DE DERECHO, at 93 (Lima, June 1955, Issue No. 23)), and established a Mixed Commission for the purpose. The preliminary agreement has in 1957 ripened into a full treaty which proclaims the "co-ownership" of the lake on the part of the countries in question. (Information supplied through the courtesy of the Dep't. of State of the United States, from a document which may not be released because still classified).

22. It is remarkable that among the various scholars who have studied these problems only very few have adhered to the doctrine of absolute sovereignty. The ECE Report, in its review of some thirty authors (at 51-68) finds that only three or four have maintained the doctrine of unlimited sovereign rights in the riparian states. To these we should add SIMSARIAN, A STUDY OF THE LAW GOVERNING THE DIVERSION OF INTERNATIONAL WATERS 106-111 (1939), though he admits an exception for boundary waters, and FENWICK, INTERNATIONAL LAW 391 (3d ed. 1948). These authors maintain that there is no positive international law limiting the acknowledged sovereignty of states and that therefore a state is free to dispose at will of the waters in its territory. A review of the position of the most prominent authors supporting the doctrine of absolute sovereign rights can be found in ANDRASSY, *op. cit.*, note 9, *supra.* The author disagrees and affirms the existence of principles in limitation of sovereignty. Such an alleged principle of international river law has never been acted upon by any state and must be relegated to the realm of abstraction. Professor Smith, after extensive review of both theory and practice, says in his concluding chapter:

> "From the material that we have now studied we can at least deduce with confidence certain negative results. In the law of rivers there is clearly no place for any purely legal doctrine derived from any single abstract principle, whether that principle be the absolute supremacy of the territorial sovereign or the old private law doctrine of riparian rights. The former is as essentially anarchic as the latter is obstructive. The former would permit every state to inflict irreparable injury upon its neighbors without being amenable to any control save the threat of war. The latter is essentially a right to veto." (Smith at 144).

The overwhelming majority of legal writers have given support to the theory of equal sovereign rights and of mutual consent of states interested in the waters of the same river

system. For a detailed analysis of the theories of scholars asserting doctrines imposing obligations on riparian states see ECE Report at 61-68 and Andrassy, *Les Relations Internationales de Voisinage*, 79 RECUEIL DES COURS, 104 *et seq.* (Hague Academy, 1951).

Professor Brierly in his recent book observes that:

> "The practice of States as evidenced in the controversies which have arisen about this matter, seems now to admit that each State concerned has a right to . . . have its own interests weighed in the balance against those of other States; and that no other State may claim to use the waters in such a way as to cause material injury to the interests of another, or to oppose their use by another State unless this causes material injury to itself." (BRIERLY, THE LAW OF NATIONS, 204-205 (V ed. 1955)).

Lauterpacht, now a judge of the International Court of Justice, likewise conceives the "duty of the State not to interfere with the flow of a river to the detriment of other riparian States", as "one of those general principles of law recognized by civilized States which the Permanent Court is bound to apply by virtue of Article 38 of its Statute" (1 OPPENHEIM, INTERNATIONAL LAW 346-347 [8th ed. LAUTERPACHT, 1955]).

While admitting the difficulty of discovering a satisfactory theoretical basis for the limitation of absolute sovereignty, the ECE Report expresses its own conclusions (so far as pertinent at this point of our discussion) as follows:

> "A State has the right to develop unilaterally that section of the waterway which traverses or borders its territory, insofar as such development is liable to cause in the territory of another State, only slight injury or minor inconvenience compatible with good neighborly relations.
> "On the other hand, when the injury liable to be caused is serious and lasting, development works may only be undertaken under a prior agreement." (ECE Report, at 211).

Sauser-Hall, who has recently treated this subject from the point of view of international neighbor law, after reviewing the domestic laws of France, Germany, Italy, Switzerland and the United States, concludes that one principle seems to be generally recognized: "no diversion of a river or stream which is of a character to strongly prejudice other riparians or communities whose territories are bordered by or traversed by the same stream." (*L'Utilisation Industrielle des Fleuves Internationaux*, 83 RECUEIL DES COURS 517, [Hague Academy, 1953; II] trans. ours). In his view this principle is the main contribution by analogy of domestic law to international law.

He urges the evolution of rules "in a manner which will reconcile, as harmoniously as possible, the particular interests of each State with those of other interested States." (*Id.* at 474, trans. ours).

Professor Smith, in commenting on a case of diversion of waters from the Great Lakes of the United States, says:

> "The principle of equitable apportionment contains the essence of the international law upon the matter, and its application in particular cases can only be determined by voluntary agreement." (Smith, at 51).

No dissent from the basic principle of mutual rights and obligations between states interested in the same river system has been found among Latin American scholars who have dealt with the subject. The principle of co-dominion of the waters of an international river, and thus of the right to a degree of shared sovereignty over their disposal, seems to be the prevailing view in Latin America. In 1932, the "Comisión Permanente de Codificación del Derecho Internacional Público" of Rio de Janeiro issued a report on the general principles which may facilitate agreements among riparian states, concerning the industrial and agricultural uses of international rivers. In the report, the right of riparian states to the waters was said to be " . . . un derecho exclusivo, aunque limitado en su ejercicio por la necesidad de no perjuiciar el derecho igual del vecino." (The report is reproduced in VOLPI, *op. cit.* note 2, *supra*, at 85). The report which was submitted by seven Latin American jurists, adopts the view that no riparian state can undertake to utilize the waters of international rivers without prior agreement with other interested states. The support for this position was found in the opinions of the "internacionalistas de más valía." (*Id.* at 87).

Dr. Isidoro Ruiz Moreno stated as far back as 1934 that "si bien todo Estado tiene el derecho de ejectutar sobre su territorio los trabajos conducentes al aprovechamiento de fuerzas hidraulicas, cada vez que desee realizar alguno, de que pueda resultar para otro un perjuicio grave, deberá iniciar negociaciones." (RUIZ MORENO, 2 DERECHO INTERNACIONAL PUBLICO 42 [1934]). The same author has reiterated the principle of limitation of absolute sovereign rights in his MANUAL DE DERECHO INTERNACIONAL PUBLICO 178 (1943).

Sosa-Rodriguez, the author of a work on international river law of Latin America, while adhering to the doctrine of absolute sovereign rights as regards navigation, in 1935, argues that it does not follow that the same doctrine is sanctioned as regards the utilization of international rivers for industrial or

agricultural purposes. He recognizes a right in favor of each riparian state which limits the liberty of action of other states. The right to be protected is a property right over that part of the river which belongs to another state, and which must be taken into account before utilization projects may impair it. His solution consists in the resort which states must have to private law precedents in similar situations under the doctrine of international neighbor law. SOSA-RODRIGUES, LE DROIT FLUVIAL INTERNATIONAL ET LES FLEUVES DE L'AMERIQUE LATINE 51-53 (1935).

More recent studies indicate the same approach to international river law on the part of Latin American authors. Professor Diaz Cisneros in his recent work on public international law has this to say:

> "La explotación industrial y agrícola, se presta a que afecte los intereses del otro Estado ribereño. Diques, acequias para riego, instalaciones para el approvechamiento de la fuerza motríz, todo puede incidir en las corrientes del río y producir otras consecuencias, por lo cual, en principio solo pueden hacerse esos trabajos previo acuerdo entre los Estados ribereños, y aún con el de los Estado del curso superior e inferior del río, que pueden sentir los efectos de aquellos." (DIAZ CISNEROS, 1 DERECHO INTERNACIONAL PUBLICO 539 (1955)).

Professor Cardona of Mexico has recently written an interesting article of the principles of international river law. In his treatment of the problem he resorts to the theory of shared sovereignty over international fresh waters, and supports most engagingly the principle of shared sovereignty over the available supplies of waters between interested states. It is worthwhile to quote the relevant parts of the author's language:

> "Así, en el caso de un río internacional, pueden facilmente percibirse dos clases de territorio de los estados vecinos: el terrestre, dividido por el propio río limítrofe y el fluvial que va más allá de este y que comprende no sólo la parte de la cuenca situada dentro del territorio terrestre propio, sino también la ubicada en el estado vecino. Sobre estas consideraciones, . . . se funda el principio de la 'internacionalidad de las cuencas', que es uno de los elementos constitutivos del sistema, que, según el pensamiento difundido en México, puede conducir a la solución del problema.
>
> La internacionalidad de las cuencas supone un conjunto de derechos y obligaciones común a los estados vecinos

> . . . . De ello resulta que el régimen jurídico que norma esta concurrencia de derechos y obligaciones afecta el ejercicio de la soberanía territorial de cada estado sobre su propio territorio terrestre.
>
> El principio, ampliamente reconocido en derecho internacional, aplicable a este régimen, es el de que un estado puede ejercitar sus derechos de soberanía territorial en la forma y proporciones que estime convenientes pero siempre que no dañe el derecho del estado vecino." (Cardona, *El Régimen Jurídico de los Ríos Internacionales*, 56 REVISTA DE DERECHO INTERNACIONAL 24, 26 (La Habana, No. 111, 1949)).

The author's conclusion is that international river law imposes a "distribución justa de los aprovechamientos entre las dos partes" (*Id.* at 26), on the basis of present and future needs of riparian states.

23. The most fully developed contribution to the jurisprudence on this subject is that of the Supreme Court of the United States in controversies between the States of the Union. A question may be raised of the applicability of this source of authority, because the cases deal with interstate rather than international disputes.

Judge Lauterpacht of the International Court of Justice wrote in 1929 apropos the value of municipal decisions at large, that custom being the sum total of the acts of states, which shows a concordance sufficient to ground a principle as accepted, the analogy of decisions of domestic tribunals should be considered, when in *pari materia*, since they most certainly constitute "acts" of states. In addition the author states that there is no reason to believe that the inclusion in Article 38 of "judicial decisions" as subsidiary means of determining rules of international law, is meant to refer only to decisions of international tribunals. (Lauterpacht, *Decisions of Municipal Courts as a Source of International Law*, X BR. Y. INT'L. L. 65 (1929)). Professor Cowles puts it:

> "There is no question that if the United States Supreme Court had spoken first on the subject, its decision and opinion would be briefed by counsel and carefully considered by the International Court of Justice." (Cowles, *International Law as Applied Between Subdivisions of Federations*, 74 RECUEIL DES COURS 659, 742 [Hague Academy, 1949, I]).

The analogy of international law and private law, let alone federal decisions applying international law outright, has been

said to be felt strongly precisely in questions of neighbor law, of which international river law is a part. (Huber, *Ein Beitrag Zur Lehre von der Gebietzhoheit an Grenzfluessen*, 1 ZEITSCHRIFT FUER VOLKERECHT 29 and 159 [1909]).

It must, of course, be understood that the process of analogy in international law does not correspond to the concept of analogy with which civil-law-trained lawyers are familiar. Analogy in international law is not compulsive in the sense that when all other means fail, a rule suggested by analogy must, of necessity, be applied. The process of analogy in international law has been aptly described thus:

> "It is an inductive and experimental method subject to correction. But its foundation is sound, based as it is on the solid rock of juridical logic and the principles of legal justice common to law . . . . It is especially in an underdeveloped system of law that it would be most unreasonable to sacrifice scientific progress and efficiency of interpretation on the altar of positivist formulas." (LAUTERPACHT, PRIVATE LAW SOURCES AND ANALOGIES OF INTERNATIONAL LAW, 83-84 (1927)).

A reading of the cases decided by the United States Supreme Court leaves little doubt that the rules which the Court has evolved for the solution of interstate disputes stem at least in part from international law. In river disputes between states the Court has given much consideration both to the matter of its own jurisdiction and to the question what substantive law it should apply to such controversies. In discussing both issues it has likened the cases to disputes between independent nations, pointing out that the U.S. Constitution substituted the judicial process for diplomacy and war as a means of settlement. *Missouri* v. *Illinois*, 180 U.S. 208, 241 (1901), 200 U.S. 496, 520-521 (1906); *Kansas* v. *Colorado*, 185 U.S. 125, 143-144 (1902); *New Jersey* v. *New York*, 283 U.S. 336, 342 (1931); *Nebraska* v. *Wyoming*, 325 U.S. 589, 608 (1945).

In *Kansas* v. *Colorado* (*supra* at 146-147) the Court said:

> "Sitting, as it were, as an international as well as a domestic tribunal, we apply Federal law, state law, and international law, as the exigencies of the particular case may demand . . . . ."

And on the second hearing of that case, the Court added (206 U.S. 46, 97 [1907]):

> "Nor is our jurisdiction ousted, even if, because Kansas and Colorado are States sovereign and independent in local matters, the relations between them depend in any respect upon principles of international law. International law is no alien in this tribunal."

In *Wyoming* v. *Colorado*, 286 U.S. 494, 509 (1932), the Court pointed out that it had accepted counsel's characterization of the earlier litigation between the same parties as one "between the two sovereignties of Wyoming and Colorado."

The applicability of international law to disputes between the states appears even more clearly in cases involving demarcation of boundaries, and particularly in the adoption of the doctrine of the thalweg. See *Handly's Lessee* v. *Anthony*, 5 Wheat. 374 (1820; per Marshall, C. J.); *Iowa* v. *Illinois*, 147 U.S. 1 (1893); *New Jersey* v. *Delaware*, 291 U.S. 361, 378-385 (1934).

The Constitution confers on the Court jurisdiction over interstate controversies without prescribing substantive rules for their settlement, and the Court has been confronted with much the same problem as though it were dealing with independent nations. There is thus at least a strong analogy between its decisions and those which might be anticipated from a truly international tribunal. It appears to be the consensus of scholars that, as said in the *Trail Smelter* decision, "it is reasonable to follow by analogy, in international cases, precedents established by that [the Supreme] court" in interstate cases "where no contrary rule prevails in international law and no reason for rejecting such precedents can be adduced from the limitations of sovereignty inherent in the Constitution of the United States." (35 AM. J. INT'L. L. 684. 714 [1941]).

The views of this tribunal concerning the significance of Supreme Court decisions are of especial weight because the United States member of the tribunal was Charles Warren, the historian of the Supreme Court, while the neutral member was Jan Frans Hostie of Belgium, himself a student of the work of the United States Supreme Court in the international field.

The Indus (Rau) Commission (Report of the Indus (Rau) Commission [1942], Vol. I. Printed by Superintendent, Government Printing, Punjab, at 23 [1950]) dealing with a water diversion dispute between two provinces of India, treated as interchangeable the international and interstate precedents, saying of the two merely that "we find the same tendency." It discussed at length the decisions of the United States Supreme Court and placed much reliance on them.

Professor Smith says (at 104) that "the mutual relations of the member states in a federal union have a quasi-international character, and in determining their respective rights federal tribunals have been compelled to decide according to principles

of international law." The federal cases he considers are chiefly those in the United States Supreme Court.

The ECE Report, speaking of the importance to international case law of the decisions of the United States, Swiss and German courts, says (at 70):

> "This comparison seems an apt one in view of the fact that no national codified law common to the parties in dispute existed at the time, and that the judgments in question cited the principles of international law."

The report then refers to M. Hostie's account of the interstate river controversies in the United States and the divergence of domestic law between the states; and adds *(Ibid.)*:

> "This gave rise to a series of disputes which could be settled only by reference to the actual rules of international law."

An apparently contrary view is expressed by Professor Dr. F. J. Berber, *op. cit.* note 14, *supra*, who, after citing the above-quoted language of the *Trail Smelter* decision, states flatly that "there is no rule of public international law which would permit such an analogous application" *(Id.* at 125; trans. ours). In this connection, it is important to bear in mind the distinction between the process of "analogy" known to civil-law-trained lawyers, according to which an analogous legal principle developed in a context different from that of a given dispute is considered compulsive, and the process whereby an analogous rule is considered only a guide to the decision of the case at hand. It is believed that Professor Berber is referring to the process of "analogy" known to municipal civil law, whereas the Trail Smelter Tribunal thought the decisions of the U.S. Supreme Court to be only a "guide" in this field of international law. It is submitted that the process of analogy applied in the *Trail Smelter* decision is the one more suitable to international law. The process in the municipal civil law is predicated upon the civil law system's concept of the existence of an all-inclusive, pre-existing set of legal norms. International law is not so predicated.

Professor Cowles, basing his argument chiefly on an extensive review of United States cases, asserts that in controversies between the members of a federal union courts ordinarily apply international law. *(International Law as Applied between Subdivisions of Federations,* 74 RECUEIL DES COURS 659 [Hague Academy, 1949, I]). He quotes William Howard Taft as saying in 1915 that in the typical interstate case "there is nothing

but international law to govern." *(Id.* at 690). In his concluding commentary Professor Cowles says:

> "In such cases supreme federal courts act in substantially the same manner as international tribunals dealing with fully independent States." *(Id.* at 740).

Professor Sauser-Hall considers the use in international matters, by analogy, of decisions of tribunals in federal states. *(L'Utilisation Industrielle des Fleuves Internationaux,* 83 RECUEIL DES COURS 471 [Hague Academy, 1953, II]). He says:

> "The conflicts of interest which the utilization of water courses can stir up between the member States of a Confederation of States, or of a federal State present the strongest analogy to those which occur on the international plane between sovereign states; . . . ." *(Id.* at 471-472, trans. ours. See *Id.* at 516-517).

Further, under Article 38 of the Statute of the I.C.J., there is no reason to deny the opinions of municipal judges at least the status of "teachings" of qualified publicists.

In a long and unbroken line of decisions the Supreme Court condemns the principle of absolute sovereign rights and upholds the principle of equitable apportionment. The contention that a state is entitled to do as it wishes with the waters of an interstate river physically within its boundaries was asserted by Colorado in two of the earlier cases on this subject, *Kansas* v. *Colorado,* 185 U.S. 125 (1902), 206 U.S. 46 (1907), and *Wyoming* v. *Colorado,* 259 U.S. 419 (1922), and was rejected by the U.S. Supreme Court. In the latter case the Court said (*Id.* at 466):

> "The contention of Colorado that she as a State rightfully may divert and use, as she may choose, the waters flowing within her boundaries in this interstate stream, regardless of any prejudice that this may work to others having rights in the stream below her boundary, can not be maintained. The river throughout its course in both States is but a single stream wherein each State has an interest which should be respected by the other. A like contention was set up by Colorado in her answer in *Kansas* v. *Colorado* and was adjudged untenable. Further consideration satisfies us that the ruling was right. It has support in other cases, of which *Rickey Land & Cattle Co.* v. *Miller & Lux,* 218 U.S. 258; *Bean* v. *Morris,* 221 U.S. 485; *Missouri* v. *Illinois,* 180 U.S. 208, and 200 U.S. 496; and *Georgia* v. *Tennessee Copper Co.,* 206 U.S. 230, are examples."

The Supreme Court has consistently adhered to this position, whether the domestic law of the states concerned was the com-

mon law of riparian rights, the law of appropriation, or some variant of these. Among the principal cases are *Missouri* v. *Illinois*, 180 U.S. 208 (1901), 200 U.S. 496 (1906); *North Dakota* v. *Minnesota*, 263 U.S. 365 (1923); *Wisconsin* v. *Illinois*, 278 U.S. 367 (1929); *Connecticut* v. *Massachusetts*, 282 U.S. 660 (1931); *New Jersey* v. *New York*, 283 U.S. 336 (1931); *Colorado* v. *Kansas*, 320 U.S. 383 (1943); and *Nebraska* v. *Wyoming*, 325 U.S. 589 (1945).

The doctrine of absolute rights was also rejected by the Swiss Federal Tribunal in *Aargau* v. *Zurich* (Smith, at 39, 104), and by the German Staatsgerichtshof in *Wuerttemberg and Prussia* v. *Baden* (*Id.* at 55, 117). The Italian Court of Cassation, in *Société Énergie Électrique du Littoral Mediterranéen* v. *Compagnia Imprese Elettriche Liguri* (1939), ANNUAL DIGEST OF PUBLIC INTERNATIONAL LAW CASES [Lauterpacht] 1938-1940 No. 47), said:

> "International law recognizes the right on the part of every riparian State to enjoy as a participant of a kind of partnership created by the river, all the advantages deriving from it for the purpose of securing the welfare and the economic and civil progress of the nation . . . . However, although a State, in the exercise of its right of sovereignty, may subject public rivers to whatever regime it deems best, it cannot disregard the international duty, derived from that principle, not to impede or to destroy, as a result of this regime, the opportunity of the other States to avail themselves of the flow of water for their own national needs."

Important international arbitral awards can also be referred to in support of the recognition of existing international duties. On the other hand, no international decision supporting the principal of absolute sovereignty has been found.

(a) *Chile-Peru.* In the settlement of May 15, 1929, of the Chilean-Peruvian dispute over the Tacna-Arica region, the parties accepted the formula prepared by the President of the United States, which grants to Peru full ownership over two canals in Chilean territory and imposes a servitude on Chile to permit Peru to carry out maintenance work in the canals and to appropriate the water thereof. (See Appendix A).

(b) *Ecuador-Peru.* An arbitration award rendered by the Chancellery of Brazil (Aranha formula), concerning the utilization of the waters of the Zarumilla river, was accepted by both Peru and Ecuador in 1945. The award recites that:

> "El Perú se compromete a desviar una parte del río Zarumilla para que corra por el antiguo lecho, dentro del plazo de tres años, para garantizar el auxilio necesario para la vida de las poblaciones ecuadorianas situadas en su margen, quedando aún asegurado al Ecuador *el condominio de las aguas de acuerdo con la práctica internacional.*" INFORME DEL MINISTRO DE LAS RELACIONES EXTERIORES A LA NACION, 623 (Quito, Ecuador; 1946). An account of the dispute and of the solution accepted appears in the same volume at 608-625). (Emphasis added).

(c) *United States-Canada.* A 1941 Arbitral Tribunal held that Canada's sovereignty over her own territory did not extend to the point of permitting the operation of a smelter in such a manner that noxious substances would be blown into U. S. territory with consequent injury to private property. (See Appendix B for an account of the decision.)

24. 35 AM. J. INT'L. L. 716 (1941); Appendix B.

25. See Appendix A.

26. *Hearings before the Committee on Foreign Relations on Treaty with Mexico Relating to the Utilization of the Waters of Certain Rivers*, 79th Cong., 1st Sess., Part 5, at 1762 (1945).

27. *Hearings, supra*, note 26, at 1751.

28. *Observations* . . . note 13, *supra*, at 16.

29. Many writers who have considered this question support this comprehensive view: HUBER, INTERNATIONALES WASSERRECHT, IN SCHWEIZERISCHE WASSERWIRTSCHAFT, 329 (1911). Smith at 150. DECLEVA, L'UTILIZZAZIONE DELLE ACQUE NEL DIRITTO INTERNAZIONALE, 1939. Professor J. L. Brierly states: "The practice of States as evidenced in the controversies which have arisen about the matter, seems now to admit that each State concerned has a right to have the system considered as a whole, . . ." BRIERLY, THE LAW OF NATIONS, 204 (5th ed. 1955). For a review of State practices see Laylin, *Comments Submitted to Committee of American Branch of the International Law Association on "First Report of the Committee on the Uses of the Waters of International Rivers"*, May 4, 1956, at 3 *et seq.* and 18, in "INTERNATIONAL RIVERS" *op. cit. supra* note 12.

30. Treaties usually do not indicate the basis on which an agreed apportionment of benefits has been arrived at, but a treaty is unlikely to be signed or ratified if either party deems the apportionment seriously one-sided. Protection of existing uses has been an uppermost consideration when such uses were in any wise threatened (see Appendix D). A fair division of surplus supplies or of other new benefits has sometimes been expressly so denominated. The Franco-Spanish boundary treaties of 1866 agreed to divide water excess to the requirements

of existing uses "in proportion to the extent of the irrigable lands." Boundary Treaty of Pyrenees, 14th July 1866, 56 BRITISH AND FOREIGN STATE PAPERS. A 1913 treaty between France and Switzerland divided electric power in proportion to the fall of the river in the respective territories. (Smith, at 178). A similar division of electric power is made by a treaty of 1927 between Spain and Portugal (ECE Report, at 102). The United States and Mexico, in the treaty of 1944, apportioned the water of the lower Rio Grande, including that to be made available by new storages, on the basis of stipulated shares of the contributions made by the various tributaries. Egypt and the Sudan agree that new supplies to be made available on the Nile must be apportioned equitably, but disagree on the basis of division that will be equitable (THE NILE WATERS QUESTION 36-41 [Ministry of Irrigation & Hydroelectric Power, Khartoum, December, 1955]).

Influenced, no doubt, by the decisions of the U. S. Supreme Court, interstate compacts allocating the water of interstate rivers frequently state as one of their purposes the effecting of an "equitable apportionment" or an "equitable division" or "distribution" of the supplies. See, *e.g.*, the following compacts: Colorado-New Mexico, La Plata River, 43 STAT. 796 (1925); Colorado-Kansas-Nebraska, Republican River, 57 STAT. 86 (1943); Arizona-Colorado-New Mexico-Utah-Wyoming, Upper Colorado River Basin, 63 STAT. 31 (1949); Montana-North Dakota-Wyoming, Yellowstone River, 65 STAT. 663 (1951). Here again, apart from the protection of existing uses (see Appendix D), the factors that have led to the particular allocations ordinarily do not appear in the compact. The Yellowstone River Compact, however, authorizes an interstate commission to recommend changes in allocations which the commission finds to be just and equitable, on the basis, among other factors, of priorities of water rights, acreage irrigated, acreage irrigable by existing works and potentially irrigable lands.

APPENDIX A

REVIEW OF GOVERNMENTAL THEORIES AND PRACTICES OF THE UNITED STATES, CHILE, AUSTRIA AND INDIA

United States

United States Attorney General Harmon in 1895 rendered an opinion, apropos a dispute with Mexico about the waters of the Rio Grande, that "the rules, principles, and precedents of international law impose no liability or obligation upon the United States." 21 OPS. ATT'Y GEN. 267 (1895). This opinion was rendered some years before the first decision of the United States Supreme Court on the subject; the Supreme Court has utterly disowned such a theory.

For half a century this country continued, in diplomatic negotiations both with Mexico and with Great Britain (for Canada), to assert from time to time a right to do as it wished with the waters within its territory. But its treaties with these two nations, (Smith, at 168, 170) made in 1906 and 1909 respectively, while formally reserving a right to assert this doctrine, incorporated concessions quite inconsistent with it. The United States agreed to deliver to Mexico stated quantities of water, and undertook the whole cost of the works necessary to assure such deliveries. The treaty with Great Britain provided in some detail for the regulation of the border lakes, for the division of supplies of certain rivers, and in other cases for giving to individual riparians in the downstream nation the rights provided by domestic law of the upstream nation. This treaty was so framed as to exclude from its terms the controversial diversion of water from Lake Michigan by the Chicago Drainage District, and to that extent may be said to have preserved Attorney General Harmon's position. While the controversy about this diversion persisted for many years, it has by now become largely moot because the United States Supreme Court, at suit of other riparian states, has imposed on the Drainage District limitations which go far toward meeting such limitations as derive from international law. *Wisconsin* v. *Illinois*, 278 U.S. 367 (1929), 281 U.S. 179 (1930), 289 U.S. 395 (1933). Smith (at 52) suggests, however, that compensation for past damage is called for.

In 1944 the United States entered into a further treaty with Mexico by which the waters of the Rio Grande and the Colorado Rivers were specifically apportioned between the two nations, and a joint commission was charged with recommending an equitable distribution of the waters of the Tiajuana River. 59

STAT. 1219 (1945). In recommending ratification of this treaty of 1944, the U.S. Secretary of State said that it "must be realized that each country owes to the other some obligation with respect to the waters of these international streams." *Hearings before the Committee on Foreign Relations on Treaty with Mexico Relating to the Utilization of the Waters of Certain Rivers*, 79th Cong., 1st Sess., Part 1, 19 (1945). The Secretary added that:

> "until this obligation is recognized and defined, there must inevitably be unrest and uncertainty in the communities served by [these international streams] — a condition which becomes more serious with the increasing burden of an expanding population dependent on the waters of these streams."

The Assistant Secretary added that the doctrine of unlimited rights in the upstream riparian "is hardly the kind of legal doctrine that can be seriously urged in these times." *Hearings, supra*, Part 5, at 1762. A witness from the Legal Adviser's office of the State Department testified that it was, to say the least, extremely doubtful if Mexico sought arbitration of its demand for additional water from the Colorado that the United States could maintain successfully the position taken by Attorney General Harmon. This witness, Mr. Benedict English, a member of the Department of State legal staff, appeared before the Senate Committee conducting the hearings to discuss the obligations of the United States in the absence of a treaty. In order to avoid embarrassment to the United States in case the treaty was not ratified by the Senate, his statement was presented as representing only his personal view, but it is evident from the record of the hearings, particularly the statements of the Secretary of State and the Assistant Secretary, that his statement represented the view of the State Department. Mr. English summed up his testimony as follows:

> "In conclusion, we respectfully submit the following:
>
> "First, the contention that under the Senate reservation to the 1929 inter-American arbitration treaty the United States can properly refuse to arbitrate any matter which it does not desire to arbitrate, is unsound and unsupportable.
>
> "Second, the contention that under that treaty the United States can properly refuse to arbitrate a demand by Mexico for additional waters of the Colorado is, to say the least, extremely doubtful, particularly when the Harmon opinion is viewed in the light of the following:
>
> "(a) The practice of states as evidenced by treaties between various countries, including the United States, providing for the equitable apportionment of waters of international rivers.
>
> "(b) The decision of domestic courts giving effect to the doctrine of equitable apportionment, and rejecting, as between the States, the Harmon doctrine.
>
> "(c) The writing of authorities on international law in opposition to the Harmon doctrine.
>
> "(d) The Trail smelter arbitration, to which we referred." *Hearings, supra*, Part 5, at 1751.

In the course of the Senate consideration of this treaty, the Attorney General of California, citing the Harmon doctrine, contended that the United States had conceded too much to Mexico. Frank Clayton, Counsel for the United States section of the International Boundary Commission, answered:

> " . . . Attorney-General Harmon's opinion has never been followed either by the United States or by any other country of which I am aware. . . . I have made an attempt to digest the international treaties on this subject . . . in all those I have been able to find, the starting point seemed to be the protection of the existing uses in both the upper riparian country and the lower riparian country, without regard to asserting the doctrine of exclusive territorial sovereignty. Most of them endeavor to go further than that and to make provision for expansion in both countries, both upper and lower, within the limits of the available supply." *Hearings, supra*, Part 1, at 97-98.

The United States is now asserting rights in the Columbia and Kootenay Rivers, as against proposed diversions in Canada, quite inconsistent with Attorney General Harmon's opinion. Statement of Len Jordan, Chairman United States Section, International Joint Commission, Oct. 4, 1955.

These statements brought the official professions of the United States in line with its actions, and in line with the decisions of the United States Supreme Court and with preponderant opinion elsewhere in the world.

Chile

Chile seems to have asserted, in the Rio Mauri dispute in the early 1920's, that it had unlimited right to take the water of a non-navigable river within its borders. According to Smith (at 68), the amount of water involved in the dispute and the injury to Bolivia were insignificant. In 1929 the waters in question were returned to Peru, along with some Peruvian territory which Chile was administering as a mandatory power. At that time Chile allowed the termination of the concession

it had granted to a sugar company to utilize the waters of the Mauri river to the extent of impairing the proper irrigation of some farmlands on a Bolivian plateau. As between Chile and Bolivia the dispute thus became moot.

But on the occasion of the settlement of the Chilean-Peruvian dispute over the Tacna-Arica region, which includes the Mauri river, Chile did not stand fast on her theoretical support of the doctrine of absolute sovereign rights. On May 15, 1929 Chile accepted a settlement consistent with a recognition of existing international duties. This settlement expressly provided that:

> ". . . the canals of Uchusuma and Mauri, also known as Azucarero, shall remain the property of Peru, with the understanding, however, that wherever the canals pass through Chilean territory they shall enjoy the most complete servitude in perpetuity in favor of Peru. This servitude includes the right to widen the actual canals, change their course, and appropriate all waters that may be collectible in their passage through Chilean territory." 23 AM. J. INT'L L. 183 (Supp. 1929).

The above language is part of the first article of the Stipulations suggested by the President of the United States who was acting as good officer in the dispute. Chile and Peru accepted the proposal in its entirety on the day it was submitted. The agreement is all the more remarkable in that it establishes a true case of a servitude, rare even in public international law. The old Roman Law type of servitudes, often maintained in civil law systems, were based on the idea that *"Servitus in faciendo consistere nequit."* The Roman Law type of servitudes is said to have been adopted by the law of nations. See 1 OPPENHEIM, INTERNATIONAL LAW 540, n.4 (8th ed., Lauterpacht, 1955). Yet Peru was given the right to perform positive acts in a foreign country for the preservation and utilization of her water supplies.

Austria

Austria appears lately to have asserted, of continuous though not of boundary rivers, that waters within its boundaries were at its "entire disposal"; but it coupled the assertion with a declaration of willingness to consider objections "on legal, technical or economic grounds" of the lower riparian. ECE REPORT, at 51. In 1954, Austria signed a treaty with Yugoslavia concerning the River Drava, of which Professor Eagleton has said that it "does not bother with claims to sovereignty, but comes to the point, setting the methods and conditions for dealing with their common problem." Eagleton, *The Use of the Waters of International Rivers,* 33 CAN. B. REV. 1021 (1955).

Austria offers an interesting example of the lack of conviction when absolute sovereign rights are claimed. In 1923, in an agreement with Germany acting on behalf of Bavaria, concerning the impounding and diversion of the waters of the lower Lech, Austria abandoned her support of the principle of unrestricted sovereignty. In that case, as a downstream country, Austria claimed the right to subject alterations in the river flow by the upper riparian to her prior agreement, and to subject the latter to a series of other obligations as well. ECE REPORT, at 130-131.

India

India asserted in 1948, six months after Partition, that it was legally entitled to cut off from West Pakistan all waters of the Indus River Basin that flow directly from India into Pakistan. Since 1952 it has, however, participated in negotiations with Pakistan under the good offices of the International Bank for Reconstruction and Development. The parties have agreed that the immediate objective is "to work out, and the ultimate objective is to carry out, specific engineering measures by which the supplies effectively available to each country will be increased substantially beyond what they have ever been." Agreement set forth in President Black's letter of March 13, 1952. India has accepted in principle a proposal of the Bank that works necessary to replace supplies for existing beneficial uses in Pakistan, historically received from rivers flowing from India, should be completed with funds to be furnished by India before the supplies are withheld. The proposal and terms of reference for the present negotiations are set forth in Press Release No. 380 of the World Bank, dated December 10, 1954.

The issues between India and Pakistan are now the subject of confidential negotiations. I shall refrain from any further description of the conflicting claims, or discussion of the significance of the position put forward by India.

A statement of obligations of riparian states as viewed in the Sub-Continent, apart from the existing dispute between India and Pakistan, is set out in the report of the Rau Commission quoted in Appendix C.

APPENDIX B

DECISION OF THE TRAIL SMELTER ARBITRAL TRIBUNAL, 35 AM. J. INT'L L. 684 (1941)

By convention between the United States and Canada, it was agreed to arbitrate certain questions arising out of the operation by a private corporation of a smelter at Trail, B.C., near the United States boundary, resulting in the discharge of sulphur dioxide and consequent injury to property in the State of Washington. The tribunal consisted of Charles Warren of Massachusetts, Robert A. E. Greenshields of the Province of Quebec, and Jan Frans Hostie of Belgium.

Canada had by this same convention, conceded liability for past injuries, and the tribunal first undertook to assess damages on this score. 33 AM. J. INT'L L. 182 (1939). With respect to the future, however, the tribunal deemed itself required by the terms of reference to determine *de novo* whether "the Trail Smelter should be required to refrain from causing damage in the State of Washington," and if so, to what extent. Since the convention contained a reference to the law of the United States as well as to international law, it is worth observing that this dual reference caused no difficulty since, as the tribunal said:

> "the law followed in the United States in dealing with the quasi-sovereign rights of the States of the Union, in the matter of air pollution, whilst more definite, is in conformity with the general rules of international law." 35 AM. J. INT'L. L. 684, 713.

In the conclusion of this portion of its decision, moreover, the tribunal stated explicitly:

> "Considering the circumstances of the case, the Tribunal holds that the Dominion of Canada is responsible in international law for the conduct of the Trail Smelter. Apart from the undertakings in the Convention, it is, therefore, the duty of the Government of the Dominion of Canada to see to it that this conduct should be in conformity with the obligation of the Dominion under international law as herein determined." *Id.*, at 716-717.

In its discussion of the substantive issue the tribunal said:

> "No case of air pollution dealt with by an international tribunal has been brought to the attention of the Tribunal nor does the Tribunal know of any such case. The nearest analogy is that of water pollution. But, here also, no decision of an international tribunal has been cited or has been found.
>
> "There are, however, as regards both air pollution and water pollution, certain decisions of the Supreme Court of the United States which may legitimately be taken as a guide in this field of international law, for it is reasonable to follow by analogy, in international cases, precedents established by that court in dealing with controversies between States of the Union or with other controversies concerning the quasi-sovereign rights of such States, where no contrary rule prevails in international law and no reason for rejecting such precedents can be adduced from the limitations of sovereignty inherent in the Constitution of the United States." *Id.*, at 714.

The tribunal then summarized the cases of *Missouri* v. *Illinois*, 200 U.S. 496 (1906); *New York* v. *New Jersey*, 256 U.S. 296 (1921); *New Jersey* v. *New York City*, 283 U.S. 473 (1931); and on the subject of air pollution, *Georgia* v. *Tennessee Copper Co.*, 206 U.S. 230 (1907), 237 U.S. 474 (1915). Referring to these cases, and to a decision of the Federal Court of Switzerland in a suit between cantons relating to a "shooting establishment", the tribunal concluded:

> "The Tribunal, therefore, finds that the above decisions, taken as a whole, constitute an adequate basis for its conclusions, namely, that, under the principles of international law, as well as of the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties of persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence." *Id.*, at 716.

APPENDIX C

SUMMARY OF THE WORK OF INTERNATIONAL BODIES IN THE FIELD OF INTERNATIONAL RIVER LAW

The Madrid Declaration of 1911

The first step in the concerted effort of international lawyers to outline the tenets of international river law was taken by the Institut de Droit International at its Congress of 1910 when one of the members was entrusted with the task of presenting a report to the Congress of Madrid in 1911, for the purpose of "determining the rules of international law relating to international rivers from the point of view of the utilization of their energy." ECE REPORT, at 46. The report was not confined to hydro-electric uses and contemplated "general exploitation" as well. (The report is published in 24 ANNNUAIRE DE L'INSTITUT DE DROIT INTERNATIONAL 170 [1911]). The final declaration adopted by the Conference is preceded by general considerations which affirm the physical interdependence of riparian states in such a way as to exclude a regime of complete autonomy on the part of any state in the exploitation of water resources.

The rules laid down at the Conference distinguish between boundary waters and waters which traverse the borders of more than one state. In the first case,

> " . . . neither of these States may, without the consent of the other, . . . make or allow individuals, corporations etc. to make alterations therein detrimental to the bank of the other State. On the other hand, neither State may, on its own territory, utilize or allow the utilization of the water in such a way as seriously to interfere with its utilization by the other State or by individuals, corporations etc. thereof." ECE REPORT, at 261.

Further,

> "When a stream traverses successively the territories of two or more States:
>
> 1. The point where this stream crosses the frontiers of two States, whether naturally, or since time immemorial, may not be changed by establishment of one of the States without the consent of the other." *Ibid.*

Pollution of the waters was then forbidden. And under article 3: "No establishment . . . may take so much water that the . . . utilisable or essential character of the stream, shall, when it reaches the territory downstream, be seriously modified." *Id.*, at 262. The right of navigation was declared inviolate under any circumstances, and states were also forbidden from causing the flooding of upstream countries. A general recommendation for the appointment of permanent joint commissions charged with the duty of rendering opinions when serious damages to some state might ensue from proposed works, closes the declaration.

It is to be noticed that these skeleton rules have greatly influenced the substance of many water treaties and agreements entered into since 1911. *Id.*, at 46. Nevertheless, no effort was made to solve the problem of distribution of international river resources, and, taken literally, the declaration of Madrid would seem to sanction even unreasonable refusals of lower riparian states to consent to developments upstream. Further, as might be expected, the supremacy of navigational uses reigned still unchallenged.

On the positive side we may say that the recognition of existing international duties and necessity of previous agreement, established at Madrid, have been uniformly respected in the actual practice of states.

The full text of the Madrid Declaration of 1911 follows:

I. When a stream forms the frontier of two States, neither of these States may, without the consent of the other, and without special and valid legal title, make or allow individuals, corporations, etc. to make alterations therein detrimental to the bank of the other State. On the other hand, neither State may, on its own territory, utilize or allow the utilization of the water in such a way as seriously to interfere with its utilization by the other State or by individuals, corporations, etc. thereof.

The foregoing provisions are likewise applicable to a lake lying between the territories of more than two States.

II. When a stream traverses successively the territories of two or more States:

1. The point where this stream crosses the frontiers of two States, whether naturally, or since time immemorial, may not be changed by establishments of one of the States without the consent of the other;

2. All alterations injurious to the water, the emptying therein of injurious matter (from factories, etc.) is forbidden;

3. No establishment (especially factories utilizing hydraulic power) may take so much water that the constitution, otherwise called the utilisable or essential character of the stream, shall, when it reaches the territory downstream, be seriously modified;

4. The right of navigation by virtue of a title recognized in international law may not be violated in any way whatever;

5. A State situated downstream may not erect or allow to be erected within its territory constructions or establishments which would subject the other State to the danger of inundation;

6. The foregoing rules are applicable likewise to cases where streams flow from a lake situated in one State, through the territory of another State, or the territories of other States;

7. It is recommended that the interested States appoint permanent joint commissions, which shall render decisions, or at least shall give their opinion, when, from the building of new establishments or the making of alternations in existing establishments, serious consequences might result in that part of the stream situated in the territory of the other State.

The Second International Conference of Communication and Transit Held at Geneva in 1923

With a view to seeking ways of obtaining the maximum benefits from available resources of international rivers, the Geneva Convention laid down certain principles which were to guide states in their efforts to harness and utilize waters of common interest. A number of Latin American countries participated officially in the Conference, *viz.*, Brazil, Chile, Columbia, Uruguay and Venezuela; see SOSA-RODRIGUEZ, LE DROIT FLUVIAL INTERNATIONAL ET LES FLEUVES DE L'AMERIQUE LATINE 107 (1935).

The recognition of limitations imposed by existing international law appears unequivocally from the statement in Article I to the effect that states are free to carry out in their territory operations for the development of hydraulic power "within the limits of international law". ECE REPORT, at 271. Joint studies in order to arrive at solutions most favorable to the interests of the states concerned as a whole are prescribed. And projected schemes are to pay due regard to any works already existing, under construction or projected. The Madrid Declaration's seemingly absolute prohibition against upper riparians undertaking construction which might alter the regime of the waters was superseded at Geneva by the principle of reasonableness, and of the necessity of negotiations whenever a state "desires to carry out operations . . . which might cause serious prejudice to any other Contracting State . . .". *Id.*, at 272.

In a discussion of the Geneva Convention, the Rau Commission (to which further reference will be made) remarked "if we may regard this Convention as typical, it would seem to be an international recognition of the general principles that inter-State rivers are for the general benefit of all the States through which they flow irrespective of political frontiers." I Report of the Indus (Rau) Commission 22 (1942).

The Convention was entered into by Austria, Belgium, the British Empire (with New Zealand), Brazil, Chile, Denmark, the Free City of Danzig, France, Greece, Hungary, Italy, Lithuania, Poland, Yugoslavia, Siam and Uruguay. It has been ratified or adhered to by the following states: Great Britain (with various colonies), Denmark, Greece, New Zealand, Siam, Newfoundland, Hungary, Iraq, Panama and Danzig. It appears in 36 L. N. T. S. 77. The full text of the Convention follows:

Article 1.

The present Convention in no way affects the right belonging to each State, within the limits of international law, to carry out on its own territory any operations for the development of hydraulic power which it may consider desirable.

Article 2.

Should reasonable development of hydraulic power involve international investigation, the Contracting States concerned shall agree to such investigation, which shall be carried out conjointly at the request of any one of them with a view to arriving at the solution most favourable to their interests as a whole, and to drawing up, if possible, a scheme of development, with due regard for any works already existing, under construction, or projected.

Any Contracting State desirous of modifying a programme of development so drawn up shall, if necessary, apply for a fresh investigation, under the conditions laid down in the preceding paragraph.

No State shall be obliged to carry out a programme of development unless it has formally accepted the obligation to do so.

Article 3.

If a Contracting State desires to carry out operations for the development of hydraulic power, partly on its own territory and partly on the territory of another Contracting State or involving alterations on the territory of another Contracting State, the States concerned shall enter into negotiations with a view to the conclusion of agreements which will allow such operations to be executed.

Article 4.

If a Contracting State desires to carry out operations for the development of hydraulic power which might cause serious prejudice to any other Contracting State, the States concerned shall enter into negotiations with a view to the conclusion of agreements which will allow such operations to be executed.

Article 5.

The technical methods adopted in the agreements referred to in the foregoing articles shall, within the limits of the national legislation of the various countries, be based exclusively upon considerations which might legitimately be taken into account in analogous cases of development of hydraulic power affecting only one State, without reference to any political frontier.

Article 6.

The agreements contemplated in the foregoing articles may provide, amongst other things, for:

(a) General conditions for the establishment, upkeep and operation of the works;
(b) Equitable contributions by the States concerned towards the expenses, risks, damage and charges of every kind incurred as a result of the construction and operation of the works, as well as for meeting the cost of upkeep;
(c) The settlement of questions of financial co-operation;
(d) The methods for exercising technical control and securing public safety;
(e) The protection of sites;
(f) The regulation of the flow of water;
(g) The protection of the interests of third parties;
(h) The method of settling disputes regarding the interpretation or application of the agreements.

Article 7.

The establishment and operation of works for the exploitation of hydraulic power shall be subject, in the territory of each State, to the laws and regulations applicable to the establishment and operation of similar works in that State.

Article 8.

So far as regards international waterways which, under the terms of the general Convention on the Regime of Navigable Waterways of International Concern, are contemplated as subject to the provisions of that Convention, all rights and obligations which may be derived from agreements concluded in conformity with the present Convention shall be construed subject to all rights and obligations resulting from the general Convention and the special instruments which have been or may be concluded, governing such navigable waterways.

Article 9.

This Convention does not prescribe the rights and duties of belligerents and neutrals in time of war. The Convention shall, however, continue in force in time of war so far as such rights and duties permit.

Article 10.

This Convention does not entail in any way the withdrawal of facilities which are greater than those provided for in the Statute and which have been granted to international traffic by rail under conditions consistent with its principles. This Convention also entails no prohibition of such grant of greater facilities in the future.

Article 11.

The present Convention does not in any way affect the rights and obligations of the Contracting States arising out of former conventions or treaties on the subject-matter of the present Convention, or out of the provisions on the same subject-matter in general treaties, including the Treaties of Versailles, Trianon and other treaties which ended the war of 1914-18.

Article 12.

If a dispute arises between Contracting States as to the application or interpretation of the present Statute, and if such dispute cannot be settled either directly between the Parties or by some other amicable method of procedure, the Parties to the dispute may submit it for an advisory opinion to the body established by the League of Nations as the advisory and technical organizations of the Members of the League in matters of communication and transit, unless they have decided or shall decide by mutual agreement to have recourse to some other advisory, arbitral or judicial procedure.

The provisions of the preceding paragraph shall not be applicable to any State which represents that the development of hydraulic power would be seriously detrimental to its national economy or security.

Article 13.

It is understood that this Convention must not be interpreted as regulating in any way rights and obligations inter se of territories forming part of or placed under

the protection of the same sovereign State, whether or not these territories are individually Contracting States.

Article 14.

Nothing in the preceding articles is to be construed as affecting in any way the rights or duties of a Contracting State as Member of the League of Nations.

Article 15.

The present Convention, of which the French and English texts are both authentic, shall bear this day's date, and shall be open for signature until October 31st, 1924, by any State represented at the Conference of Geneva, by any Member of the League of Nations and by any States to which the Council of the League of Nations shall have communicated a copy of the Convention for this purpose.

Article 16.

The present Convention is subject to ratification. The instruments of ratification shall be deposited with the Secretary-General of the League of Nations, who shall notify their receipt to every State signatory of or acceding to the Convention.

Article 17.

On and after November 1st, 1924, the present Convention may be acceded to by any State represented at the Conference of Geneva, by any Member of the League of Nations, or by any State to which the Council of the League of Nations shall have communicated a copy of the Convention for this purpose.

Accession shall be effected by an instrument communicated to the Secretary-General of the League of Nations to be deposited in the archives of the Secretariat. The Secretary-General shall at once notify such deposit to every State signatory of or acceding to the Convention.

Article 18.

The present Convention will not come into force until it has been ratified in the name of three States. The date of its coming into force shall be the ninetieth day after the receipt by the Secretary-General of the League of Nations of the third ratification. Thereafter, the present Convention will take effect in the case of each Party ninety days after the receipt of its ratification or of the notification of its accession.

In compliance with the provisions of Article 18 of the Covenant of the League of Nations, the Secretary-General will register the present Convention upon the day of its coming into force.

Article 19.

A special record shall be kept by the Secretary-General of the League of Nations showing, with due regard to the provisions of Article 21, which of the Parties have signed, ratified, acceeded to or denounced the present Convention. This record shall be open to the Members of the League at all times; it shall be published as often as possible, in accordance with the directions of the Council.

Articlet 20.

Subject to the provisions of Article 11 above, the present Convention may be denounced by any Party thereto after the expiration of five years from the date when it came into force in respect of that Party. Denunciation shall be effected by notification in writing addressed to the Secretary-General of the League of Nations. Copies of such notification shall be transmitted forthwith by him to all the other Parties, informing them of the date on which it was received.

A denunciation shall take effect one year after the date on which the notification thereof was received by the Secretary-General and shall operate only in respect of the notifying State.

Article 21.

Any State signing or adhering to the present Convention may declare, at the moment either of its signature, ratification or accession, that its acceptance of the present Convention does not include any or all of its colonies, overseas possessions, protectorates, or overseas territories, under its sovereignty or authority, and may subsequently accede, in conformity with the provisions of Article 17, on behalf of any such colony, overseas possession, protectorate or territory excluded by such declaration.

Denunciation may also be made separately in respect of any such colony, overseas possession, protectorate or territory, and the provisions of Article 20 shall apply to any such denunciation.

Article 22.

A request for the revision of the present Convention may be made at any time by one-third of the Contracting States.

In faith whereof the above-named plenipotentiaries have signed the present Convention.

DONE at Geneva the ninth day of December, one thousand nine hundred and twenty-three, in a single copy, which shall remain deposited in the archives of the Secretariat of the League of Nations.

The Seventh Inter-American Conference Held at Montevideo in 1933

This Conference had the benefit of four notable reports. There is one report by the Permanent Committee on the Codification of International Law of Rio de Janeiro, a report of a committee known as the Fifth Sub-Committee on Industrial and Agricultural Uses of International Rivers, a third report by the Uruguayan delegate Mr. Teofilo Piñeyro Chain and a fourth report by the Argentine delegate Mr. Isidoro Ruiz Moreno. All reports were in agreement with a fundamental principle which, as stated in the report of the Fifth Sub-Committee, is "the right of every riparian state to the use of international waters for industrial, agricultural or economic ends in general with the obligation of indemnifying, repairing or compensating the damages occasioned by the exploitation of other riparian or co-jurisdictional states of the same waters." FIRST, SECOND AND EIGHTH COMMITTEES, MINUTES AND ANTECEDENTS 178 (1933). The members of the conference adopted a declaration which has come to be known popularly as the Declaration of Montevideo. This is a document of the greatest importance not only to the states whose representatives joined in adopting this declaration, but to the student of practices accepted by states as binding under international law. While the Declaration of Montevideo contains provisions that might be described as legislative or agreed rules, it is fundamentally a statement of the opinion of the members as to the obligations of states apart from treaty.

The Uruguayan delegate who wrote the report of the Fifth Sub-Committee stated during the discussions that the principles of the declaration "se estiman de práctica en el Derecho, y que ya los ha tenido en cuenta el Brasil, cuya red fluvial abarca la mayor parte de la America del sur, así como también la Argentina y su propio país, el Uruguay." VOLPI, UTILIZACION DE RIOS INTERNACIONALES PARA LA PRODUCCION DE ENERGIA HIDROELECTRICA Y OTROS FINES, INDUSTRIALES O AGRICOLAS, (Consejo Interamericano de Comercio y Producción, Montevideo, 1946).

The significance of the Montevideo and other international conferences for the solution of international river problems in Latin America has been appraised in the following terms by Mr. Carlos A. Volpi, the rapporteur of the Inter-American Council of Commerce and Production: "Dentro de los antiguos conceptos de la soberanía, no puede ningún Estado aislarse y paralizar el propósito de approvechar esos recursos naturales, y a ello se debe la frecuencia de los Congress y Conferencias Internacionales, cuyas conclusiones por su sola fuerza moral, se hacen, puede decirse, imperativas como expresión de los principios jurídicos, económicos y técnicos mas adecuados para su realización." Volpi, *op. cit. supra,* at 26.

The delegations of Mexico and of the United States failed to vote in favor of the declaration, though during the discussions the Mexican delegate stated that he did not wish to discourage approval by the Committee. FIRST, SECOND AND EIGHTH COMMITTEES, MINUTES AND ANTECEDENTS 146 (1933). The actual subsequent practice of both governments has been completely in accord with the spirit of the Montevideo declaration. This seems to justify the following comments on the present status of those countries' failure to endorse the declaration, which comments also very likely explain the underlying reasons for avoiding commitments on the part of the two governments in question:

> "Parece lógico suponer que las reservas formuladas en 1933 por México y los Estados Unidos, han quedado desvanecidas con la firma del tratado de 1945 que resuelve los problemas de aprovechamiento de las aguas de los ríos Bravo y Colorado, hecho que ha venido a dar la razón al Delegado Argentino en la Séptima Conferencia Internacional Americana, cuando advirtió que las objeciones formuladas por México y los Estados Unidos sólo se basaban en el deseo de dejar a salvo los casos de caracter local que en aquel entonces tenían planteados." Volpi, *op. cit. supra,* at 18, n. 1.

The full text of the Declaration of Montevideo follows:

"The Seventh International Conference of American States, DECLARES:

1. In case that, in order to exploit the hydraulic power of international waters for industrial or agricultural purposes, it may be necessary to make studies with a view to their utilization, the States on whose territories the studies are to be carried on, if not willing to make them directly, shall facilitate by all means the making of such studies on their territories by the other interested State and for its account.

2. The States have the exclusive right to exploit, for industrial or agricultural purposes, the margin which is under their jurisdiction, of the waters of international rivers. This right, however, is conditioned in its exercise upon the necessity of not injuring the equal right due to the neighbouring State over the margin under its jurisdiction.

In consequence, no State may, without the consent of the other riparian State, introduce into water courses of an international character, for the industrial or agricultural exploitation of their waters, any alteration which may prove injurious to the margin of the other interested State.

3. In the cases of damage referred to in the foregoing article an agreement of the parties shall always be necessary. When damages capable of repair are concerned, the works may only be executed after adjustment of the incident regarding indemnity, reparation or compensation of the damages, in accordance with the procedure indicated below.

4. The same principles shall be applied to successive rivers as those established in Articles 2 and 3, with regard to contiguous rivers.

5. In no case either where successive or where contiguous rivers are concerned, shall the works of industrial or agricultural exploitation performed cause injury to the free navigation thereof.

6. In international rivers having a successive course the works of industrial or agricultural exploitation performed shall not injure free navigation on them but, on the contrary, try to improve it in so far as possible. In this case, the State or States planning the construction of the works shall communicate to the others the result of the studies made with regard to navigation, to the sole end that they may take cognizance thereof.

7. The works which a State plans to perform in international waters shall be previously announced to the other riparian or co-jurisdictional States. The announcement shall be accompanied by the necessary technical documentation in order that the other interested States may judge the scope of such works, and by the name of the technical expert or experts who are to deal, if necessary, with the international side of the matter.

8. The announcement shall be answered within a period of three months, with or without observations. In the former case, the answer shall indicate the name of the technical expert or experts to be charged by the respondent with dealing with the technical experts of the applicant, and shall propose the date and place for constituting the MIXED TECHNICAL COMMISSION of technical experts from both sides to pass judgment on the case. The Commission shall act within a period of six months, and if within this period no agreement has been reached, the member shall set forth their respective opinions, informing the governments thereof.

9. In such cases, and if it is not possible to reach an agreement through diplomatic channels, recourse shall be had to such procedure of conciliation as may have been adopted by the parties beforehand or, in the absence thereof, to the procedure of any of the multilateral treaties or conventions in effect in America. The tribunal shall act within a period of three months, which may be extended, and shall take into account, in the award, the proceedings of the Mixed Technical Commission.

10. The parties shall have a month to state whether they accept the conciliatory award or not. In the latter case and at the request of the interested parties the disagreement shall then be submitted to arbitration, the respective tribunal being constituted by the procedure provided in the Second Hague Convention for the peaceful solution of international conflicts.

The First Regional Conference of the "Plata" River System, Held at Montevideo in 1941

Delegates from Argentina, Bolivia, Brazil, Paraguay and Uruguay met at Montevideo in 1941 in order to discuss the technical problems involved in developing further the possibilities of the "Plata" river for navigational as well as non-navigational uses. Observers were sent by Chile, Peru and the United States. Among the several resolutions adopted, one recommended the negotiation of treaties for the industrial and agricultural uses of international rivers on the basis of the principles proclaimed by the Seventh Inter-American Conference of 1933. INFORME DE LA SECRETARIA DE LA DELEGACION DE BOLIVIA, CONFERENCIA REGIONAL DE LOS PAISES DEL PLATA (Montevideo 7 de enero-6 de febrero de 1941), Ministero de las Relaciones Exteriores de Bolivia, La Paz, 1941. Annex No. 34 of this work reproduces the resolution which reads in part: "La Conferencia Regional de los Paises del Plata resuelve: . . . Articulo II— Recomendar que los Estados representados, inspirados en los principios aprobados por la VII Conferencia Internacional Americana de Montevideo, celebren entresí Convenios sobre el uso industrial y agrícolas de estos ríos."

Statement of Principles Promulgated by the Rau Commission in 1939

In 1939 projected withdrawals from the Indus system of rivers occasioned complaints by downstream users. As a result six provinces and states of the Indian Sub-Continent appeared before a commission, officially termed the Indus Commission but more commonly known now as the Rau Commission, after the name of its distinguished Chairman Sir Benegal Rau, later a Judge of the International Court of Justice for India.

The first action of the Commission was to formulate a statement on the principles of law governing the rights of provinces and states with respect to the waters. This took the form of six basic principles upon which the participants were invited to comment. After study, all of the participants accepted these six principles, which were again enunciated in the final report of the Commission.

The six principles as stated for the Commission by Sir Benegal N. Rau read as follows:

> "Subject to correction in the light of what you may have to say, the following principles seem to emerge from the authorities:—
>
> (1) The most satisfactory settlement of disputes of this kind is by agreement, the parties adopting the same technical solution of each problem, as if they were a single community undivided by political or administrative frontiers. (Madrid Rules of 1911 and Geneva Convention, 1923, Articles 4 and 5).
>
> (2) If once there is such an agreement, that in itself furnishes the 'law' governing the rights of the several parties until a new agreement is concluded. (Judgment of the Permanent Court of International Justice, 1937, in the Meuse Dispute between Holland and Belgium.)
>
> (3) If there is no such agreement, the rights of the several Provinces and States must be determined by applying the rule of 'equitable apportionment', each unit getting a fair share of the water of the common river (American decisions).
>
> (4) In the general interests of the entire community inhabiting dry, arid territories, priority may usually have to be given to an earlier irrigation project over a later one: 'priority of appropriation gives superiority of right' (Wyoming *v.* Colorado, 259 U.S. 419, 459, 470).
>
> (5) For purposes of priority the date of a project is not the date when survey is first commenced but the date when the project reaches finality and there is a fixed and definite purpose to take it up and carry it through (Wyoming *v.* Colorado, 259 U.S. 419, 494, 495; Connecticut *v.* Massachusetts, 282, U.S. 660, 667, 673).
>
> (6) As between projects of different kinds for the use of water, a suitable order or precedence might be (i) use for domestic and sanitary purposes; (ii) use for navigation, and (iii) use for power and irrigation (Journal of the Society of Comparative Legislation, New Series, Volume XVI, No. 35, pages 6, 7)." I Report of the Indus (Rau) Commission 10-11 (1942).

The foregoing principles are significant in many respects. They constitute the view of the law applicable in every region of the world, including the Sub-Continent, of one of the greatest jurists of the Sub-Continent. These principles were unanimously accepted by the several states and provinces interested in the irrigation supplies of the Indus Basin. They were accepted in the conscious and express conviction that they constituted the legally controlling norms.

The principles accepted by the Commission, and the results of its deliberations, were subsequently followed in the negotiations leading to an agreement that was to govern the future allocation of river supplies between the parties. This agreement never came into full effect owing to the occurrence of Partition before certain financial differences were resolved.

The Work of the United Nations Organization

Through the enterprise of the United Nations Economic and Social Council, the question of the uses of international rivers was reviewed before and during 1952, with the result that a resolution providing for "International Co-Operation on Water Control and Utilization" was adopted. U.N. Doc. No. E/L.337/Rev. 1 and Rev. 1/Corr. 1. Resolution 471 (XIV), YEARBOOK OF THE U.N. 383-384 (1952). The work of the Economic and Social Council continues to this day, and it is hoped that eventually an international convention will be held to exchange information and experiences in the matter of co-ordinate development of international rivers.

As regards Latin American international river problems, the United Nations Economic Commission for Latin America has this year resolved that its Executive Secretariat "se ponga en contacto con los gobiernos de las naciones lationoamericanas a fin de conseguir que el aprovechamiento de los ríos y lagos, ubicados en cuencas hidrográficas internacionales, para la energía eléctrica, irrigación, navegación, y demás beneficios que puedan derivarse, se realice a través de una planificación adecuada, emprendida por comisiones técnicas internacionales." N.U. Cepal, "Informe annual al Consejo Económico Social Correspondiente at Período 15 V. 1956—29 V. 1957," (Doc. No. E/CN 12/451) at 144, Resolution No. 131.

Statement of Principles Adopted in 1956 by the International Law Association

This Association at its 1954 Conference in Edinburgh established a Committee to study and put forward a statement of principles upon which could be formulated rules of inter-

national law concerning the uses of waters of international rivers. At its Conference held at Dubrovnik in 1956 the Association had before it a first report of the Committee which had been circulated amongst the members, and a second report which was read at the Conference. In addition it had before it a note by Juraj Andrassy of Yugoslavia, a co-report by Jovan Paunovic, also of Yugoslavia, and a document which I prepared with the help of others commenting on the First Report of the International Committee; the last mentioned document contained revisions made in the light of comments by members of the Committee of the North American Branch of the International Law Association. There were also comments by Mr. S. M. Sikri, Advocate-General of the Punjab (India), a member of the International Committee who dissented from the conclusions of the First Report, observations on the comments of Mr. Sikri prepared for the International Committee by members of the Committee of the North American Branch and a note by Mr. Manzur Qadir, Barrister-at-Law (Lincoln's Inn), Senior Advocate, Supreme Court of Pakistan. These documents together with the resolution adopted at the Dubrovnik Conference have been brought together in a booklet entitled PRINCIPLES OF LAW GOVERNING THE USES OF INTERNATIONAL RIVERS, Library of Congress Catalog Card Number 57-10830.

The resolutions adopted at Dubrovnik take on added interest because of the dissent of Mr. Sikri and his revival of the contention in the opinion of Attorney General Harmon that a state may, as a matter of law, do as it chooses with waters of an international river system while they are under its authority. This view was rejected by unanimous vote. Among the seconders to the motion for adoption of the resolution was Mr. M. C. Setalvad, Attorney-General of India. He was, of course, acting in his individual capacity as a lawyer.

The resolution as adopted at the Dubrovnik Conference was settled by the Executive Council of the International Law Association in October 1956. The full text of the statement of principles adopted "as a sound basis upon which to study further the development of rules of international law with respect to international rivers" follows:

I An international river is one which flows through or between the territories of two or more states.

II A state must exercise its rights over the waters of an international river within its jurisdiction in accordance with the principles stated below.

III While each state has sovereign control over the international rivers within its own boundaries, the state must exercise this control with due consideration for its effects upon other riparian states.

IV A state is responsible, under international law, for public or private acts producing change in the existing regime of a river to the injury of another state, which it could have prevented by reasonable diligence.

V In accordance with the general principle stated in No. III above, the states upon an international river should in reaching agreements, and states or tribunals in settling disputes, weigh the benefit to one state against the injury done to another through a particular use of the water. For this purpose, the following factors, among others, should be taken into consideration:

(a) The right of each to a reasonable use of the water.
(b) The extent of the dependence of each state upon the waters of that river.
(c) The comparative social and economic gains accruing to each and to the entire river community.
(d) Pre-existent agreements among the states concerned.
(e) Pre-existent appropriation of water by one state.

VI A state which proposes new works (construction, diversion etc.) or change of previously existing use of water which might affect utilization of the water by another state must first consult with the other state. In case agreement is not reached through such consultation, the states concerned should seek the advice of a technical commission; and if this does not lead to agreement, resort should be had to arbitration.

VII Preventable pollution of water in one state which does substantial injury to another state renders the former state responsible for the damage done.

VIII So far as possible, riparian states should join with each other to make full utilization of the waters of a river, both from the viewpoint of the river basin as an integrated whole, and from the viewpoint of the widest variety of uses of the water, so as to assure the greatest benefit to all.

The resolution called for an enlargement of the Committee on International Law Governing the Uses of Waters of International Rivers and authorized it to re-examine the principles and widen the scope of its work. In a report to be heard in New York in 1958 together with comments of the various other national branches of the Association, the Committee of the North American Branch has suggested some textual and drafting changes in the statement of principles. Their suggested restatement is as follows:

I The following principles apply to any river system any part of which traverses or divides the territory of two or more states.

II A state is under a duty to refrain from violating the principles stated below and to exercise reasonable diligence in restraining persons within territories under its jurisdiction from such violations.

III States riparians of any river system to which these principles apply are entitled, and under an obligation, to share its benefits on a fair and reasonable basis amongst themselves and with non-riparian states that have become dependent upon such waters. In determining what is fair and reasonable, account is to be taken of rights arising out of agreements, judgments and awards, and out of established lawful and beneficial uses, and of such considerations as the possible future development of the river system, the extent of dependence of each state upon the waters in question and the comparative social and economic gains accruing, from the various possible uses of the waters in question, to each state and to the entire community dependent upon the waters.

IV A state which proposes new works, such as construction or diversion, or other change of previous existing use of any river system to which these principles apply, which might affect utilization of the waters of such system by another state, must first consult with the other state. In case agreement is not reached through such consultation, the states concerned should seek the advice of a technical commission; and if this does not lead to agreement, resort should be had to arbitration.

V Pollution by one state of any of the waters of any river system to which these principles apply which affects adversely the beneficial uses of another state in such waters renders the state which has caused or permitted the pollution responsible to the injured state for the harm done.

VI Insofar as possible, states should reach agreement under which they may make full utilization of the waters of any river system to which these principles apply, both from the viewpoint of the system as an integrated whole and from the viewpoint of all the existing and potential uses of the water, so as to assure the greatest benefit to all.

The Work of the Institut de Droit International

The organization which first gave impulse to the study of international river law has recently appointed a new Commission charged with the task of presenting to the Institut for acceptance a draft resolution defining the rules of international river law. Already the rapporteur of the Commission, Mr. Juraj Andrassy of Yugoslavia, has produced a preliminary paper for submission to the members of the Commission, in which he upholds the principles of limitations in the utilization of international waters, as a matter of existing international law. A well-documented account of the history and development of international river law is also contained in this paper, which should be of great assistance to the members of the Commission in formulating the principles of international law as they emerge from various acknowledged sources. M. Andrassy has circulated a list of questions of which the following are of especial interest:

V. Are there any rules governing the use of international waters to be found in existing international law?

VI. Should the work be confined to isolating the rules existing at present, or should rules *de jure condendo* be formulated?

VII. What principles and rules bearing on the subject can be isolated in positive international law?

VIII. In particular, what is thought of the following rules:

1. Every State has the right to make the greatest possible use of the waters which flow through or along its territory, provided that it respects the corresponding right of the States having an interest in the same waterway or river system, and subject to any limitation imposed by international law in general or by the limitations embodied in the following provisions in this draft.

2. No change may be made to an international waterway that results in appreciable damage to the territory of another State.

3. The foregoing notwithstanding, a riparian State may not raise an objection against the fact that another riparian State concerned derives advantages from the use of a common waterway on a basis of equality of rights. Equality of rights should be construed to mean that riparian States have an equal right to use the waters of such waterway in accordance with their needs.

4. Likewise, such objection may not have the effect of preventing a State concerned from benefitting to the greatest possible extent from the use of the existing waters, but the beneficiary State must ensure that the objecting State shall be able to derive the proportionate advantages to which it is entitled.

IX. Should it be mandatory for a State which intends to develop a waterway in which other States have an interest to request the consent of those States, and, if so, to what extent?

X. To what extent is the rule of the respect for acquired rights (priority of use) applicable?

XI. Should the foregoing rules be amended or completed by reference to equity, and, if so, what factors should be taken into account?

XII. If it is considered that all or any of the aforesaid rules are not rules in positive law, is it agreed that they should be proposed *de jure condendo?*

XIII. In the event of a conflict of incompatible interests, can an order of priority be established among the various methods of use? What order, if any, is considered appropriate?

XIV. Should the draft resolution embody in terms a recommendation to the States concerned to come to an agreement for the fuller concerted use of the waters naturally available to them and to contemplate the joint development of whole systems or parts of systems, if that seems likely to enable them to be better used? ANDRASSY, UTILIZATION DES EAUX INTERNATIONALES NON MARITIMES (EN DEHORS DE LA NAVIGATION) Institut de Droit International (1957).

APPENDIX D

THE PROTECTION OF EXISTING LAWFUL USES OF INTERNATIONAL RIVERS IN THE PRACTICE OF STATES

As a rule, the protection of uses, lawful when they came into existence, so long as they remain beneficial, has been treated as an absolute first charge upon the waters. If, for example, a nation has, without objection by other riparians, built a multipurpose dam and is operating a hydroelectric plant upon an international river, it will hardly be suggested that a study of potential uses of the river should be approached as though the dam were still in the planning stage and the economic and population development dependent on it had not yet taken place. Assuming that the dam was lawfully built, one would hardly balance equities or benefits *de novo* and, merely because he concluded that works of a different kind would have been more useful all around, order that the dam be deprived of its water supplies. Operation of the dam may be regulated reasonably in the interest of its and other uses, including new uses; but the existing uses of the dam cannot be destroyed for the benefit of new uses without an overriding public interest (such, for instance, as would warrant the exercise of eminent domain in municipal law) common to the fellow riparians, and then only with proper reparation to the community dependent upon the dam. The most frequent illustrations of this principle, both in judicial decisions and in conventional law, have had to do with uses of the water—primarily used for irrigation—that diminish substantially the quantity of water available for use by others. *Wyoming* v. *Colorado,* 259 U.S. 419, 470 (1922); *New Jersey* v. *New York,* 283 U.S. 336 (1931); *Colorado* v. *Kansas,* 320 U.S. 383, 394 (1943); *Nebraska* v. *Wyoming,* 325 U.S. 589, 608, 621-622 (1945); compare *Connecticut* v. *Massachusetts,* 282 U.S. 660, 672-673 (1931).

In an arbitral award in 1872, between Persia and Afghanistan, Sir Frederick Goldsmid stipulated that "no works are to be carried out on either side calculated to interfere with the requisite supply of water for irrigation on the banks of the Helmand." See I ST. JOHN, LOVETT AND SMITH, EASTERN PERSIA: AN ACCOUNT OF THE JOURNEYS OF THE PERSIAN BOUNDARY COMMISSION, 1870-71-72 Appendix B (1876). Subsequent differences have revolved around the extent of the existing uses, rather than around the principle that such uses should be protected.

The history of the Nile is replete with statements and agreements by upper riparians recognizing the entitlement of Egypt

to the flow necessary to maintain its established irrigation. As early as 1891 Italy had agreed with Great Britain not to construct on a tributary, the Atbara, "any work which might sensibly modify its flow into the Nile" (Smith, at 166); in 1902 Great Britain obtained agreement by Ethopia not to build, without British consent, "any work across the Blue Nile, Lake Tsana, or the Sobat, which would arrest the flow of their waters into the Nile" (*id.*, at 166-167); and in 1906, a similar agreement was made with the Congo Free State concerning two tributaries of Lake Albert (*id.*, at 168). Recent negotiations have not departed from this principle. In 1925, the British High Commissioner in the Sudan gave assurance to the Egyptian Foreign Minister that the British Government "have no intention of trespassing upon the natural and historic rights of Egypt in the waters of the Nile, which they recognize today no less than in the past." BRITISH TREATY SER., No. 17, p. 33 (1929). This assurance was reiterated in the exchange of notes of 1929 (Smith, at 212), and it was further agreed that no measures would be taken in British-controlled territory, without Egypt's agreement, "which would, in such manner as to entail any prejudice to the interests of Egypt, either reduce the quantity of water arriving in Egypt, or modify the date of its arrival, or lower its level." *Id.*, at 214. In recent discussions concerning the proposed Aswan High Dam the Sudanese Government, though questioning the projected allocation of the additional supplies to be made available, has expressly stated: "It is not disputed that Egypt has established a right to the volumes of water which she actually uses for irrigation. The Sudan has a similar right." "The Nile Waters Question" (Ministry of Irrigation and Hydro-Electric Power, Khartoum, December 1955) 13. That this is no self-serving declaration is evident from the fact that the Sudan fixes Egypt's "present established right" at 48 billion cubic meters, its own at 4 billion. *Id.*, at 5.

Diversions from the Rio Grande in New Mexico and Colorado, and resulting complaints by Mexico, led after years of diplomatic exchange and technical investigation to the treaty of 1906 which allocated to Mexico 60,000 acre-feet of water a year. Of this treaty the United States Section of the International Water Commission said in its report of March 22, 1930 (H.R. Doc. No. 359, 71st Cong., 2nd Sess. 14):

> "The water thus supplied for use in Mexico originates in the United States and is controlled by the Elephant Butte Dam, which was built and is maintained and operated entirely at the expense of the United States. The Mexicans of the Juarez Valley are thus protected in benefits of Rio Grande water to the full extent to which these were enjoyed before upstream diversions and control works interfered with the flow of the river past their lands."

With the further development of irrigation on both sides of the line, new difficulties arose with respect both to the lower Rio Grande and to the Colorado. Timm, *Water Treaty between the United States and Mexico*, 10 DEP'T STATE BULL. 282 (1944). These led, again after protracted negotiation, to the treaty of 1944, which

> "not only assures water for lands now under irrigation in both countries but also provides measures for the better utilization of the available supply, both for the present developments and for the greatest possible number of feasible future projects." *Id.*, at 292.

The parties expressly agreed, indeed, to construct jointly the dams needed on the lower Rio Grande "to ensure the continuance of existing uses and the development of the greatest number of feasible projects."

The treaty of 1909 between the United States and Great Britain, in stipulating an order of priority of the uses of United States-Canadian boundary waters, expressly provided that the priorities shall not apply to or disturb any existing uses of boundary waters on either side of the boundary. Smith, at 174. The specific allocation of the water of the St. Mary and Milk Rivers was so designed as to protect vested interests in Canada. McKay, *The International Joint Commission between the United States and Canada*, 22 AM. J. INT'L. L. 306 (1928).

The boundary treaties of 1866 between France and Spain expressly recognized existing uses for irrigation, for mills, and for domestic purposes. Boundary Treaty of Pyrenees, 14th July 1866, 56 BRITISH AND FOREIGN STATE PAPERS 212. The treaty of 1926 between Portugal and the Union of South Africa was designed in part to restore pre-existing uses which had been interfered with by silting of the channels. Smith, at 207. A convention between Switzerland and France in 1930 concerning a proposed power project provided for regulation to protect "the normal operation of downstream plants." ECE REPORT, at 104. Existing rights of "grazing, watering or cultivation" from waters of the Jordan were expressly preserved by an agreement between Palestine, Syria and Lebanon in 1926. Hirsch, *Utilization of International Rivers in the Middle East*, 50 AM. J. INT'L L. 81, 91 (1956). The Franco-British Convention of

1920 relating to the Middle East provided for protection of water interests of downstream areas. *Id.*, at 87. Turkey and Iraq agreed in 1946 to the erection in Turkey of works on the Tigris and Euphrates for "the maintenance of a regular water supply and the regulation of the water-flow." *Id.*, at 89. A convention between Roumania and Yugoslavia in 1931 provided for future agreements "to ensure that the hydrotechnical systems of canalization, damming, irrigation, drainage, etc. traversed by the new frontier line shall operate unchanged and in accordance with their original purposes." 135 L. N. T. S. 33 (1932-33). Similar provisions were made in the treaties of peace, after the First World War, with Austria and Hungary, to safeguard in the newly-divided states uses of water which had been established before the war and which now depended on sources in other states. 1 TREATIES OF PEACE,1919-1923 267, 457.

A stipulation limiting withdrawals by the upper riparian to those necessary to satisfy existing uses is found in a convention of 1881 between Persia and Russia, and a similar limitation was provided for by the Turco-Persian Boundary Delimitation Commission in 1914. Hirsch, *supra*, at p. 87.

In addition to these treaties which provide more or less specifically for the protection of existing uses, such protection is also provided by all the numerous treaties which stipulate against material or prejudicial alteration of the status quo without further agreement of the parties. See the following: Prussia-Netherlands, 1816 (Smith, at 160); Belgium-Netherlands, 1843 (*id.*, at 162); Belgium-Netherlands, 1863 (*ibid.*); Sweden-Norway, 1905 (*id.*, at 167); Germany-Lithuania, 1928 (*id.*, at 212); Lithuania-Poland, 1938 (ECE REPORT, at 149).

It is worthy of note that the treaty of 1905 between Sweden and Norway in speaking of the necessity for consent to a change in the river regime which might substantially modify the waters over a considerable area describes this as an understanding reached "in accordance with the general principles of international law". The full article in which this appeared reads as follows:

> "*In accordance with the general principles of international law* it is understood that the works mentioned in Article 1 [diversions, raising or lowering of water levels] cannot be carried out in either State except with the consent of the other, whenever such works, by affecting the waters situated in the other State, might result . . . in substantially modifying the waters over a considerable area." (Emphasis added). ECE REPORT, at 113-114.

Some interstate compacts expressly recognize, in one way or another, the necessity of protecting existing lawful and beneficial uses: Colorado-Nebraska, South Platte River, 44 STAT. 195 (1926); South Dakota-Wyoming, Belle Fourche River, 58 STAT. 94 (1944); Arizona-Colorado-New Mexico-Utah-Wyoming, Upper Colorado River Basin, 63 STAT. 31 (1949); Montana-North Dakota-Wyoming, Yellowstone River, 65 STAT. 663 (1951); New Mexico-Oklahoma-Texas, Canadian River, 66 STAT. 74 (1952). In some cases there is specific provision designed to protect lawful and beneficial existing uses in the event of certain future action, such as an exercise of federal jurisdiction: Colorado-Kansas-Nebraska, Republican River, 57 STAT. 86 (1943); South Dakota-Wyoming, Belle Fourche River, 58 STAT. 94 (1944). Compare Colorado-New Mexico-Texas, Rio Grande River, 53 STAT. 785 (1939). The Sabine River Compact (Louisiana-Texas, 68 STAT. 690 [1954]) protects existing lawful uses, but subject to the availability of supplies under the agreed inter-state apportionment; while the La Plata River Compact (Colorado-New Mexico, 43 STAT. 796 [1925]) provides for rotation of supplies among existing users when the water is very low—a provision upheld, as against a prior appropriator in the upstream state, in *Hinderlider* v. *La Plata Co.*, 304 U.S. 92 (1938).

It would appear from the material studied that most of the treaties concluded between the countries of South America have looked to the future development of a river and have not had to be focused on the protection of existing uses. The protest of Bolivia in the question of the river Mauri was, of course, grounded on the protection of existing uses. Similarly the solution recommended by the President of the United States to Chile and Peru with respect to the same river was grounded on the protection of existing uses. This was accepted by both Chile and Peru. See Appendix A to this paper. The prevalence of mixed commissions to be consulted before changes are made in the river regime and the principle of the necessity of consent to changes is, of course, a fundamental protection of the existing regime and uses. Mixed commissions are created or consent is required in the following Latin-American treaties: Brazil-Uruguay, 1933, 181 L.N.T.S. 69 (1937-1938); Brazil-United Kingdom, Exchange of Notes 1939, ECE REPORT at 147; Argentina-Paraguay, 1945, DEP'T STATE BULL. 642-43 (Oct. 21, 1945), REVISTA ARGENTINA DE DERECHO INTERNACIONAL, Tomo IX, No. 1, at 31-39 (1946); Argentina-Uruguay, 1946 (Agreement and Additional Protocol Relative to the Utilization of the Rapids of the Uruguay River in the Zone of Salto

Grande) PAN AMERICA 61 (Buenos Aires 1947); Dominican Republic-Haiti, 1929 (Treaty of Peace, Friendship and Arbitration) 105 L.N.T.S. 223 (1929); Guatemala-El Salvador, 1957; Bolivia-Peru, 1957.

The importance attached to existing uses naturally varies, because the degree of physical and economic dependence varies, as between arid and well-watered regions. But even in the latter, existing uses seem to be accorded first consideration. In less favored regions, not only are existing uses protected, but as between existing uses those first established ordinarily enjoy a priority over uses established later.

The counsel to the United States Section of the Mexican-United States International Boundary Commission testified in 1945 before the Senate of the United States:

> "I have made an attempt to digest the international treaties on this subject—or all that I could find. There may be more. I am not infallible. But in all those I have been able to find, the starting point seems to be the protection of existing uses in both the upper riparian country and the lower riparian country, without regard to asserting the doctrine of exclusive territorial sovereignty. Most of them endeavor to go further than that and to make provision for expansion in both countries, both upper and lower, within the limits of the available supply." *Hearings before the Senate Committee on Foreign Relations on Treaty with Mexico Relating to the Utilization of the Waters of Certain Rivers*, 79th Cong., 1st Sess., Part 1, 97-98 (1945).

I do not mean to suggest that existing uses should be allowed to impose a straitjacket on a river system and prevent its further development. That to which the beneficial user is entitled is the benefit, not the particular manner in which the water is received. Both the Nile Commission in 1925 and the Indus (Rau) Commission in 1942 took the position that, while existing irrigation dependent upon the annual flooding of the rivers must be protected, it should gradually be replaced by weir-controlled irrigation which would make it possible for the supplies that historically wasted to the sea to be impounded upstream for new uses. Although the floods were being put to beneficial use, the lower riparian was not considered entitled to receive its supplies in the form of a flood after weirs were constructed, in the case of the Indus, with financial assistance from the upper riparian. The rights of the existing uses were measured by the benefit, in this case the irrigation accomplished, and would be satisfied by the construction of works with which to achieve the same benefit from a regulated flow of the river. More supplies were thus made usable while the existing beneficial uses were preserved intact.

These and similar adjustments may sometimes be required in order to permit realization of the full potential value of the river to all of the nations concerned. But it still remains true that substantial protection of existing uses must be the matter of first consideration.

THE JURIDICAL STATUS OF INTERNATIONAL (NON-MARITIME) WATERS IN THE WESTERN HEMISPHERE

by Guillermo J. Cano
(Professor at the University of Cuyo, Argentina)

November, 1957

Washington, D.C.

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THE JURIDICAL STATUS OF INTERNATIONAL (NON-MARITIME) WATERS IN THE WESTERN HEMISPHERE

by Guillermo J. Cano*

(Professor at the University of Cuyo, Argentina)

I. WATERS INCLUDED IN THIS STUDY. IMPORTANCE OF THE SUBJECT

1. The term "international non-maritime waters", which is similar to that adopted by Professor Andrassy,[1] is, in my opinion, best suited to define the content of so-called international river law. It does not seem to me advisable that it should exclude regulations for lake and river navigation, since this type of utilization predominates in certain regions and, as it occasionally has to compete with other uses, problems arise which require legal settlement.

The term employed as a heading for this study therefore comprises:

(a) International fresh water rivers;

(b) International non-maritime waters, whether salt or hard, which are unsuitable for drinking or irrigation and therefore have other important economic uses (lake Assuei or del Fondo on the island of Santo Domingo, for example);

(c) Lakes (North America has several large lakes, such as the Great Lakes; there are Nicaragua and Güija in Central America; Titicaca, Nahuel Huapi and several others in South America);

(d) Artificial fresh water canals (the St. Lawrence Seaway in North America and the Panama Canal in Central America);

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The present study was prepared in November, 1957, by Professor Cano in a private capacity; some of the material contained in it was supplied to him in connection with his work for the United Nations. The paper was not presented officially to the Conference, but it was made available on an informal basis to several members of the Committee, and taken into account.

[1] ANDRASSY, UTILISATION DES EAUX INTERNATIONALES NON MARITIMES (EN DEHORS DE LA NAVIGATION) (Geneva 1957).

(e) Glaciers and "continental ice" formations which are not strictly rivers since they consist of water in its solid form, but which are interesting from the legal point of view and are specifically mentioned by one author; [2]

(f) International underground waters, which have already given rise to problems in Europe and are worthy of consideration by international law.[3]

Salt and hard maritime and non-maritime waters are being increasingly studied by technical experts and economists insofar as their different uses for navigation and fishing are concerned. It has been estimated that out of a total daily consumption of 635.9 billion m^3 of water in the United States,[4] 56.8 billion, i.e., 8.9 per cent, were salt or hard water. The production of tidal energy is also arousing greater interest; in 1957 the Argentine Government requested a study to be made of the tides around the Valdez peninsula with a view to energy production, and a report presented at the Symposium on Water Resources, held at the University of Cuyo from 9 to 14 December, 1957,[5] provided physical data that justified a study of the problem that would include the whole South Atlantic coastline of Argentina. These new aspects will, no doubt, have juridical repercussions in the near future, and the regulation of these types of utilization, which are far removed from the traditional use of maritime waters for navigation and fishing, will have to be considered together with those with which we are concerned at present.

2. Each day there are 86,400 more people in the world to be clothed and fed. But the domestic and economic usage of water resources do not keep pace with the population increase, and this disparity constitutes a permanent threat to world peace.[6]

[2] VOLPI, APROVECHAMIENTOS HIDROELÉCTRICOS INTERNACIONALES, Buenos Aires, mimeographed edition S/F, pp. 11, 13.

[3] Andrassy, *"Inland water rights and obligations between states"*, in PRINCIPLES OF LAW GOVERNING THE USES OF INTERNATIONAL RIVERS, International Law Association, S/F (Washington 1956), containing the documents of the Conference held at Dubrovnik, Yugoslavia, 1956, pp. 8, 10.

[4] BARNES, AGUA PARA LA INDUSTRIA EN LOS ESTADOS UNIDOS translated by the Secretaría de Recursos Hidráulicos, Mexico, Technical Memorandum No. 125, 27, (Mexico, May 1957).

[5] RODRIGUEZ, PROGRAM NACIONAL DE INDUSTRIALIZACIÓN DE ENERGÍA MAREOMOTRIZ, (Buenos Aires 1957).

[6] HUXLEY, THE DOUBLE CRISIS, UNESCO (Paris 1956).

Full utilization of fresh water resources is vital for the survival of the human race, since neither man nor the animal and vegetable kingdoms upon which he depends for food, can live without water. Much of his food is transported by water, and water generates the electric power for his industries. Out of an annual flow of 12,000 million acre-feet of fresh water in the world's rivers, only 750 million are utilized for irrigation. A further 1,800 million have not yet been used in any way, apart from the flows of the Amazon and Congo which together amount to 4,000 million more.[7]

These figures testify to the need for an adequate legal order for these rivers which would enable them to be included among the natural resources on which man depends for his subsistence. Up to the present, international rivers are precisely those which have been least exploited, owing to the political problems to which they give rise.

3. The subject of international rivers has interested mankind from ancient times; the first treaty concerned with navigation on the river Po dates back to 1177 and a similar treaty on the Rhine to 1255. Everything that has been written on the legal order of international rivers would fill a great many bookshelves, and the various types of treaties and agreements entered upon amount to several hundred. Recently, the existence of international water law, in the sense of a collection of principles regulating the use of such waters, was asserted and subsequently denied.[8] There has also been some argument as to whether such principles are of the regional-continental type, or whether they are universally valid. At the same time,[9] it has been stated that there is very little documentation in America which would attest to the existence of an American international waterways law. As I have succeeded in collecting information on approximately 100 international agreements on American rivers and lakes (see Table II), it seems to me that

[7] DEXHEIMER, INTERNATIONAL WATER PROBLEMS AND PROGRESS MADE THROUGH TREATIES, COMPACTS AND AGREEMENTS, World Power Conference (Rio de Janeiro 1954). According to this author's figures, 79.6 per cent of the waters not yet utilized outside the zone of influence of the USSR, are international. Volpi (*op.cit.*, n. 2) states, with respect to Argentina, that 76.5 per cent of its water resources are international.

[8] Laylin and Sikri, *"Principles of law governing the uses of international rivers.* Documents s/f of the International Law Association Conference at Dubrovnik, Yugoslavia, 1956.

[9] SIKRI, *op.cit.*, p. 11.

it would be useful to make an ordered statement of the principles that they embody, necessarily confining myself to the Americas. I will express no opinion as to whether the principles adopted in the Americas would be equally acceptable in other continents with a different development and distinct geographical conditions.

II. SOURCES OF INTERNATIONAL WATERWAYS LAW IN THE AMERICAS

A. International Treaties and Conventions Examined

4. Table II attempts to present an over-all picture of the treaties and other international conventions on American lakes and rivers on which I have been able to gather some information (see Appendix II).

The treaty of March 19, 1941 between Canada and the United States, which provides for a canal system to link up the Great Lakes, and for a navigable waterway between the St. Lawrence river and the Atlantic, has not yet been ratified by United States Congress. These projects are, however, being carried out by means of parallel legislation in the two countries, which takes into account the rights of each country. The practical result is the same as if the treaty had been put into effect.

B. Documents of Inter-American Organizations

5. The Permanent Committee on Codification of Public International Law of the Pan American Union of which Clovis Bevilacqua was chairman, presented a report at Rio de Janeiro on July 23, 1932 dealing with the general principles which may facilitate regional agreements between adjacent states on the industrial and agricultural uses of the waters of international rivers.[10] The report pointed out that these general principles may also concern navigation and public health—in the latter case with respect to water pollution—, and supported the basic principle of the Madrid Declaration of 1911, adopted by the Institute of International Law, which states that "the use of international watercourses for industrial purposes, whether they traverse, or actually constitute boundaries, presupposes the consent of all states directly interested with a view to maintaining navigation rights and safeguarding public health". He

[10] Legal Aspects of Hydro-electric Development of Rivers and Lakes of Common Interest 263 (U.N. Economic Commission for Europe) (E/ECE/136), (Geneva 1952).

added that in the absence of international law, the possibility of obligatory arbitration was ruled out, and any problems in this respect could only be solved by joint agreement. He therefore suggested that disputes should be referred to a Technical Commission to be set up by the Pan American Union to study the problems with this in mind and to propose the bases for such agreements.

6. On December 24, 1933 the Seventh Conference of American States at Montevideo adopted a Declaration, which was based upon the principle enunciated in the previous paragraph[11] and on the principles of the Geneva Convention of December 9, 1923. The declaration was wider in scope, envisaged other types of water utilization and laid down concrete lines of procedure for the settlement of international disputes. It made a distinction between contiguous (or boundary) and successive rivers, its provisions in this respect being summed up as follows:

(A) Standards for both categories:

(i) States bordering upon or traversed by, a river have common ownership over it.

(ii) Each state has an exclusive right to use the water in that part of the river which is under its jurisdiction, provided that this does not prejudice the interests of any other state concerned. If it is likely to do so, the prior consent of the other state is required.

(iii) Navigation has priority over industrial and agricultural utilization.

(iv) Any state bordering upon, or traversed by, a river that does not wish to undertake hydraulic studies must permit other interested states to do so within its territory.

(v) Any project to be carried out on an international river should be first referred, together with the relevant technical documentation, to the interested riparian states, which should then be accorded a period of 3 months in which to state their objections: Any disagreement should be submitted to a Joint Technical Commission, to be settled within 6 months. If this proves impossible, conciliation will first be attempted and will be followed by arbitration if this proves unsuccessful.

[11] 1 BOLETIM DA SOCIEDADE BRASILEIRA DE DIREITO INTERNATIONAL 161 (Rio de Janeiro 1945).

(B) Exclusive standards for successive rivers:

(i) If projects to be undertaken for industrial or agricultural purposes are liable to affect the navigability of the river, this fact should first be communicated to the riparian states only for purposes of information. No work that will affect navigation may be undertaken.

This Declaration was adopted with reservations on the part of Mexico and Venezuela, the United States abstaining.

7. The First Regional Conference of the River Plate at Montevideo in 1941, in which Argentina, Bolivia, Brazil, Paraguay and Uruguay participated, discussed the technical aspect of navigation on the rivers forming this system, and proposed the creation of Joint Technical Commissions, the union of the three large South American basins by canals and the conclusion of agreements on agricultural and industrial utilization, on the basis of the principles enunciated in the Montevideo Declaration of 1933.[12]

8. The United Nations Economic Commission for Latin America, (ECLA), during its Seventh Session at La Paz, adopted Resolution 131 on May 27, 1957 which recommended its Executive Secretariat to "approach the Governments of the Latin American countries to the end that the utilization of rivers and lakes situated in international hydrographic basins, for hydro-electric energy, irrigation, navigation and any other useful purposes to which they may lend themselves, be effected on the basis of adequate planning undertaken by international technical commissions".[13] Resolution 122, adopted on the same date, also refers implicitly to this subject since it recommends "the desirability of granting the greatest possible facilities for the expansion of the international trade of landlocked countries".

9. The Economic Conference of the Organization of American States, which took place at Buenos Aires in August, 1957, recommended to its member states, on the basis of a report by

[12] VOLPI, *op.cit.*, n. 2, p.4, Organization of American States, Doc. N° 73, August 20 (1957).

[13] U.N. Economic Commission for Latin America (ECLA), *Annual report to the Economic and Social Council*, for the period 15 May 1956 to 29 May 1957 (E/CN.12/451), p. 144.

its secretariat[14] and a proposal by Paraguay,[15] that agreement should be concluded for the study of international rivers within their respective jurisdictions, with regard to the technical aspects of navigation, industrial and agricultural utilization and improvement of the transport systems.

Various inter-American organizations have thus not only elaborated a doctrine embodying the fundamental principles of international waterways law as summarized in this study, but have also reiterated the importance of the problem and the urgent need for a solution.

C. Bibliography

10. Space is too limited to quote the numerous American publications on this subject. It should be pointed out that since the natural boundary of many American states is either formed by a river or by the *divortium aquarum*, the problem of boundaries where rivers and lakes are concerned is as old as the political birth of the republics that border upon them, and, together with the question of navigation on inland waterways, has been most widely written about. Among American authors, Professor Miguel S. Marienhoff,[16] who was responsible for a chapter on the general legal status of international watercourses, is nevertheless worthy of special mention. For my part, I have made a brief study of the subject in a document recently issued by the U.N. Food and Agriculture Organization.[17]

11. Of North American publications in this field, particular mention should be made of those concerning work on the opening of a navigable waterway from the Atlantic to the Canadian and United States Great Lakes, and on parallel hydro-electric

[14] C.I.E.S. "Transportes y desarrollo económico: sistema del Río de la Plata", (July 1957).

[15] Organization of American States, Doc. N° 73, (Buenos Aires 1957).

[16] MARIENHOFF, RÉGIMEN Y LEGISLACIÓN DE LAS AGUAS PÚBLICAS Y PRIVADAS 362 *et seq.* (Buenos Aires 1939).

[17] CANO, LAS LEYES DE AGUAS EN SUDAMÉRICA 223, U.N. Food and Agriculture Organization, (Rome 1956).

utilization,[18] as well as of the various United States Government publications on its international agreements.[19]

12. Bibliographies other than North American are also a source of international waterways law in the Americas, in so far as the principles accepted outside these continents can be adapted to the physical and human characteristics of the Americas.

One of the latest examples of this is a Resolution adopted by the International Law Association Conference at Dubrovnik, Yugoslavia, in August 1956,[20] on the basis of a report by the International Committee on the Uses of the Waters of International Rivers under the chairmanship of Professor Clyde Eagleton, of New York. The appreciation and criticism which this report evoked represented the respective standpoints of the Governments of India and Pakistan in their famous dispute over the river Indus; their views have been summarized in the volume referred to in footnote 8.

13. Reference should also be made to the most complete study on the subject that has been undertaken to date—the report prepared by M. Pierre Sevette, and issued by the United Nations Economic Commission for Europe, which is referred to in footnote 10.

In spite of its limitation to the one type of water exploitation covered by the title, this report makes a thorough analysis of the legal status of international rivers and lakes.

It should be pointed out that the problem of the international transport of hydro-electric energy has further extended the

[18] ST. LAWRENCE SEAWAY MANUAL. U.S. Printing Office, 1955. U.S. Senate, 83rd Cong., 2nd Sess.; Doc. No. 165, presented by Senator Alexander Wiley, together with the text of the Wiley-Dondero Act, No. 358 of 1954, creating the St. Lawrence Seaway Development Corporation, and the text of the Canadian Act of December 21, 1951, The St. Lawrence Seaway Authority Act. See also the CANADIAN GEOGRAPHICAL JOURNAL, Vol. 16, N° 1 Ottawa, January 1938; KYTE, ORGANIZATION AND WORK OF THE INTERNATIONAL JOINT COMMISSION, (Ottawa 1937); and the International Joint Commission USA-Canada "Rules of procedure and text of treaty", Ottawa-Washington (1947).

[19] DOCUMENTS ON THE USE AND CONTROL OF THE WATERS OF INTERSTATE AND INTERNATIONAL STREAMS, U.S. Dep't. Interior, 1956, compiled by Richard Witmer; Treaties in Force, U.S. Dep't. State, (1956).

[20] *Op.cit.*, n. 8, p.1

field to be studied; because of this, certain national rivers which belong to one country exclusively may have "international interest", and, for this reason, the above-mentioned report does not refer to international rivers only but also to those of "common interest" (see the numerous publications of the Economic Commission for Europe which define the basic principles of international energy law).[21] Similar solutions for the same type of problem—although only in so far as engineering techniques are concerned—have also been envisaged in America;[22] in Chile, Endesa (Empresa Nacional de Electricidad, S.A.) has been studying the possibility of generating energy from the Peruvian-Bolivian waters of Lake Titicaca, or from the Argentine waters of Lake Nahuel-Huapi, and distributing it between Chile and these countries. The term "international hydraulic resources" used by Endesa in this connection would appear less appropriate than the expression "resources of international interest" with reference to those countries not bordering upon the hydrographic basins in question.

14. Finally, mention should be made of United Nations action in view of its importance for the development of international rivers in the Western Hemisphere.

Resolution 346 (XII), adopted on March 9, 1951, by the Economic and Social Council of the United Nations invited the

[21] U.N. ECONOMIC COMMISSION FOR EUROPE. See the following publication: Transfers of Electric Power across European Frontiers (E/ECE/151), (Geneva 1952); Actas de la 6a. reunión (Geneva, 1957); Prospects of Exporting Electric Power from Yugoslavia (E/ECE/192); Recomendación N° 2, sobre desarrollo hidroeléctrico de ríos y lagos contiguos (E/ECE/EP/117), (October 15, 1951); Summary of the meetings held by the Committee on Electric Power (E/ECE/EP/133), (1953); International Action for the Development of Austrian Hydro-resources with a View to Power Exports (E/ECE/EP/53), (1954); International Action to Install a Pumping Station in Luxembourg (E/ECE/EP/64), (1954); Hydro-electrical Equipment in the Countries of the Danubian Basin (E/ECE/EP/Scl/5), (1948); Report by the Secretariat to the Alpine Study Group on the Hinterrhein-Val di Lei Scheme (Italy and Switzerland) (E/ECE/WP.1/5), (1949); Discussions, Decisions and Documents relevant to the Work of the Committee on Electric Power (E/ECE/EP/42), (1953); See also URBAN & VAS, AUSTRIA'S EXPERIENCES IN INTERNATIONAL HYDRO-ELECTRIC DEVELOPMENTS, World Power Conference, (Rio de Janeiro 1954).

[22] Empresa Nacional de Electricidad, S.A. (ENDESA), Plan de electrificación del país, 88 (Santiago, Chile 1956)

Secretary-General of the United Nations to report on the part played by international organizations, whether governmental or non-governmental, in water resources development. This report (E/2205 and Add. 1), entitled International Co-operation on Water Control and Utilization, which was issued on April 25, 1952, gave rise to another Council Resolution—417 (XIV) relating to the promotion and co-ordination of international action for the exploitation of hydraulic resources. U.N. Document E/2603, of May 19, 1954 entitled The Exploitation and Use of Hydraulic Resources describes the measures taken in the implementation of Resolution 417 (XIV).

As a consequence of this report, the Council adopted Resolution 533 (XVIII) which provided for the continuation of work to strengthen international co-operation in this field. One of the measures taken was to convene the First United Nations Inter-agency Meeting on International Co-operation in the Development and Use of Water Resources which was held at Geneva in August, 1954. One year later, the Second Inter-agency Meeting took place in the same city; a report of this may be found in U.N. document CO-ORDINATION/R.216 of February 27, 1956. The Secretary-General of the United Nations subsequently submitted a new report to the Economic and Social Council (E/2827 of February 23, 1956), which resulted in the adoption by the Council of Resolution 599 (XXI) on May 8, 1956. One of the main points of this resolution related to the formation of a panel of experts to study the integrated development of river basins and to organize an international conference for the exchange of information and experience in this field.

The Third Inter-agency Meeting was also held at Geneva, in July, 1956; a report of its proceedings is to be found in U.N. Document CO-ORDINATION/R.243 of March 15, 1957. The fourth meeting is scheduled for December, 1957. Meanwhile the Panel of Experts has been set up, and its final report is also expected in December.

The United Nations Economic Commission for Asia and the Far East is also concerned with the question of international rivers, especially those in which Pakistan is interested.[23]

[23] Multiple-purpose River Basin Development. Pt. 2B, and Water Resource Development in Burma, India and Pakistan (ST/ECAFE/SER.F/11), 115 (U.N. Economic Commission for Asia and the Far East), (Bangkok 1956).

D. Inter-State Compacts (in Federal Countries) as a Source of International Waterways Law in the Americas.

15. The United States and Argentina, which both have Federal constitutions, have made available the precedents underlying the doctrine expressed in their compacts—inter-state in the case of the former and inter-provincial in the case of the latter—for distribution of the waters crossing or bordering on certain of these political subdivisions. The United States Supreme Court has also evolved an inter-state common law which has been quoted, together with the texts of all "inter-state compacts", in the publication referred to in footnote 19. John G. Laylin of Washington, D. C., upholds, with reason, the value of both contractual and judicial procedure as a basis for international water law.[24] The United States and Argentine constitutions differ in that the former requires the consent of Congress before an inter-state compact can be signed, while the second merely requests that the Federal Parliament be informed of the conclusion of all inter-provincial treaties.

16. Since 1956, Argentina has begun to make considerable use of the practice of inter-provincial agreements for the exploitation of rivers with a similar regime. So far the following agreements have been concluded: (a) that of the Colorado river in October, 1956, among the provinces of Mendoza, Neuquen, Río Negro, La Pampa and Buenos Aires, which set up a Permanent Inter-state Commission to study and project the distribution of its waters; (b) that of the provinces of Catamarca, Chaco, Jujuy, La Rioja, Salta, Santiago and Tucumán on October 16, 1956 which created the Inter-provincial Water Organization of the Argentine Northwest to study and promote the development of inter-provincial rivers; (c) that of the provinces of Neuquen, Río Negro and Chubut and the Federal Government on September 21, 1957, which established the Corporación Norpatagónica to develop the Negro and Chubut rivers (ratification is pending); (d) that of the Bermejo river on November 30, 1956, which set up an Inter-provincial Commission to plan development works for that same river (already ratified by the provinces of Salta, Chaco and Córdoba, and awaiting ratification by those of Formosa, Jujuy, Santiago, Santa Fé and Tucumán).[25]

[24] LAYLIN, *op.cit.*, n. 8, pp. 2, 33 and 35

[25] MARTINEZ DE HOZ, EL PETRÓLEO Y LAS FUENTES NATURALES DE ENERGÍA FRENTE A LA REFORMA DE LA CONSTITUCIÓN, Jur.Arg., N. 6866, September 15, 1957, para. III.

17. Since 1943, I have had an opportunity to summarize in various studies the principles which, in my opinion, should govern the distribution of inter-state rivers.[26] According to paragraph 15, *supra* these would also be applicable to international water law in North and South America, and are as follows:

I. No province has absolute or unlimited sovereignty over those parts of the inter-provincial rivers that cross or border its territory, such sovereignty being subject to the obligation to respect the interests of the other riparian provinces.

II. Each province has a right to demand physical and chemical integrity in that part of the waterway under its jurisdiction; the first requires that its course and volume should not be modified, and the second, that its waters should not be altered or polluted.

III. The distribution of the *periculum* and *commodum* will be left to nature, the result to be respected by each province.

IV. Each province bordering upon, or traversed by, an inter-provincial river has the right to consume a minimum of its flow, always provided that this does not limit the part corresponding to the other riparian provinces.

V. In the case of a boundary river, each riparian province has the right to utilize the volume of water enclosed between its frontiers and its banks up to the thalweg, as well as the hydro-electric power that it generates in proportion to the river's total volume.

VI. The use of a river by a province since time immemorial confers upon that province the right to continue to use it in the same proportion.

VII. Any future diversion of water should take place in those provinces in which it would be most useful from the standpoint of the national economy.

[26] Cano, *Los ríos interprovinciales. Espíritu y práctica de la Constitución frente a ellos*, ESTUDIOS EN HOMENAJE A LA CONSTITUCIÓN NACIONAL EN EL 90° ANIVERSARIO DE SU SANCIÓN, (Santa Fé 1943); *Las aguas y las minas en el régimen federal argentino*, LECCIONES Y ENSAYOS, Suppl. N° 1, (Buenos Aires 1957); CONTRIBUCIÓN AL ESTUDIO DE LA REFORMA CONSTITUCIONAL. FEDERALISMO, MINAS Y AGUAS, Jur.Arg., N° 6840, August 20, 1957); ACERCA DE UN PROYECTO DE TRATADO INTERPROVINCIAL (EL TRATADO DEL RÍO COLORADO), Jur.Arg., 146 III sec. doc., (1956); *La Conferencia del río Colorado*, La Prensa, Buenos Aires, August 22, 1956.

VIII. If all other conditions are equal, water distribution should not be in proportion to the extent of the territory of a province, but to the wealth to be created and the investment to be made in works of exploitation, i.e., in accordance with the "spirit of enterprise" of each province.

Some of these principles, which have already been incorporated in Argentine inter-provincial treaties, were originally proclaimed by Konrad Schulthess in his review of European law, and by Miguel S. Marienhoff in his previously mentioned study. I have derived others from the socio-economic and geographical conditions of Argentina.

18. International experience in inter-state compacts is not restricted to the United State and Argentina. On December 12, 1955, India passed an "Inter-state Water Disputes Bill",[27] and its Damodar Valley Corporation was set up by the terms of a compact between the states of Bihar and Bengal, which was later ratified by the Act of February 18, 1948.[28] The large-scale works envisaged by the Bhakra and Hiraku Projects were also constructed and operated by virtue of inter-state agreements.[29]

In the same way, Australia organized the River Murray Commission, the Snowy Mountains Hydro-Electric Authority and the Dumaresq-Barwon Border River Commission.[30] In Switzerland, a treaty was signed in 1841 between the cantons of Zürich and Schwyz which constitutes the earliest precedent of its kind.[31]

All the principles embodied in the precedents that I have just described constitute a useful source of international water law in the Americas, and I would be inclined to suggest that their codification might well be included as a special item for discussion at the next Inter-American Bar Association Conference.

[27] *Op.cit.*, n. 23, p. 71

[28] EIGHT YEARS OF D.V.C. 7 (Calcutta 1956). See also Swaninathan, *India's TVA*, Fortnightly, London, September, 1948.

[29] Proceedings of the Regional Technical Conference on Water Resources in Asia and the Far East, (U.N. Economic Commission for Asia and the Far East) 316 (Flood Control Series, N° 9), (Bangkok 1956).

[30] *Op.cit.*, n. 29, p. 338

[31] SCHULTHESS, DAS INTERNATIONALE WASSERRECHT 26, 41 (Zürich 1916). See also the decision of the Swiss Federal Tribunal in re *Aargau vs. Zürich*, quoted by SMITH, THE ECONOMIC USES OF INTERNATIONAL RIVERS, 39, 104 (London 1931).

III. PRINCIPLES OF INTERNATIONAL WATER LAW IN THE WESTERN HEMISPHERE

19. Before citing these, it should be remembered that the co-ordinated use of international rivers and lakes is not only to be obtained through agreements, but also through parallel legislation. In 1941, the respective executives of the United States and Canada concluded an agreement to construct the St. Lawrence Seaway to link the Great Lakes with the Atlantic. As this was not ratified by the United States Congress, the two Governments resorted to the expedient of constructing their respective parts by means of parallel legislation envisaging unilateral action. Co-ordination between the two countries has been achieved through administrative instead of political agreements, with respect to both the construction and operation of the project. (See the bibliography and Acts mentioned in footnote 18). As pointed out in the report of the International Law Association Committee, which served as the basis for the Dubrovnik Declaration,[32] a similar solution was adopted by Eire and Northern Ireland.

Having cleared up this point, I shall proceed to a systematic review of the principles underlying the various international agreements of the Americas, which may serve as the precedents for the whole body of international river law to be adopted by the North American continent.

A. Criteria for Water Distribution, Costs and Benefits

1. *Boundary Rivers*

20. As mentioned in one study on European waters,[33] there have always been two conflicting principles in this connection:

(a) that of territoriality, whereby countries maintain their exclusive sovereignty over those parts of international rivers within their jurisdiction, regardless of whether their use may prejudice other countries; and (b) that of the physical and chemical integrity of the watercourse by which no riparian or traversed country may change the natural characteristics of the river to the detriment of the other countries concerned.

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[32] *Op.cit.*, n. 8, p. 4

[33] URBAN AND VAS, *op.cit.*, n. 21, p. 1

The Río Douro treaty[34] admits, in so far as potential energy only is concerned, reciprocal alienation of its share by each signatory state in favour of the other, which virtually implies joint ownership. This solution has been explicitly established on the South American continent where Bolivia and Peru claim joint ownership of Lake Titicaca (Treaty of 1957, art. 1).[35] Recommendation No. 2 put forward by the Electric Energy Committee of the United Nations Economic Commission for Europe on October 15, 1951,[36] shows a certain similarity, since it suggests that each country should regard and treat as its own any hydraulic works constructed within the territory of another country upon international waters in which they have part ownership. The Montevideo Declaration (1933), art. 7, also expressly uses the words "joint-owner countries" (*condóminos* in Spanish).

21. The doctrine regarding the demarcation of the hydraulic boundary between two countries is divided into two different theories: that of the thalweg, and that of the median line between river banks. The Brazilian-British agreement of March 15, 1940, on the boundary waters of the Guayana, adopts the thalweg principle, but clearly states that the boundary is constituted by the water, and not by the river-bed. It also stipulates that if the thalweg should vary, the boundary will change accordingly. In cases where the thalweg is not definable, the principle of the middle of the most-easily navigable channel, in a downstream direction, is adopted.[37]

Argentina and Uruguay have been discussing the subject for some considerable time with reference to the river Plate; their 1910 agreement laid down a *modus vivendi* which is still operative.

Treaties between Mexico and the United States establish a complete system of legal order on this subject, in view of the fact that they deal with rivers whose courses change fre-

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[34] NUNES, O APROVEITAMENTO HIDROELECTRICO DO DOURO INTERNACIONAL, World Power Conference, (Rio de Janeiro 1954). Commentary on Spanish-Portuguese treaty of 1927 concerning hydroelectric exploitation of the river Douro.

[35] In the following pages of this study, international agreements will be referred to, *brevitatis causa*, by the names of the signatory countries and the date only. In Table II these references will be given in more detail for better identification.

[36] U.N. Economic Commission for Europe (E/ECE/EP/117)

[37] UNTS 5:82

quently (Grande, Bravo, etc.). The doctrine adopted is that of placing the boundary on the center line of the main channel.[38]

Since these and other agreements in the Americas take into account cases of variation in river beds, some reference should be made to the various hypotheses envisaged:

(a) *slow changes,* due to the normal effects of the current, vary the boundary originally agreed upon, but not private ownership of the lands affected[39] according to certain agreements. In others, the reverse applies,[40] although only with reference to cases where the change in the thalweg affects islands, which continue to be the property of the same country.

(b) *sudden changes,* caused by floods or man-made works. According to treaties between Mexico and the United States,[41] these do not change the boundary, but in Brazilian agreements they are presumed to do so.[42] In the latter case, however, the affected country is allowed a period of 4 years to build corrective works which will cause the river to return to its original bed. In all cases the lands continue to be the property of their original owners.[43]

(c) *artificial rectification.* Mexico and the United States have undertaken mutual compensation, by means of an interchange of equivalent areas for lands gained or lost through this type of work,[44] each Government buying the lands affected from the individuals concerned (each in its original territory), and maintaining its ownership, or transferring it to the other country, according to whichever side of the new boundary it is on.[45]

(d) *islands.* Apart from the principles stated in (a) above, the Brazilian-British treaty stipulates that, if, by the elimination of the old river-bed, an island is physically joined to the bank, it is incorporated in the territory of the country owning that bank; if two islands are joined together, their ownership is defined by the thalweg after the change; if new islands are formed, their ownership is again defined by the new thalweg. The change in jurisdiction does not affect private ownership in any of these cases, but governments are required to pay indemnity to each other.[46]

[38] MEXICO-USA, 1884:1; 1889:4

[39] MEXICO-USA, 1884:1; 1905:4; BRAZIL-UNITED KINGDOM, 1940:5

[40] BRAZIL-UNITED KINGDOM, 1940. See also UNTS 5:86, para. 3a)

[41] MEXICO-USA, 1884:2 and 3

[42] BRAZIL-UNITED KINGDOM, 1940, para. 4

[43] MEXICO-USA, 1884:5

[44] MEXICO-USA, 1933:5

[45] MEXICO-USA, 1933:7 and 8

22. Diversion works are authorized, provided that the country concerned takes no more than the amount of water permitted under the terms of its agreements, and that it advises the International Commission in the cases of Mexico and the United States,[47] whose treaty authorizes each to use the other country's waters, provided that this is not detrimental, and that such waters are returned to the river at some other point. Other treaties require prior agreement for works on boundary rivers.[48]

23. Canada and the United States have each agreed to contribute half the cost of hydro-electric works on jointly-owned waters, with equal participation in the benefits. In a similar case in Europe, Spain and Portugal divided the boundary course of the river Douro into two parts with an equal stream gradient, each country enjoying full rights to utilize its own portion.[49]

Contributions towards costs and participation in benefits, in the case of irrigation works, have been approached from a different criterion, which is based not on the area to be irrigated in each country, but on the value of the lands concerned, in the sense of profitability and that of the bordering towns which would acquire flood protection. Thus, in the case of works on the Rio Grande, Mexico and the United States participate to the extent of 12 and 88 per cent respectively in investments considered to be in their common interest, but the purchase of lands for right-of-way, the value of lands segregated by waercourse variations, and changes in previous irrigation works are costs borne individually by each country.[50]

In the 1946 treaty between Argentina and Uruguay with regard to the Salto Grande dam, the participation in costs and

[46] BRAZIL-UNITED KINGDOM, 1940:3 and 5

[47] MEXICO-USA, 1944:9

[48] BRAZIL-URUGUAY, 1933; DOMINICAN REPUBLIC-HAITI, 1929:10; BRAZIL-UNITED KINGDOM, 1940:6; Montevideo Declaration, 1933: 2 and 3

[49] CANADA-USA, 1950:6. Also *op-cit.* n. 34.

[50] MEXICO-USA, 1933, Act No. 129 of the International Boundaries Commission, July 31, 1930, para. 8.

benefits is as follows: (a) a calculation will be made of the difference between the cost of a thermal power station and a hydraulic plant of equal power, and this difference will be charged to navigational use; (b) the cost of the hydro-electric project, according to the above criterion, will be paid in direct proportion to the use made of it by each country, operation and maintenance expenses also being divided proportionately. In principle, both countries should contribute equally, but Uruguay has the right to use and to contribute less than 50 per cent, in which case Argentina must absorb the difference. Uruguay may, however, subject to 4 years' notice, take up its full 50 per cent and the corresponding balance; (c) the amount chargeable to navigation will be paid in proportion to use. This also affects Brazil, which, although not a signatory of the treaty, is a riparian country lying upstream to the projected works. For this reason, the final clause of the treaty invites Brazil to "consider" the changes in the navigability of the river which might be caused by the projected works.[51]

2. *Successive Rivers*

24. The writers are more liberal with respect to the obligations of states as regards this type of river, since in general there is no necessity to obtain the consent of other states to new works, but only to inform them of projects.[52] Successive rivers are excluded from the terms of the Canadian-United States treaty of 1909 (preliminary art.).

The Argentine-Chilean treaty of 1881, Art. 1, explicitly states that there is no joint ownership over successive rivers and lakes, each country being the exclusive owner of those parts within its frontiers. This principle has notable limitations, however, in other documents:

(a) when action is taken in the part of a successive river that belongs to one riparian state to prejudice inhabitants of the banks of the same river in another state, the inhabitants

[51] CANO, LAS LEYES DE AGUAS EN SUDAMÉRICA 223, *op. cit.*

[52] Montevideo Declaration, 1933:6 (although it only refers to works that may affect navigability). La Prensa, Buenos Aires, August 2, 1957—news item to the effect that the Argentine Government has informed the Bolivian Government of the studies it is undertaking on the exploitation of the river Bermejo which is international and successive. The U.N. Economic Commission for Europe adheres to the principle of prior notification between governments, with regard to both the upper and lower reaches of a river (E/ECE/EP/133), p. 11 (1953).

have the right to register their complaint according to the law and tribunals of the former state, just as if such prejudicial action had occurred within its territory.[53]

(b) in order to undertake works downstream which would raise the natural level of the water upstream, permission must be obtained from the International Commission, in the case of the Canadian-United States treaty,[54] while such works are completely prohibited in the case of the Douro treaty.[55] By the terms of the treaty between Mexico and the United States on the Colorado River (1944, art. 12), the former country undertakes to pay for any works which may become necessary within the latter to protect the inhabitants from any eventual damage arising from a diversion work constructed by Mexico on or near the boundary.

(c) countries upstream have often assumed the obligation of releasing a certain amount of water annually to countries downstream, at the same time guaranteeing these minimum quantities. Both Mexico and the United States have done this in turns, in accordance with their position on the river in question.[56]

25. As regards the criteria for water distribution, the Bravo River treaty of 1944 between Mexico and the United States differentiates between gauged and ungauged tributaries, dividing the volume drained by the former according to the location of its catchment area, and on the basis of a percentage, or the total volume of certain tributaries. Occasionally minimum releases have been guaranteed over five-year periods, the deficits arising during each period to be covered in the following. It has been agreed to make releases either in the river bed itself or through artificial canals at other points on the frontier when agricultural requirements in the border areas can only be met in this way owing to the topography of those areas. Such releases are made according to monthly maximum and minimum tables, so as to meet the need of the receiving country.[57]

[53] CANADA-USA, 1909:2. See also Kyte, *op.cit.*, n. 18.

[54] CANADA-USA, 1909:4. See also, Kyte, *op.cit.*, n. 18, p5.

[55] NUNES, *op. cit.*, n. 34.

[56] MEXICO-USA, 1906; 1944:10.

[57] MEXICO-USA, 1944:11 and 15.

26. Costs have been divided according to use, but profits from the sale of energy produced from irrigation works have been devoted to the amortization of irrigation costs once those of energy projects[58] have been liquidated.

3. *Tributaries*

27. In the Canadian-United States treaty of 1909 these are not included among international waterways, and are considered to be under the exclusive jurisdiction of the country through which they flow.[59] In rivers whose flow has been divided in accordance with previous gauging, consumption of the waters of non-gauged tributaries is debited to the user.[60]

4. *Lakes*

28. The Bolivian-Peruvian treaty of 1957 declares Lake Titicaca to be under their indivisible and perpetual joint ownership; both countries therefore have equal sovereignty over its whole area. (Argentina and Chile, on the other hand, stipulated the opposite in their treaty of 1881 on the Patagonian lakes.)

29. The 1957 treaty of Lake Güija between Guatemala and El Salvador does not mention this subject, but includes an agreement on exploitation; (a) both countries may construct works, providing that these do not affect the maximum and minimum levels laid down in the agreement; (b) the country which uses water in such a manner as to harm the riparian property of another state must pay that state the purchasing price of the property or compensate owners; (c) each country must carry out such conservation works in rivers which feed the lake as may be necessary to maintain the level of the latter.

In order to undertake the preliminary studies needed to calculate the cost of projected exploitation works on Lake Titicaca, and to determine the extent of each country's participation in the costs and benefits, Bolivia and Peru have established a royalty of US$ 0.001 per Kw.h. of electric energy consumed, and the same amount for each cubic meter of irrigation water. These royalties should be credited in equal proportions to each country, and charged to the consumer country.[61]

[58] MEXICO-USA, 1944:14.

[59] CANADA-USA, 1909: preliminary article. In the river Douro treaty (see n. 34), the diversion of its waters from their natural basin is forbidden.

[60] MEXICO-USA, 1944:9.

5. *Diversion to Other Catchment Areas*

30. Mexico and the United States (1944 treaty, art. 9) have stipulated that if one country, in diverting waters from another catchment area, diverts them toward the Rio Grande, it will have the right to extract a volume equal to that which it has added.

In their treaty of 1940, the United States authorized Canada, when draining the waters of the Albany River, which are not international, into international lakes, to extract an equal volume from the Niagara River which flowed from those lakes. The agreement between the same two countries on the Lake of the Woods (1925:11) calls for prior permission of the International Commission before diversion from a basin can be effected. In Europe, the Austrian-German treaty on the Achensee authorizes such works.[62]

6. *International Water Servitudes*

31. Under the Chilean-Peruvian treaty of 1929, art. 2, the former country grants the latter a perpetual servitude with regard to the Uchusuma and Mauri canals which carry irrigation water for Peru, although Chile retains its territorial sovereignty over them. Peru has the right: (a) to widen the canals; (b) to vary their course; (c) to withdraw all water along their course, including rainwater from the whole basin. These stipulations do not coincide with the common principles of civil law on servitudes, under which the titular state may neither widen nor change the course. Obviously, this is not a case of civil rights, but rather one of international public rights.

The Chilean-Bolivian treaty of 1905 on the construction of the Arica-La Paz railroad permits the unlimited use of waters which are neither private property nor have been granted for the use of the railroad and for its construction works. This also *stricto jure* constitutes a servitude.

7. *Artificial Works on International Rivers*

32. A great many standards exist in this respect owing to the many purposes of the works. Those of greatest legal interest are cited below:

[61] BOLIVIA-PERU, 1957

[62] URBAN and VAS, *op.cit.*, n. 21, p.6

(a) Both countries have common and indivisible interest in the assigned capacity of a storage reservoir for flood control, and therefore joint ownership over it.[63]

(b) An agreement on the construction of works for one purpose may sometimes be conditional upon the simultaneous construction of works for other uses, as in the case of navigation and hydro-electricity.[64]

(c) If physical reasons will only permit the construction of a work in one of the countries, although it would be of interest to both, the first country should allow the second to participate in the benefits, as in the case of energy.[65]

(d) Each country is responsible to its inhabitants for any damage caused to them by international works. The second country has no responsibilities in this connection.[66]

(e) Each country must acquire ownership under its laws of, and maintain, any territory upon which it constructs hydraulic works. It must also use full jurisdiction and sovereignty, so that private individual rights do not affect the utilization of these works.[67]

(f) Contributions to the cost of construction, operation and maintenance of reservoirs will be divided in proportion to the useful capacity assigned to each country; hydrometric costs will be equally divided.[68] Authorization has also been given for one country to make payments directly to the competent administrative agencies of the other country instead of through diplomatic channels.[69]

(g) With regard to regulations for the operation of international works, those laid down by the Mexican-United States treaty of 1944, art. 8, are of special interest; they may, moreover, be amended by the International Commission to which that treaty refers. They establish a system of accounting for water income on the credit side, and, on the debit, for losses through evaporation, floods and *in itinere*.

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[63] MEXICO-USA, 1933:5

[64] CANADA-USA, 1954. Wiley-Dondero Act, §3.

[65] CANADA-USA (Niagara), 1950:8

[66] MEXICO-USA, 1944:20

[67] MEXICO-USA, 1944:23

[68] MEXICO-USA, 1944:5 and 9

[69] CANADA-USA (Niagara), 1954

B. Principles Governing Each Specific Form of Water Utilization

1. *Order of Priority Between the Various Uses*

33. Since there are often disputes as to priority between the various sectors utilizing the watercourses, owing to the competitive nature of the different uses (the competition is especially marked between consumptive and non-consumptive uses),[70] some treaties have established an order of priority. The left-hand column below gives a key-number to each type of use; on the right are the treaties which have included these and the order of priority which they have adopted (as shown by the key-numbers):

Key number		*Order of priority between uses*		
Domestic and municipal uses..	1.	*Treaty*	*Year*	*Order*
Navigation.....	2.	Canada-USA	1909	1-2-4/3
Agriculture and livestock.....	3.	Mexico-USA	1944	1-3-4-5-2-6
Hydro-electricity.....	4.	Argentina-Uruguay	1946	1-2-4-3
Industrial uses.....	5.	Bolivia-Peru[a]	1957	2-6-3
Fisheries.....	6.			

([a] It is not absolutely clear whether in naming the uses in the order shown here, the treaty wishes to imply an order of priority).

2. *Specific Uses*

34. *Domestic and Municipal.* The 1909 treaty between Canada and the United States reserves for each country the right to unilateral diversion of the waters of international rivers for these purposes.

35. *Navigation.* The earliest treaties on the subject with which we are concerned related to navigation. Other types of water utilization have developed subsequently in accordance with the needs of growing populations. The treaty of 1825 between Argentina and the United Kingdom dealing with free navigation on the river Plate is the earliest that I have discovered. The next is that of 1828 between Brazil and Argentina; some of the latter country's member-states had already concluded agreements on river navigation with Brazil before forming the confederation in 1853. In the Old World, the first treaty on the Pó River dates back to 1177, that on the Rhine to 1255, and on the Danube to 1616, but the treaty of Münster

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[70] Hydro-electrical Equipment in the Countries of the Danubian Basin U.N. Economic Commission for Europe, Electric Energy Committee, p.9 (E/ECE/EP/Sc.1/5), (1948).

in 1648 was the first to introduce freedom of navigation on an international river (the Rhine).[71]

The Argentine Constitution of 1853 expressly establishes freedom of navigation on its international rivers, but since this is a unilateral declaration for the country's internal government it does not constitute an international commitment. In the same year, however, a treaty was concluded with the United States contracting this obligation.

The countries guaranteeing the Chaco Peace of 1935 between Bolivia and Paraguay—both of which are landlocked—undertook to ensure to each of these "a traffic and navigation system which took into account the geographical position of both parties".

The various treaties concluded between the riparian countries—Argentina, Bolivia, Brazil, Paraguay and Uruguay—of the river Plate basin (the rivers Plata, Paraná, Uruguay and their tributaries) guarantee freedom of navigation, as also the countries of the Amazon system and, in general, those of all navigable waterways in South America. This freedom, however, is not always assured to all flags but in some cases to the signatory states only.

It is unnecessary to stress the political and economic importance of the navigability of the rivers of the Amazon, Orinoco and Plate systems, and of the Great Lakes of North America, but it should be pointed out that even in smaller basins navigation is of considerable interest to the riparian countries; for example, 28,000 persons and 8,300 tons of cargo were transported over Lake Nicaragua, which is fed by international waters, in 1952.[72] The Brazilian-British agreement of 1940 on the boundary rivers of Guiana also guarantee freedom of navigation.

36. No less important are treaties governing artificial navigable canals,[73] especially those covering the Panama Canal and the St. Lawrence and Great Lakes Seaway system.

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[71] Inland Water Transport in Europe and the U.S.A. p.67. U.N. Economic Commission for Asia and the Far East-Technical Assistance Administration (ST/TAA/SER.C/9), (1954). See also n. 7

[72] Transport in Central America, p.85 U.N. Economic Commission for Latin America. (E/CN.12/356), (1953).

[73] COSTA RICA-USA, 1900; NICARAGUA-USA, 1900; PANAMA-USA, 1903. See also n. 18

37. *Irrigation.* All the treaties between Mexico and the United States which have been examined have as their principal objective the agricultural use of water by both countries. Table II gives all other treaties which contain clauses on irrigation.

38. *Hydro-electricity.* In paragraph 23, an analysis was made of the terms of the Argentina-Uruguay treaty of 1946 which concerned the projected Salto Grande hydraulic works on the Uruguay River.

The Lake Güija treaty (Guatemala-El Salvador, 1957) stipulates that should either of the two countries produce energy, it must place an installed capacity of 5,000 kw at the disposal of the other, at the same price as for distributors within its own territory. This power supply must be maintained for ten years, after which it is only necessary to guarantee a supply equal to the amount actually used. The international transmission of hydro-energy is tax-free.

United States treaties with Canada (Niagara, 1950) and Mexico (1944) also deal with the distribution of energy and equal contributions to construction and operation costs. The Mexican agreement also permits one country to drain water belonging to the other from an international river, in order to produce energy, always assuming that this does not prejudice the second country, and that the water expended and not returned to the stream is debited against the former.

39. International transmission of energy, which is the subject of many agreements and activities and a large bibliography in Europe (see footnote 16) seems to be still a remote prospect as far as America is concerned, in the north because both Canada and America are self-sufficient, and in the other states because the under-development of the domestic energy resources of each country makes exports of energy a very distant possibility (nevertheless, see footnote 17). Prospects are more favorable for Central America as a result of the close geographical proximity of its countries and the inter-connection possibilities.[74]

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[74] Pfaff, *Les ressources hydrauliciens de l'Amérique Central*, 679 *et seq.*—5 LA HOUILLE BLANCHE, (Grenoble, November 1956), considers international agreements to be necessary for the following projected works: Honduras-Salvador, on the river Lempa; the interconnexion between the same two countries of hydro-energy from the Lindo and Yojoa lakes; Nicaragua-Costa Rica—the latter's waterways, which can be used for generating electricity, are international in that they have Costa Rican tributaries and that the main stream, the San Juan, is navigable and constitutes a boundary at its mouth.

40. *Fisheries.* The Canadian-United States treaties on fisheries in the Great Lakes (1954) and the protection of salmon in the Frazer River system (1930) are the most outstanding. The latter envisages investment of $2,000,000 in equal proportion, with the sole object of protecting the fish. The Bolivian-Peruvian treaty of 1935 covers the same problem in Lake Titicaca, while that between Brazil and the United Kingdom on the Guiana boundary waters guarantees fishing freedom in these, and the Argentina-Uruguayan agreement of 1946 on the Salto Grande also includes fish protection measures.

41. *Tourist industry and recreation.* The desire to preserve the beauty of the Niagara Falls has led to a special treaty between Canada and the United States, concluded in 1950, whereby both parties undertake to limit their diversion of waters upstream of the falls to such an extent as to guarantee that there will always be an unbroken wall of water at the falls. For this purpose they guarantee the free flowing of certain minimum volumes (the day allowances differing from the night ones), the only variation permissible being when it is necessary to clear ice. The Mexican treaty of 1944 with the United States, throws open to the public, for purposes of tourist traffic, the lakes formed by the dams constructed under that treaty.

42. *Military uses.* The treaty mentioned above calls for the consent of both parties to the use of international waters for these purposes.

43. *Protection against water damage.* By the terms of the Lake Güija treaty (El Salvador-Guatemala, 1957), the country which utilizes the waters along one bank is obliged to conduct at its own expense any cleansing operations which may become necessary on the other bank as a result.

44. The 1909 treaty between Canada and the United States prohibits individual or collective acts or works liable to pollute international waters; the sewage system of many riparian cities were fouling them. The agreement of April 9, 1957 between the same two countries, obliged contractors building hydraulic works for one country, but working within the other, to refrain from any action which might pollute the waters.

45. The question of flood control was mentioned earlier in connection with the 1933 Mexican-United States treaty, where the storage capacity for flood waters in international reservoirs

was declared to be of common and indivisible interest to both. The 1944 treaty, between the same countries, declares that the signatories are not responsible for damage caused by floods resulting from natural causes, and establishes the right to employ natural common river beds to lead off such flood waters. The International Commission referred to in the treaty is responsible for the projection of works, and each country for the construction of those to be located within its territory.

C. International Water Organizations Created in the Americas

46. This is a matter of the greatest importance, since the efficiency of this type of organization usually depends upon the harmonious and friendly conduct of international relations in the field, which is only too often a source of conflict.

There are many treaties which establish organizations of this type, some of which are only concerned with the study and projection of the necessary works.[75] Others, such as technical organizations responsible for the operation of the works, have neither executive powers nor powers of decision,[76] whilst others again which carry out hydro-metric work,[77] construct hydraulic works,[78] or merely direct them.[79]

A Guatemala-El Salvador commission, set up to value property to be expropriated in connection with international hydraulic works, has the special feature of being composed of a representative of the country proposing the work, a representative of the private owners of the land to be expropriated in the other country, and an impartial member, who must be a Central American, but not a subject of either of the signatory states.[80]

47. Of all these organizations, the most characteristic are those set up by the United States, first with Mexico, and later with Canada. The former, established under the 1889 treaty,

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[75] ARGENTINA-URUGUAY, 1946; BOLIVIA-PERU, 1955 and 1957; ARGENTINA-BOLIVIA-PARAGUAY, 1941; CANADA-USA, 1944 (Upper Columbia River Basin)

[76] CANADA-USA, 1944

[77] MEXICO-USA, 1944

[78] ARGENTINA-URUGUAY, 1946; MEXICO-USA, 1944:24

[79] MEXICO-USA, 1933:4. The Treaty Commission on the Güija Lake, El Salvador-Guatemala, 1952:2, has technical and supervisory functions.

[80] EL SALVADOR-GUATEMALA, 1957:4

was originally named "International Boundary Commission", and from 1944 onwards "International Boundary and Waters Commission" (hereafter referred to as BWIC). The second, which was created in 1909, is called the "International Joint Commission" (IJC). Lord Tweedsmuir of Elsfield, Governor-General of Canada, in speaking of this organization, declared that since its inception it had shown to the world an example of a true mechanism for peace which settles a controversy before it arises, and perpetuates the unwritten alliance and friendship between two great nations.[81]

To give some indication of its standing, it is sufficient to mention that the members of the BWIC hold diplomatic rank and privileges (Treaty of 1944:2), whilst both organizations enjoy customs immunity for themselves, their property and their employees. Their powers may be classified as follows:

(a) Judicial. The IJC is a true international court,[82] with powers to decide on controversies between the two states, and between private persons in either of them. Its authority is supreme in all cases of the utilization or diversion of boundary rivers, or of those which cross the frontier.[83] The BWIC has similar powers, especially as regards decisions on the legal position of lands affected by changes in river beds.[84] Both organizations have established rules of procedure, which require to be adopted by both governments before they can be put into force, although the 1944 Mexican treaty recognizes tacit ratification if the interested government makes no comment within a period of 30 days. I shall refer to this subject again.

(b) Optional arbitration between governments. Voluntary, and not compulsory arbitration has been the rule in each case, recourse being had to normal international procedure for the settlement of disputes.[85] The 1889 Mexican treaty, art. 8, however, contains a clause assuming tacit agreement if the government concerned does not reply within 30 days. The treaty of 1909 with Canada expressly states that the IJC may not be the final arbiter, except in the case of definite agreement to this effect (art. 8).

[81] CANADIAN GEOGRAPHICAL JOURNAL, Vol. XVI, N° 1, January 1938, p. 20

[82] KYTE, *op.cit.*, p.4

[83] CANADIAN GEOGRAPHICAL JOURNAL, *op.cit.*, p.5

[84] MEXICO-USA, 1889:1 and 1944:2

[85] MEXICO-USA, 1944:24

(c) Prevention of disputes. See KYTE, *op. cit.*, n. 18 *supra* p. 4.

(d) Research and reports. The IJC has performed a most useful task in this field, in its first studies on the pollution of international waters by the sewage systems of riparian cities. Mention should also be made of studies on the level of the Lake of the Woods, and valuation of the corresponding compensation. (The BWIC may not issue reports at the request of one government without the consent of the other.[86])

(e) Granting of permits and concessions. Apart from the power to extent permission to private or government agencies for the construction of hydraulic works on international waterways, the IJC is vested with the more important power of granting concessions (for example, for hydro-electric works) to government agencies of the signatory states. On October 29, 1952, for instance, it simultaneously granted the Power Authority of the State of New York and the Hydro-electric Commission of Ontario authorization for the joint hydro-electric utilization of the Niagara. The BWIC can order the suspension of any works which it considers to be contrary to the terms of the 1889 treaty (art. 5).

(f) Rate-fixing. The Wiley-Dondero Act, sect. 12, requires joint action and agreement on the part of the two international organizations (St. Lawrence Seaway Development Corporation of the United States and the St. Lawrence Seaway Authority of Canada) in fixing hydro-electric and toll rates for the exploitation of the St. Lawrence Great Lakes canal system.

(g) *Ius edicendi.* Both international commissions are vested with this, for the issuing of compulsory regulations within their functional orbits, dependent upon the prior agreement of both governments, although, as mentioned earlier, the 1944 Mexican treaty includes a provision for assuming tacit approval after one month's silence. The rules of procedure dictated in this connection are interesting. Those of the IJC, laid down on February 2, 1912, provide for: (i) two secretariats, with duplicate files; (ii) private petitions to be forwarded through the respective governments; (iii) publicity to be guaranteed by the publication of petitions for a period of three weeks, and public hearing of the interested parties' statements; (iv) the defendant to be accorded two periods of 30 days each in which to reply and duplicate his papers; (v) the compulsory attendance of witnesses, or exhibition of docu-

[86] MEXICO-USA, 1944:24

ments, upon an order by the local courts of the country. Under the original treaty (1889:7) the BWIC was vested with these powers, but since the 1944 treaty (art. 24) it was also obliged to resort to the local courts; (vi) a full quorum to vote on decisions, but not to hear evidence. The BWIC regulations are similar.

48. In this type of organization, the commissioners' salaries and expenses are invariably paid by their respective governments, while common expenditures are equally divided. Operations are always by section, one for each country. Meetings are held alternatively in the two countries, the head of the host Section taking the chair.

Special provision has often been made for the application of local laws by international organizations operating in their own territories.[87]

IV. RECOMENDATIONS

49. I suggest the following recommendations:

I. The study of the subject: Systematization of the principles of Courts decisions and of the interstate compacts governing interstate waters in federated countries, as a basis for establishing rules governing the uses of international rivers.

II. That the exploitation of international water resources in the Western Hemisphere should be planned on the basis of technical studies, both economic and engineering, carried out with a view to the optimum joint utilization of each resource, and regardless of political territorial boundaries, and in the following stages:

(a) Evaluation of available water and associated resources, on the basis of an extensive exchange of information between the interested countries;

(b) Assessment of the extent of present utilization of those resources;

(c) Projection of future requirements;

(d) Programing of the co-ordinated exploitation of multiple uses of water resources in the most suitable locations for maximum yield.

III. That, if no immediate direct agreement is reached, this program should be submitted to specialized international organizations.

[87] CANADA-USA, 1957; MEXICO-USA, 1944:22

IV. That the following principles should be adopted for participation in costs and benefits:

(a) Potential benefits will be distributed on the basis of the following combined criteria: (i) the extent of the catchment areas of each country; (ii) the volume of water within the territorial jurisdiction of each country in relation to the whole hydrographic system; (iii) the respect for pre-existing uses; (iv) the needs of the respective populations; (v) the economic and financial possibilities of the respective countries for the construction and utilization of works.

(b) Construction, operation and maintenance expenses will be borne in proportion to the direct or indirect benefits to be received, and calculated in accordance with the various uses of water resources.

(c) Costs and benefits concerning one country only will be paid and enjoyed only by that country.

V. That hydrographic basins should be considered indivisible economic and geographical units, to be under the joint-ownership of countries participating in them. No country may utilize them exclusively, or in any way which would be detrimental to the rights of the remaining co-jurisdictional states. The part corresponding to each country may be administered directly by it—without prejudice to joint planning action—in order to facilitate each country's individual use of the basins.

Appendix I

TABLE I

INTERNATIONAL (NON-MARITIME) WATERS IN THE WESTERN HEMISPHERE

Table I lists all non-maritime international waters to be found in the Americas; the length of this list will be a source of surprise to many. Part B of the Table gives the number of countries that are interested in each river basin, and Part C shows how many basins are to be found within the different countries. When I prepared Table I, I decided to omit an enumeration of the tributaries in favor of the name of the principal watercourse belonging to each hydrographic system—generally speaking, that which flowed into the sea. For this reason, it may happen that a certain river has been designated as "international" when the actual river bordering or crossing two countries is a tributary of another name.

The symbol "c" has been used throughout to denominate boundary waters or those whose course is contiguous to two countries, and the symbol "cs" to indicate successive rivers, or those which do not border a country but cross the territory of two or more. The double symbol "cc/cs" denotes waterways that fall into both categories. These distinctions have been made as the legal status is not the same for successive and contiguous international waters, as a result of the principles currently accepted in this field.

A. *Key numbers* (indicating the name of the corresponding country in the second list):

1. Argentina
2. Bolivia
3. Brazil
4. British Guiana
5. British Honduras
6. Canada
7. Chile
8. Colombia
9. Costa Rica
10. Dominican Republic
11. Ecuador
12. El Salvador
13. French Guiana
14. Guatemala
15. Haiti
16. Honduras
17. Mexico
18. Nicaragua
19. Panama
20. Paraguay
21. Peru
22. Surinam (Dutch Guiana)
23. Uruguay
24. Venezuela
25. USA
    (Cuba is omitted as it has no international non-maritime waters.)

B. *Basins* (the numbers indicate the countries bordered or crossed by each one; the *italics* signify lakes that are included in the basin):

Yukon	6 25 cs	Amazon	2-3-4-8-11-21-24 cc/cs
Columbia	6-25 cs	Zarumilla	11-21 cs
Missouri (Mississippi)	6-25 cs	Cala	11-21 cs
Red (L. Winnipeg)	6-25 cs	*Blanca*	7-21 cs
Great Lakes and St. Lawrence	6-25 cc/cs	Uchusuma and Mauri Canals	7-21 cs
Colorado	17-25 cs	*Titicaca*	2-21 cc
Grande	17-25 cc/cs	*Lauca*	2-7 cs
*Hondo	5-14-17 cs	Cancosa	2-7 cs
Suchiate	14-17 cc/cs	Todos Santos	2-7 cs
Usumacinta	14-17 cc/cs	Caquena	2-7 cs
Chiapas	14-17 cs	Sapaleri	1-7 cs
Belize	5-14 cs	*Hua-Hum* (Calle-Calle)	1-7 cs
Sarstoon	5-14 cc/cs	*Gris*	1-7 cc
*Lempa	12-14-16 cc/cs	*Puelo*	1-7 cs
Motagua	14-16 cc	*Yelcho*	1-7 cs
Güija	12-14 cc	*Palena*	1-7 cs
La Paz	12-14 cc	Aysén	1-7 cs
Goascoarán	12-16 cc	*Baker*	1-7 cs
Sinipul	12-16 cc/cs	*Pascua*	1-7 cs
Negro	16-18 cc	Continental ice and snow cover	1-7 cc
Coco	16-18 cc	Serrano	1-7 cs
Nicaragua and San Juan	9-18 cc	Gallegos	1-7 cs
Chiriquí Viejo	9-19 cc	Cullen	1-7 cs
Sixola	9-19 cc	San Martín	1-7 cs
Panama Canal	19-25 cc	Grande (Tierra del Fuego)	1-7 cs
La Miel	8-19 cc	*Fagnano*	1-7 cc
Artibonite	10-15 cs	Cuyuni	4-24 cc/cs
Assuei	10-15 cc	Corentino	4-22 cc
Massacre	10-15 cc	Maroni	13-22 cc
Pedernales	10-15 cc	Oyapoque	3-13 cc
Zulia	8-24 cc/cs	*de la Plata	1-2-3-20-23 cc/cs
Catatumbo	8-24 cs	*Merim*	3-23 cc
Tachira	8-24 cc/cs	Cuareim	3-23 cc
Orinoco	8-24 cc/cs	Yaguaron	3-23 cc
Mataje	8-11 cc		
Mira	8-11 cs		

* basins in which more than two countries are interested.

C. *Enumeration, by interested countries, of international river basins:*

Argentina:	Plata-Sapaleri-Hua Hum-Lake Gris-Puelo-Yelcho-Palena-Aysén-Baker-Pascua-Patagonian continental ice and snow cover-Serrano-Gallegos-Cullen-San Martin-Grande-Lake Fagnano
Bolivia:	Amazon-Plata-Titicaca-Lauca-Cancosa-Todos Santos-Caquena
Brazil:	Amazon-Plata-Oyapoc-Lake Merim-Cuareim-Yaguaron
British Guiana:	Amazon-Cuyuni-Corentino
British Honduras:	Hondo-Belize-Sarstoon
Canada:	Yukon-Columbia-Missouri-Red (Lake Winnipeg)-Great Lakes and St. Lawrence
Chile:	Lake Blanca-Uchusuma and Mauri canals-Lauca-Cancosa-Todos Santos-Caquena-Sapaleri-Hua Hum-Lake Gris-Puelo-Yelcho-Palena-Aysén-Baker-Pascua-Patagonian continental ice and snow cover-Serrano-Gallegos-Cullen-San Martín-Grande (Tierra del Fuego)-Lake Fagnano
Colombia:	Amazon-Orinoco-La Miel-Zulia-Catatumbo-Táchira-Mataje-Mira-Zarumilla
Costa Rica:	Lake Nicaragua-San Juan-Chiriquí Viejo-Sixola
Dominican Republic:	Artibonite-Lake Assuei-Massacre-Pedernales
Ecuador:	Amazon-Mataje-Mira-Zarumilla-Cala
El Salvador:	Lempa-Lake Güija-La Paz-Goascoarán-Sinipul
French Guiana:	Maroni-Oyapoc
Guatemala:	Lempa-Hondo-Suchiate-Usumacinta-Chiapas-Belize-Sarastoon-Motagua-Lake Güija-La Paz
Haiti:	Artibonite-Lake Assuei-Massacre-Pedernales
Honduras:	Lempa-Montagua-Goascoarán-Sinipul-Negro-Coco
Mexico:	Grande-Colorado-Hondo-Suchiate-Usumacinta-Chiapas
Nicaragua:	Negro-Coco-Lake Nicaragua and San Juan
Panama:	Chiriquí Viejo-Sixola-Panama Canal-La Miel
Paraguay:	Plate

Peru:	Amazon-Lake Titicaca-Zarumilla-Cala-Lake Blanca-Uchusuma and Mauri canals
Surinam:	Corentino-Maroni
Uruguay:	Plate-Lake Merim-Cuareim-Yaguarón
Venezuela:	Orinoco-Amazon-Cuyuni
USA:	Yukon-Columbia-Missouri-Red (Lake Winnipeg)-Great Lakes and St. Lawrence-Colorado-Grande-Panama Canal.

Appendix II

TABLE II

TREATIES AND OTHER AGREEMENTS ON INTERNATIONAL RIVERS AND LAKES IN THE AMERICAS

The signatory states are listed in Spanish alphabetical order, as are also the contracting parties to each document. When more than one agreement exists between two countries they are cited chronologically. It is evident from the column headed "Subjects included in Conventions" that boundary and navigation treaties predominate, although all the items in the subcolumns have also been considered. Column VIII—"International Agencies"—cites those cases in which treaties provide for the creation of special bodies to collect and study technical data and to study the maintenance, operation and development of the rivers in question. Column X—"Distribution Works" concerns agreements that have either stipulated the construction of hydraulic works or laid down standards for water distribution and use to be observed by the interested parties.

The following abbreviations are used in the last column of the Table:

LN	League of Nations Treaties Series
UNTS	United Nations Treaties Series
USTS	United States Treaties Series
USTIAS	United States Treaties and other international agreements series
BRA	International laws Valid in Brazil (Rio, 1936) 2nd edition, by Hildebrando Accioly
VEN	Venezuelan Public Treaties and International Agreements (Caracas, 1925) ed. Ministry of Foreign Affairs, t.2.
USDoc	Documents on the Use and Control of the Waters of Interstate and International Streams. Compacts, Treaties and Adjudications, U.S. Department of the Interior, Washington, 1956, compiled by Richard Witmer.
USExAgS	United States Executive Agreements Series
TCArg	Treaties and Conventions of the Argentine Republic

When two sets of figures are used, separated by a colon (for example, 51:271), the first refers to the volume and the second to the page. One figure, preceded by the sign #, refers to the number of the series in the collection in question. One figure alone without the sign # refers to the document page.

TABLE II

TREATIES AND OTHER AGREEMENTS ON INTERNATIONAL RIVERS AND LAKES IN THE WESTERN HEMISPHERE

gnatory States	Date	General Purpose	Subjects Included in Conventions										Published in
			Boundaries	Navigation	Domestic Uses	Irrigation	Hydro-Power	Fisheries	Tourism	Internat. Agencies	Flood Control	Dist. Works	
			I	II	III	IV	V	VI	VII	VIII	IX	X	
rgentina-Bolivia-raguay*	10. II.1941	Pilcomayo River		x		x	x	x		x			No ratification Bolivia
rgentina-Brazil	27. VIII.1828	Peace		x									
rgentina-Brazil	7. III.1856	Peace, Friendship, Commerce, Navigation		x									BRA, 5
rgentina-Brazil	20. XI.1857	Navigation on Uruguay River		x									BRA, 210
rgentina-Brazil raguay-Uruguay	20. VI.1870	Peace		x									TCArg. 1:84
rgentina-Brazil	6. X.1898	Boundaries	x										
	27. XII.1927	Boundaries	x										UNTS, 51:271
rgentina-Chile	23. VII.1881	General Boundary Treaty	x										
	1. V.1893	General Boundary Treaty	x										
rgentina-Paraguay	15. VII.1852	Navigation, Commerce, Boundaries	x	x									
rgentina-Paraguay	29. VII.1856	Commerce and Navigation on Paraná, Paraguay, and Bermejo Rivers		x									
rgentina-Paraguay	3. II.1876	Peace		x									
rgentina-Paraguay	1. II.1926	Apipé Rapids		x			x						
rgentina-Paraguay	10. II.1941	Dredging of Paraguay River		x									
rgentina-Paraguay	1. VI.1946	Boundaries	x	x								x	
rgentina-Reino Un.	2. II.1825	Navigation on Plate River		x									
rgentina-Uruguay	5. I.1910	*Status quo* on Plate River (Ramírez-Saenz Peña)	x									x	TC Arg.
rgentina-Uruguay	*30. XII.1946	Uruguay River (Salto Grande)		x	x	x	x	x		x			No rat. Uruguay
rgentina-U.S.A.	10. VII.1853	Navigation on Paraná and Uruguay Rivers		x									USTS #3
livia-Brazil	27. III.1867	Boundaries and Navigation	x	x									BRA, 153
livia-Brazil	12. VIII.1910	Commerce and Fluvial Navigation		x									BRA, 60
livia-Brazil	10. II.1911	Boundaries in Amazon Basin	x										BRA, 157
livia-Chile	20. X.1904	Peace, Friendship, Navigation	x										
livia-Chile	27. VI.1905	Construction of Arica-La Paz Railroad										x	
livia-Paraguay	12. VI.1935	Peace Agreement of Chaco		x									
livia-Peru	17. VII.1935	Titicaca Lake						x					
livia-Peru	30. VII.1955	Titicaca Lake								x			
livia-Peru	19. II.1957	Titicaca Lake		x		x		x					
azil-Colombia	24. IV.1907	Boundaries and Navigation	x	x									BRA, 160
azil-Colombia	24. IV.1907	Modus Vivendi-Putumayo River	x	x									BRA, 217
azil-Colombia	21. VIII.1908	Commerce and Fluvial Navigation		x									BRA, 64

TABLE II (Continued)

TREATIES AND OTHER AGREEMENTS ON INTERNATIONAL RIVERS AND LAKES IN THE WESTERN HEMISPHERE

Signatory States	Date	General Purpose	Subjects Included in Conventions										Published in
			Boundaries I	Navigation II	Domestic Uses III	Irrigation IV	Hydro-Power V	Fisheries VI	Tourism VII	Internat. Agencies VIII	Flood Control IX	Dist. Works X	
Brazil-Colombia	15. XI.1928	Boundaries and Fluvial Navigation	x	x									BRA, 161
Brazil-Ecuador	6. V.1904	Boundaries	x										BRA, 163
Brazil-Holland	5. V.1906	Boundaries-Brazil-Surinam	x										BRA, 170
	22. XI.1931	Boundaries-Brazil-Surinam	x										BRA, 171
Brazil-Paraguay	7. X.1844	Navigation		x									
Brazil-Paraguay	13. VI.1856	Navigation		x									
Brazil-Paraguay	9. I.1872	Peace		x									BRA, 172
Brazil-Paraguay	18. I.1872	Friendship, Commerce, Navigation		x									
Brazil-Paraguay	21. V.1927	Boundaries, Navigation	x	x									BRA, 173
Brazil-Paraguay	9. V.1930	Boundaries, Navigation	x	x									BRA, 174
Brazil-Paraguay	14. VI.1941	Navigation on Paraguay River		x						x			UNTS, 54:303
Brazil-Peru	23. X.1851	River and Boundary Treaty	x	x									BRA, 176
Brazil-Peru	29. IX.1876	Navigation on Putumayo River		x									BRA, 223
Brazil-Peru	12. VII.1904	Purús and Yuruá Rivers	x	x									
Brazil-Peru	15. IV.1908	Yapurá and Caquetá Rivers	x	x									BRA, 223
Brazil-Peru	8. IX.1909	Boundaries and Navigation on the Amazon	x	x									BRA, 177
Brazil-Uruguay	15. IX.1857	Fluvial Navigation		x									BRA, 227
Brazil-Uruguay	30. X.1909	Navigation on Laguna Merim and	x	x									BRA, 182
	28. II.1918	Yaguerrón River	x	x									BRA, 230
Brazil-Uruguay	20. XII.1933	Rivers General Regime of Boundary	x									x	LN, 181:69
Brazil-United Kingdom	22. IV.1926	Boundaries with British Guiana	x										LN, 92:311
	18. III.1930	Boundaries with British Guiana	x										LN, 101:401
	27. III.1932	Boundaries and Regime of Mahú and Tacutú Rivers	x	x		x	x	x					UNTS, 5:86
	15. III.1940	Boundaries and Regime of Mahú and Tacutú Rivers	x										UNTS, 5:71
Brazil-Venezuela	5. V.1859	Boundaries and Fluvial Navigation	x	x									BRA, 185
Brazil-Venezuela	9. XII.1905	Boundaries and Fluvial Navigation	x	x									BRA, 185
Canada-U.S.A.	11. I.1909	Boundary Waters	x							x		x	US Doc, 379
Canada-U.S.A.	24. II.1925	Lake of the Woods		x	x	x	x	x		x			US Doc, 393
Canada-U.S.A.	26. V.1930	Sockeye Salmon Fisheries in						x					LN, 184:305
Canada-U.S.A.	21. VII.1944	Frazer River (Hell's Gate)						x					UNTS, 121:301
Canada-U.S.A.	6. XI.1935	Memphremagog Lake		x								x	Foreign Relations 1935,II,53
Canada-U.S.A.	15. IX.1938	Rainy Lake								x			US Doc, 400
Canada-U.S.A.	*19. III.1941	Navigation and Electric Power—St. Lawrence River and Great Lakes.		x			x			x			No ratif. U.S.A.

TABLE II (Continued)

TREATIES AND OTHER AGREEMENTS ON INTERNATIONAL RIVERS AND LAKES IN THE WESTERN HEMISPHERE

gnatory States	Date	General Purpose	Subjects Included in Conventions										Published in
			Boundaries I	Navigation II	Domestic Uses III	Irrigation IV	Hydro-Power V	Fisheries VI	Tourism VII	Internat. Agencies VIII	Flood Control IX	Dist. Works X	
nada-U.S.A.	10. XI.1941	St. Francis Lake		x									UNTS, 23:280
nada-U.S.A.	3. III.1944	Upper Basin of Columbia River		x		x	x				x		UNTS,109:191
nada-U.S.A.	27. II.1950	Niagara River					x		x				USTIAS # 2130
nada-U.S.A.	13. V.1954	St. Lawrence Develop. Corp.		x			x						US Doc, 358 Wiley Dondero
nada-U.S.A.	21. XII.1951	St. Lawrence Seaway Authority		x			x						Canada
nada-U.S.A.	17. VIII.1954	St. Lawrence Seaway and Great Lakes		x		x							USTIAS # 3053
nada-U.S.A.	30. VI.1952	St. Lawrence Seaway and Great Lakes											USTIAS # 3053
nada-U.S.A.	12. XI.1953	St. Lawrence Seaway and Great Lakes					x			x			USTIAS # 3116
nada-U.S.A.	13. IX.1954	Niagara River					x		x				USTIAS # 3064
nada-U.S.A.	10. XI.1954	Fishing—Great Lakes					x						USTIAS # 3326
nada-U.S.A.	24. X.1956	St. Lawrence (Roosevelt Bridge)										x	USTIAS # 3668
nada-U.S.A.	4. XII.1956	St. Lawrence (Cornwall Island)		x									USTIAS # 3708
nada-U.S.A.	26. II.1957	St. Lawrence (Detroit River)		x									USTIAS # 3772
nada-U.S.A.	9. IV.1957	St. Lawrence (St. Mary and St. Clair Rivers		x									USTIAS # 3814
ile-Peru	3. VI.1929	Tacua—Arica Partition	x			x							VEN 2:73 & 400
lombia-Venezuela	8. XII.1905	Boundaries and Fluvial Navigation	x	x									USTS # 64
sta Rica-U.S.A.	1. XII.1900	Inter-Oceanic Canal		x								x	LN 105:223
minican Republic-Haiti	20. II.1929	Peace, Friendship, Arbitration											
Salvador-Guatemala	15. IV.1957	Güija Lake				x	x			x			
rance-Holland	30. IX.1915	Boundaries—Guiana-Surinam	x	x									
exico-U.S.A.	2. II.1848	Guadalupe-Hidalgo Treaty	x	x									
exico-U.S.A.	12. XI.1884	Boundaries Grande and Colorado Rivers	x										USTS # 226
exico-U.S.A.	1. III.1889	Boundaries and Establishment of International Commission	x								x		USTS # 232
exico-U.S.A.	20. III.1905	Banks of Rio Grande	x										USTS # 461
exico-U.S.A.	21. V.1906	Irrigation from Rio Grande				x							USTS # 455
exico-U.S.A.	1. II.1933	Rectification of Rio Grande (Brair)				x					x		USTS # 864
exico-U.S.A.	14. XI.1944	Colorado, Tijuana and Grande Rivers				x	x			x	x		USTS # 994
caragua-U.S.A.	1. XII.1900	Inter-Oceanic Canal		x									USTS # 260
nama-U.S.A.	18. XI.1903	Panama Canal		x									USTS # 431
raguay-U.S.A.	4. III.1853	Navigation on Paraguay River		x									

LOS RIOS, LAGOS Y CANALES INTERNACIONALES

por Eduardo Theiler

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LOS RIOS, LAGOS Y CANALES INTERNACIONALES

por Eduardo Theiler *

Desde los tiempos más remotos han habido controversias respecto a las aguas de los ríos, lagos y canales internacionales que dividen o atraviesan el territorio de más de un Estado.

Entre los romanos, se consideraba *rivales* a aquéllos que poseían aguas en común (*rivales id est, qui per eundem rivum aquam ducunt*) (L. 26 D. de aqua cottidiana et aestiva).

Con el fin de reglamentar la materia, los Estados han llevado a cabo ciertos actos y celebrado convenciones fijando diversas normas.

Tal como observa Giovanni Lomonaco (Dir. Intern. Pub. p. 274/275) "Por otra parte, no debe parecer extraño que existan tantas convenciones referentes a la navegación de los ríos internacionales. Los poetas latinos, cuando quieren referirse al cambiante e incierto curso de las cosas humanas, hacen uso de su similitud con los ríos. Horacio dice *fera diluvies*, que *quietos irritat omnes*. Virgilio: *rapidus montano flumine torrens*, los cuales *sternit agros, sternit sata laeta, boumque labores, praecipites que trahit sylvas*. Y Lucrecio: *Fragmina dejiciens sylvarum, arbustaque tota, Dat sonitu magno stragem, volvit que sub undis, Grandia saxa*. Es por ello que, fundándose en la naturaleza del inestable elemento que es el objeto de su ordenamiento, las convenciones internacionales presentan incesantes cambios . . ."

Por lo tanto, las aguas de los grandes ríos, lagos y canales del mundo, han sido objeto de declaraciones y tratados.

Pero estas normas variaban de acuerdo con las diferentes situaciones y condiciones de los ríos, lagos y canales y de los intereses que primaban en la época en que se establecían.

Es evidente, por lo tanto, la importancia que tiene una declaración de principios comunes y generales a ser uniformemente aplicados de acuerdo con las doctrinas internacionales de los autores, la jurisprudencia y las convenciones existentes.

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* The author is Legal Adviser to the Government of Brazil and a member of the Council of the Inter-American Bar Association. The text of this paper is a translation from the Portuguese original which was written in November, 1957, and was submitted to the Conference of the Inter-American Bar Association.

Por otra parte, en su intento de establecer reglamentaciones referentes al régimen de las aguas de los ríos, lagos y canales internacionales, los tratadistas de derecho internacional han formulado diversos conceptos que pueden ser agrupados en seis sistemas.

El primero es el que reconoce el derecho de propiedad y la soberanía de los Estados, asimilando las aguas internacionales a las nacionales, confiriendo a cada Estado competencia exclusiva sobre la porción de agua que baña su territorio.

El segundo es el sistema de copropiedad y cosoberanía de los Estados ribereños a quienes se atribuye todos los derechos sobre las aguas, no reconociendo a los demás Estados el ejercicio de ningún derecho sin el consentimiento de todos los copropietarios.

El tercero es el sistema que admite en favor de la comunidad internacional, el uso inocente o inofensivo de las aguas ejercido por todos los Estados, en carácter de propiedad pública.

El cuarto es el sistema de servidumbre otorgado a los Estados que ocupan la parte superior de las aguas, con la facultad de hacer uso de ellas, desde o hasta la desembocadura.

El quinto es el sistema de vecindad, que otorga a todos los ribereños derechos y obligaciones recíprocos sin tomar en consideración la situación o los derechos de los demás Estados.

El sexto sistema es el que considera que los derechos de cada Estado quedan limitados por los derechos de los Estados ribereños y otros Estados, a ejercer comercio mutuo y tránsito internacional.

Estudiando los elementos de estos distintos sistemas, es posible fijar ciertos principios no sólo encuanto a propiedad sino también en cuanto al uso de las aguas internacionales.

A) *La propiedad*

En lo referente a la propiedad, es evidente que, dado que las tierras sobre las que reposan las aguas forman parte del territorio de los Estados—cuya propiedad detentan—tienen asimismo la propiedad de las aguas que cubren dichos territorios. El dominio se ejerce no sólo sobre las aguas de los ríos, sino también sobre el lecho, el subsuelo y el espacio aéreo correspondientes, incluyendo el derecho de jurisdicción y uso.

Por lo tanto, siendo un principio general que las aguas que bañan el territorio de un Estado forman parte del dominio del

mismo, los ríos, canales y lagos *nacionales* son de exclusiva propiedad del Estado en cuyo territorio están situados; mientras que los *internacionales* constituyen propiedad común de los Estados cuyas partes de territorios bañan o cruzan, de acuerdo con sus respectivos límites.

En los ríos *contiguos* o *limítrofes*, el dominio pertenece a cada Estado en la parte respectiva hasta la línea media de las aguas o la línea divisoria del *thalweg*. Dado que las aguas bañan o cruzan el territorio de más de un Estado, es indudable que cada Estado tiene copropiedad sobre ellos y de ahí los derechos que resultan del condominio, en los ríos *sucesivos*.

Pero de acuerdo con las leyes de copropiedad, ninguno de los copropietarios puede alterar la cosa común sin el consentimiento de los demás. Es por ello, y debido al condominio existente, que los Estados ribereños no pueden llevar a cabo actos que puedan modificar las aguas, sin un acuerdo previo entre ellos.

Además, dado que la propiedad de los ríos tiene por sujeto activo de derecho a una nación, dicha propiedad está tan justificada como la propiedad de las aguas corrientes por los individuos. El carácter social de la propiedad está más destacado y acentuado en el caso que estamos considerando, pues en él son los intereses generales de la humanidad los que orientan a cada nación, los límites directos a la propiedad de los grandes cursos de agua. Sin dejar de ser los verdaderos dueños de sus ríos, las naciones deben reconocer a todas las demás el derecho de libre uso para el intercambio de las relaciones comerciales. (M.I. Carvalho de Mendonça—The rivers in public international law [Los ríos en el derecho internacional], p. 93 n. 41.).

B) *El uso de las aguas internacionales*

El uso de las aguas internacionales puede tener por objeto: la navegación o su utilización para diversas finalidades.

I. *La navegación.*

Los ríos, canales y lagos se pueden comparar perfectamente con el mar territorial, los caminos y las tierras que existen en uno o más Estados, que, a pesar de ser propiedad de los mismos, se utilizan para el tránsito de vehículos de todas clases: embarcaciones, carros, trenes, automóviles y aviones de cualesquier Estados.

De tal manera, el tránsito pacífico o el uso inocente, de acuerdo con la expressión de Grocio, está ampliamente justificado del mismo modo que se permite el libre tránsito en los territorios y las aguas del mar territorial de los Estados.

Es obvio que su uso está condicionado a fines pacíficos y a la perfecta observancia de todas las reglamentaciones establecidas por los ribereños, las que deben ser aplicadas con absoluta equidad de tratamiento con respecto a cada uno de los Estados.

En el derecho romano, el derecho de usar las aguas, considerado como propiedad de todos los hombres por derecho natural, *jus naturale,* podía ser ejercido sobre un río que, por el derecho de las naciones *jus gentium,* pertenecía a un Estado, o por el derecho civil, a un particular.

Justiniano en el Capítulo 4 de las Institutas, *de divisione rerum,* dice:

"Riparum quoque usus publicus est jure gentium sicut ipsius fluminus . . . Sed propietas eorum illorum est quorum praediis haerent."

Los ríos son comunes en cuanto a su uso; son públicos, es decir, pertenecen al pueblo romano—que es su dueño—en cuanto a la pesca, la navegación, etc; y son comunes a todos, por derecho natural; son públicos, por derecho de gentes.

En la Edad Media, a pesar de los privilegios, restricciones y contribuciones existentes, que trababan la navegación, bajo la influencia del derecho romano, era de libre disposición el uso de las aguas de los ríos que los romanos consideraban públicos.

El régimen medioeval aún subsistía cuando Grocio (De jure belli et pacis P. II Cap. II, párrafos 12 y 13) propuso el principio del *uso inocente* de las aguas, de acuerdo con el derecho romano, con el fin de que se admitiese la libre navegación de los ríos, a semejanza de lo que ocurría respecto a la libertad de los mares.

Sin embargo, Vattel y otros autores, considerando que tal derecho era imperfecto, admitieron que su aplicación dependía del consentimiento de los Estados que eran propietarios del río, a quienes competiría decidir si el uso era o no inocente, y en caso afirmativo, los mismos no tendrían derecho a negarlo.

La libre navegación se tornó normalmente común para los Estados ribereños, pero otros autores internacionales consideraron que el derecho de uso inocente, debía ser concedido a todos los Estados.

El princicio de libre navegación fluvial—de acuerdo con los intereses generales de la comunidad internacional—es una necesidad reconocida hoy por todos los Estados, aún cuando por diferentes razones.

Dice Bluntchli (Dr. Intern. Codifié-art. 314 nota 1, p. 192-3); "La libertad de la navegación fluvial tiene por base la circunstancia de que los ríos son asimilables al mar, constituyendo ambos una única unidad. Estando el mar abierto al comercio de todas las naciones, la libertad de los mares implica (*ipso facto*) la libertad de la navegación fluvial."

También es cierto que, por el contrario, algunos autores sostienen que la libertad de navegación de un río nacional ocasionaría daños económicos al Estado al cual pertenece. (Accioly, Tr. Dir. Int. Pub. II n. 835 p. 43.)

La libre navegación no debe quedar limitada a los ríos internacionales, sino extendida a todos los ríos navegables que se comunican con el mar.

La libertad de navegación, ha dicho Fauchille (Droit Int. Pub. I II p. 437) no es una facultad que el Estado puede otorgar, sino un derecho que pertenece a todos los Estados.

De tal manera, ya sea la propiedad de los ríos, lagos y canales de un Estado, cuando *nacionales,* o de diversos Estados, cuando *internacionales,* no hay razón alguna para que se niegue la libre navegación, desde que existe la libertad de tránsito a través de los territorios de los Estados.

Sin embargo, como toda libertad, está sujeta a limitaciones. Algunas restricciones se establecen a veces sobre las aguas, a semejanza de lo que ocurre con los territorios. De tal manera, la libre navegación así como el libre tránsito terrestre, pueden prohibirse cuando existe el estado de guerra.

Han sido admitidas como restricciones a la libertad de navegación:

a) la reserva de la navegación de cabotaje por los buques que pertenecen a los Estados ribereños en defensa de sus intereses económicos y del desarrollo de su marina mercante;

b) la exclusión de la libre navegación por los buques de guerra, la que depende del consentimiento previo de los Estados ribereños, como consecuencia del derecho de defensa y conservación de los Estados.

El movimiento a favor de la libre navegación de los ríos internacionales ha sido subsiguientemente desarrollado mediante declaraciones de los Estados o por convenciones internacionales. Y en realidad, los Estados declararon abiertos a la libre navegación no sólo los ríos internacionales, sino también los nacionales.

En 1783, Francia, en el art. 8 del Tratado de París, aseguró la libertad del Mississippí a los ingleses y a los ciudadanos de los Estados Unidos, sus ribereños. Y por decreto de 16 de Noviembre de 1792, abrió el Scheldt y el Mosela a la navegación de todos los Estados ribereños y proclamó el siguiente principio: "que el curso de los ríos es propiedad común e inalienable de todos los países que bañan sus aguas; que una nación no podría, sino injustamente, pretender al derecho de ocupar exclusivamente el canal de un río, impidiendo que los pueblos vecinos que bordean el curso superior, gocen de iguales ventajas".

Posteriormente, el Congreso de Viena de 1815 extendió la libertad de navegación aún a los Estados no ribereños. El Reglamento General de Navegación, establecido por ese Congreso, dispone: Artículo 108: "Los Estados separados o atravesados por un mismo río navegable, se comprometen a reglamentar de común acuerdo, todo lo que se refiere a la navegación de dicho río".

El 10 de julio de 1853, la República Argentina firmó el Tratado de San José de Flores, permitiendo la libre navegación de los ríos Paraná y Paraguay, aún en caso de guerra, con la condición de que los buques no llevasen contrabando a ninguno de los beligerantes.

El 20 de noviembre de 1857, Brasil y Argentina declararon abiertos para todas las naciones, los ríos Uruguay, Paraná y Paraguay, desde su desembocadura hasta el interior, con exclusión de los afluentes y del cabotaje; admitiendo la libre navegación por todo el curso de los ríos, a los buques de guerra de las naciones ribereñas.

El gobierno de Brasil, por decreto n° 3.749, de 7 de diciembre de 1866, también abrió desde el 7 de septiembre de 1867 para los buques mercantes de todas las naciones, la navegación de los ríos Amazonas, Tocantins, Tapajoz, Madeira, Río Negro, S. Francisco y otros que cruzan el territorio del Brasil, incluyendo dos grandes ríos exclusivamente nacionales.

Aún cuando la libre navegación de los ríos internacionales fué proclamada en 1815 en el Congreso de Viena, en realidad ha dependido de convenciones especiales, y por tal razón dichos ríos han sido denominados ríos *convencionales*.

Pero en toda vía navegable de interés internacional debe imperar el régimen de la igualdad de derechos no solamente

para todos los Estados, sino también para los ciudadanos de todos ellos.

Sin embargo, si el Estado abre a la navegación internacional sus propios ríos, o parte de ellos, es evidente que no deberá ejecutar actos que indirectamente impidan o restrinjan la libertad previamente concedida.

De tal manera, el Estado, además de no poder hacer distingos en el tratamiento de los buques de los demás Estados, no podrá tampoco exigir contribuciones o derechos de tránsito. Se le concede, sin embargo, la percepción de impuestos destinados a cubrir los gastos de mantenimiento, mejoramiento de los ríos u otros servicios necesarios para el buen orden y la seguridad de la navegación.

No obstante, como la libre navegación no implica, para el Estado que la permite, el abandono de sus derechos de soberanía sobre las aguas, dicho Estado conservará el ejercicio de la jurisdicción sobre los trechos de río que le pertenecen.

La navegación de los ríos internacionales ha sido reglamentada por el Instituto de Derecho Internacional, en su reunión de Heidelberg, en el año 1887, tal como sigue:

a) la navegación de los ríos internacionales, desde el punto en que son navegables hasta su desembocadura en el mar, es totalmente libre desde el punto de vista del comercio y no puede prohibirse a los buques de ninguna bandera;

b) las banderas de todos los Estados, ribereños o no, deben ser tratadas en condiciones de perfecta igualdad;

c) los únicos derechos de navegación permitidos, serán aquellos que tengan carácter de retribución;

d) se permitirá a los buques extranjeros ejercer el cabotaje sólo en virtud de una concesión especial del Estado al que pertenece el trecho del río en cuestión;

e) los Estados ribereños de un río navegable están obligados a reglamentar, de común acuerdo, todo lo referente a la navegación del mismo, y establecerán entre ellos una serie de disposiciones policiales, destinadas a la reglamentación del uso del río, en interés especial de la seguridad y el orden públicos;

f) las autoridades a las que compete administrar tales ríos, son: I. las de los Estados ribereños, y II. una comisión ribereña;

g) todo Estado ribereño mantendrá su derecho de soberanía sobre los trechos de los ríos internacionales que están sujetos a ella;

h) en tiempo de guerra, la navegación de los mencionados ríos será libre para los buques de las naciones neutrales, salvo las restricciones impuestas por el giro de los acontecimientos.

En el Pacto de la Liga de las Naciones (art. 23 E) quedó estipulado que era necesario adoptar medidas para garantizar el mantenimiento de la libertad tanto de las comunicaciones como del tránsito.

En los tratados de paz subsiguientes, los ríos Elba, Ultawa, Oder, Niemen, Morava, Taia, Vístula y Danubio han sido declarados internacionales, con la más completa libertad de navegación y perfecta igualdad de tratamiento para todos los Estados, ribereños o no. (Tratados: de Versalles, art. 332, St. Germain art. 292; Trianon, art. 276; Neuilly, art. 220).

En la primera Conferencia de Comunicaciones y Tránsito, realizada en marzo de 1921 en Barcelona, la Convención General, firmada el 20 de Abril de 1921, teniendo en cuenta no el dominio sobre las aguas sino su uso, es decir primero su importancia económica y luego sus condiciones geográficas, clasificó los cursos de agua en: vías que *son de interés internacional* y en vías que *no son de interés internacional.*

La misma Convención estableció:

a) que la navegación por vías fluviales de interés internacional, es libre para todos los Estados, ribereños o no (Art. III.d.);

b) que, en el ejercicio de la navegación, los Estados serán tratados con perfecta igualdad (art. IV);

c) que esta libertad de navegación, sin embargo, tiene dos excepciones: una que se refiere al cabotaje y la otra a la tripulación de los buques de guerra y otros que ejerzan funciones públicas. La primera se reserva exclusivamente a las embarcaciones nacionales de los Estados ribereños (art. V);

d) que no deben cobrarse contribuciones salvo las retribuciones destinadas a los gastos relacionados con la navegación y el mantenimiento o mejoramiento de la navegabilidad (art. VI);

e) que los Estados ribereños deben abstenerse de adoptar medidas susceptibles de afectar la navegabilidad o disminuir las facilidades de navegación (art. VIII);

f) que será de competencia de los Estados ribereños, la adopción de medidas y la ejecución de trabajos de mantenimiento y mejoramiento de la vía navegable (art. IX);

g) que competerá a cada Estado la administración del trecho de vía navegable que se halla bajo su soberanía o autoridad; y, en consecuencia, regular la navegación en dicho trecho de modo de facilitar su libre ejercicio en el mismo.—

En el Estatuto anexo a la Convención, fueron incluídas como vías de interés internacional;

a) todos los trechos navegables, desde el mar, de un curso de agua que separa o cruza más de un Estado;

b) los cursos de agua o partes de ellos, naturales o artificiales, que se hallan sujetos al régimen de la Convención General, por actos o convenios unilaterales entre los Estados;

c) las vías navegables que están bajo el control de la Comisión Internacional.

Por el protocolo adicional del 20 de abril de 1921, se admitió que los Estados concediesen la libre navegación bajo la condición de reciprocidad, en tiempo de paz, de todas las vías navegables que no estuviesen comprendidas entre las de *interés internacional,* pero accesibles a la navegación comercial, desde y hacia el mar. La Convención declaró que, en tiempo de guerra, se respetarán los derechos y deberes de los beligerantes.

De tal manera, la Convención de Barcelona amplió los límites del principio establecido por la Declaración del Congreso de Viena, de la libre navegación de los ríos internacionales comunicados con el mar, extendiéndola a todo río internacional navegable que desemboque o no en el mar.

En América, tanto el Congreso Latinoamericano reunido en Lima, en 1847/1848, como la I Conferencia Panamericana, realizada en Washington, en 1889/1890, se manifestaron ambas en favor de la libre navegación de los buques de los Estados ribereños, no quedando, por supuesto afectados por ello ni el dominio ni la soberanía de los Estados precitados.

Las II, V y VII Conferencias Panamericanas realizadas en 1901/1902, en 1923 y en 1933, respectivamente en México, Santiago de Chile y Montevideo, resolvieron la creación de una Comisión con el objeto de estudiar el punto.

En el Congreso Hispano-Luso-Americano de Derecho Internacional, reunido en San Pablo en octubre de 1953, el Informe presentado por el Dr. José Luis de Ascárraga contenía un proyecto de convención sobre el régimen jurídico de los ríos internacionales, en el que establecía:

a) la libre navegación, tanto en tiempo de paz como de guerra, para los buques mercantes de todos los Estados, ribereños o no (art. III);

b) la utilización por parte de los Estados ribereños, de las aguas del trecho que les corresponde, siempre que no cause daño a la navegación general o a los intereses agrícolas o industriales, etc. de los demás Estados ribereños (art. IV).

Clovis Bevilaqua (Der. Pub. Intern. Párrafo 206) estableció como regla general: "La navegación de los ríos internacionales contiguos, que desembocan en mar abierto, es libre para los buques de todos los Estados de la comunidad internacional." "La mayoría de los autores, ampliando este concepto, extienden esta norma a los ríos que atraviesan los territories de dos o más naciones."

Podestá Costa sintetiza la doctrina, diciendo: "La evolución operada desde fines del siglo XVIII en lo referente a la navegación de los ríos internacionales, indica que se han conciliado en parte los factores en juego, que son los intereses de los Estados ribereños y los de la comunidad internacional; reaccionándose contra el exclusivismo de los ribereños que sólo admitían el derecho de navegación para sus buques en la parte correspondiente a sus respectivas costas, y a veces era monopolio del Estado que poseía la desembocadura." (Der. Pub. Intern. p. 235/245.)

Actualmente el régimen varía según que los ríos sean *internacionales*, abiertos a la navegación de todos los Estados; o sólo abiertos a los ribereños y a algunos Estados; y los ríos *internacionalizados* en los que la soberanía de los Estados ribereños queda restringida por la intervención de la Comisión Internacional que los toma a su cargo.

Cuando los lagos y canales están situados entre más de un Estado, se los trata, por analogía, como a los ríos internacionales. Cada Estado mantiene su dominio hasta la mitad de las aguas, y su jurisdicción sobre los márgenes, pero el derecho de navegación es común entre los ribereños, y se extiende a todos los Estados, cuando tienen comunicación con el mar libre.

II. *La utilización.*

La utilización de las aguas internacionales puede tener las finalidades más variables e importantes:

a) por su captación o derivación hacia: uso potable; irrigación de tierras; transformación en energía hidráulica, motriz o electrica; diferentes aplicaciones en obras industriales o agrícolas;

b) por la extracción de animales: peces, anfibios, crustáceos y moluscos; vegetales, diversas plantas; minerales, sal, petróleo, arena u otras substancias que existen en su fondo o márgenes.

Los Estados tienen derecho a la utilización de las aguas que bañan sus territorios. Sin embargo, la utilización de las aguas por parte de los Estados ribereños, no puede ser efectuada de modo que resulte en una disminución, aumento o supresión susceptible de alterar las condiciones naturales de las aguas de los demás Estados, siendo la causa de perjuicios, al impedir su anterior uso o tránsito, de cualesquiera daños o perjuicios posibles, tales como desbordamientos, etc.

El uso de las aguas está condicionado por las limitaciones impuestas por las reglamentaciones de la policía administrativa, las ordenanzas municipales referentes a navegación y pesca, y por la utilización con fines industriales o agrícolas.

Sin embargo, los Estados ribereños no pueden establecer reglamentaciones referentes a el trecho de aguas sobre el que ejercen su jurisdicción, que puedan afectar los derechos de los demás Estados.

En el derecho romano, se permitía extraer agua de los ríos públicos, quedando libre el uso de sus derivaciones. El Digesto, en el libro 43, capítulos XII y XIII, reglamenta especialmente las aguas: *"ne derivationibus minus concessis flumina excrescant,"* pero las derivaciones no son admitidas si resultan nocivas para la navegación.

Las Institutas de Justiniano disponen: "Los ríos y puertos son públicos; por tal razón, corresponde a todos (el pueblo) el derecho de pescar en ellos" (L.2°, Cap. I, de divis, rerum).

En Portugal y en Brasil, los Estatutos del 27 de noviembre de 1804 y del 4 de marzo de 1819 admitían que cualquiera podía extraer agua de cualquier río o canal, para irrigar sus tierras o bien desagotarlas si estaban inundadas, siempre que ello no dañara la navegación o los derechos de terceros.

La simple pesca individual es un derecho libre para todas las personas, pero su explotación comercial en gran escala depende de la autorización del gobierno de los Estados en los que se encuentran las aguas. Queda prohibido, sin embargo, el uso de ciertos medios considerados perjudiciales para la reproducción y el desarrollo de los peces.

Se admite por lo general, que los Estados bajo cuyo dominio se encuentran las aguas, tienen derecho a reglamentar la pesca.

Se reconoce a los Estados ribereños el aprovechamiento industrial y agrícola de las aguas para irrigación y energía hidráulica y eléctrica, dentro de la limitación de los derechos de los demás Estados.

El Instituto de Derecho Internacional, en su reunión de Madrid, en 1911, estableció reglamentaciones que pueden ser sintetizadas tal como sigue: Un Estado ribereño no puede, sin consentimiento de los demás efectuar modificaciones perjudiciales para los otros, tales como:

a) las que vuelvan nociva el agua;

b) las que signifiquen la extracción de tal cantidad de agua que puedan modificar el carácter del río;

c) las que violen el derecho de navegación;

d) las obras susceptibles de provocar inundaciones.

Sin embargo, la II Conferencia de Comunicaciones y Tránsito, que se realizó en Ginebra en 1923, adoptó una convención sobra la utilización de la energía hidráulica que interese a más de un Estado, por la cual cada Estado conserva la libertad de ejecutar, a su conveniencia, dentro de su territorio, obras que produzcan energía hidráulica, debiendo sin embargo los Estados interesados, proceder conjuntamente en cuanto a los estudios necesarios, así como negociar los acuerdos convenientes.

La Comisión Permanente de Codificación del Derecho Internacional Público de Río de Janeiro, en su informe del 23 de julio de 1932, presentado a la Unión Panamericana, adoptó como base de estudio para la 7a Conferencia Internacional Americana, el siguiente principio, que fué considerado fundamental: "Para la utilización de las aguas de los ríos internacionales, en el interés industrial o agrícola, es indispensable que exista un acuerdo entre los Estados ribereños, dado que este aprovechamiento puede influir, de cualquier modo, sobre el otro margen, si el río es contiguo; o sobre el territorio del Estado vecino, si el río es sucesivo."

Y la VII Conferencia Internacional Americana, reunida en Montevideo en 1933, aprobó los siguientes principios:

a) los Estados tienen derecho exclusivo a explotar las aguas de los *ríos contiguos* compredidos dentro de su jurisdicción para fines industriales o agrícolas. Sin embargo, este derecho queda subordinado a la condición de no afectar derechos iguales de otro Estado en el margen opuesto. El mismo principio se aplica a los ríos sucesivos;

b) las obras que un Estado proyecta sobre las aguas de los ríos internacionales deben ser previamente comunicadas a los demás ribereños, juntamente con la documentación necesaria. La respuesta debe ser dada dentro de los tres años, con o sin observaciones;

c) en ningún caso, las obras de explotación industrial o agrícola pueden ser perjudiciales a la navegación;

d) en caso de no existir ningún acuerdo entre los Estados que están interesados en ello, el conflicto será sometido a conciliación, y de no dar resultado, a un tribunal arbitral.

Los Estados ribereños deben, pues, regular de común acuerdo la utilización de las aguas internacionales.

La Asociación de Derecho Internacional, en la Conferencia que tuvo lugar en Dubrovnik, en agosto de 1956, de acuerdo con el Informe de su Comisión sobre los usos de las aguas de los ríos internacionales y los comentarios de algunas de las Secciones y Miembros de la Asociación, adaptó ciertos principios que pueden ser resumidos como sigue:

Mientras cada Estado tenga control soberano sobre los ríos internacionales comprendidos en sus propios límites, el Estado debe ejercer dicho control teniendo debidamente en cuenta sus efectos sobre los demás estados ribereños. (III.)

Todo Estado será responsable, de acuerdo con el derecho internacional, por los actos públicos o privados que produzcan un cambio en el régimen existente de un río, en perjuicio de otro Estado, y que pudieran haber sido prevenidos ejerciendo la debida diligencia. (IV.)

Los Estados o tribunales, al cumplir acuerdos o al zanjar diferencias, deben tener en cuenta:

a) el derecho de cada uno de ellos al uso razonable de las aguas;

b) el grado de dependencia de cada Estado respecto a las aguas del río en cuestión;

c) los beneficios sociales y económicos relativos para cada uno de ellos así como para la comunidad ribereña entera;

d) los acuerdos pre-existentes entre los Estados interesados;

e) la apropiación de agua precedentemente efectuada por otro Estado. (V.)

Todo Estado que proponga nuevas obras (construcción, desviaciones, etc.) o cambio del uso anterior de agua, que pudiera afectar la utilización de la misma por otro Estado, debe con-

sultar previamente con dicho otro Estado. En caso de no llegarse a un acuerdo mediante tal consulta, los Estados interesados deben procurarse el asesoramiento de una comisión técnica, y, si asimismo no se llegase a un acuerdo, será necesario recurrir al arbitraje. (VI.)

La contaminación de agua de un estado que produzca serios perjuicios a otro estado, hace responsable al primero por el daño ocasionado. (VII.)

La total utilización de las aguas de un río debe ser ejercida mediante acuerdo entre los Estados ribereños, desde el punto de vista del lecho del río como unidad integrada, y desde el punto de vista de la más amplia variedad de usos del agua, de modo de asegurar los mayores beneficios para todos. (VIII.)

Teniendo en cuenta todas las fases del problema, se pueden establecer los principios siguientes:

1.—Los ríos, lagos y canales internacionales son propiedad del Estado, en los trechos de los territorios que bañan, separan o atraviesan.

2.—De acuerdo con el derecho de propiedad, los Estados ribereños tienen jurisdicción sobre los ríos, lagos y canales internacionales, y, en consecuencia, el derecho de establecer reglamentaciones sobre policía y vigilancia, y derechos aduaneros sobre dichos trechos de agua.

3.—Los Estados ribereños tienen la facultad de percibir impuestos destinados a los gastos de mantenimiento, mejora y otros servicios necesarios a las aguas.

4.—Se reconoce a todos los Estados, en su carácter de miembros de la comunidad internacional, el derecho de libre navegación por aguas internacionales, en condiciones de perfecta igualdad.

5.—Los Estados ribereños pueden establecer reservas, restringiendo el libre tránsito:

a) en tiempo de guerra;

b) con referencia a la tripulación de buques de guerra;

c) respecto a la navegación de cabotaje entre sus puertos.

6.—En el ejercicio de sus poderes jurisdiccionales, los Estados ribereños no pueden llevar a cabo por sí mismos, acciones u omisiones de ninguna naturaleza, que directa o indirectamente modifiquen el carácter esencial de las condiciones normales de las aguas:

a) alterando o suprimiendo enteramente su curso, impidiendo que lleguen a los territorios de los ribereños;

b) provocando inundaciones en los territorios de los otros Estados;

c) causando obstáculos a la libre navegación, a la pesca o a la utilización de las aguas;

d) tornándolas nocivas (contaminándolas).

7.—Los Estados ribereños que deseen ejecutar obras que puedan alterar o modificar la situación normal de las aguas, deben obtener previamente el consentimiento de los demás Estados.

8.—Los Estados que sean responsables de los actos ejecutados en su territorio, que en algún modo afecten aguas internacionales, perjudican a los demás Estados.

9.—Todas las disputas sobre aguas internacionales, deben ser solucionadas por acuerdos directos entre los Estados interesados. En caso de no llegar a un acuerdo, las controversias deben ser sometidas a la Corte Internacional.