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PRINCIPLES OF LAW AND RECOMMENDATIONS ON THE USES OF INTERNATIONAL RIVERS

Statement of Principles of Law and Recommendations with a Commentary and Supporting Authorities Submitted to the International Committee of the International Law Association by the Committee on the Uses of Waters of International Rivers of the American Branch

May, 1958

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PRINCIPLES OF LAW AND RECOMMENDATIONS GOVERNING THE USES OF INTERNATIONAL RIVERS, AND COMMENTS THEREON

By the Committee on the Uses of Waters of International Rivers, of the American Branch of the International Law Association *

Introduction

In recent years the United Nations, governmental legal advisers and legal associations the world over have greatly intensified their interest in the law governing the uses of international rivers. Beginning with Professor Eagleton's

* The members of the American Committee who have participated actively in the preparation of this Commentary are Alanson W. Willcox, Chairman, Miss Florence Brush and Messrs. William L. Griffin, Gove Harrington, Abraham M. Hirsch and John G. Laylin. Professor Richard R. Baxter of the Faculty of the Harvard Law School participated in the formulation of the Statement of Principles of Law and Recommendations, but owing to pressure of other work had to resign from the Committee before the final draft was completed. Mr. Homer G. Angelo, also a member of the American Committee, concurs in the Statements of Principles of Law and Recommendations and Comments prepared by the Committee of the American Branch with the following observations. He shares the view of the other members of the Committee that it is a difficult if not bootless exercise to seek to differentiate between established rules of international law and doctrines that are not yet but may soon be recognized as rules of law. He believes that many similar difficulties attend an effort to predict what sources would be found to be controlling by an international tribunal such as the International Court of Justice. In analyzing these principles and recommendations, Mr. Angelo believes that an international tribunal such as the International Court of Justice *should* apply the substance of all of them in settling an international water problem involving their consideration. As to some of the principles and recommendations, such as Principle II, he prophesies that the International Court of Justice *would*—on the basis of existing sources enumerated in Article 38 of the Court's Statute—find such principles to be controlling. As to some other principles, such as Principle V, he believes that he does not have sufficient information to form an opinion as to whether the International Court of Justice would find such principles controlling. The other member of the American Committee, Mr. Asa Jennings, was not available to take part in the preparation of this Commentary.

Miss Brush (of Milbank, Tweed, Hope and Hadley, New York City) and Mr. Harrington (of Meyer, Kissel, Matz and Seward, New

report to the 1954 Edinburgh Conference, the International Law Association has actively concerned itself with the study of this field of international law. The reasons for this activity are apparent. With expanding populations and aspirations to improve or maintain standards of living have come the means, engineering and financial, of changing the natural regime of river systems so as to achieve great benefits for the entire river community. Unfortunately, these same means can also be used for the benefit of only one national group, perhaps to the serious harm of another. The problems raised are immediate for not a few countries. Not only are they immediate, they may actually involve the ability of some countries to survive. For other countries the problems are of future concern, perhaps not vital but certainly not unimportant. Even to the detached scholar the uses of international rivers are a peculiarly interesting testing ground for that area of the law that treats of state responsibility for acts within a state that, though not unlawful domestically, become a matter of international concern because of adverse effects outside its boundaries.

York City) have done special research in the field of international law as applied to rivers under Clyde Eagleton. Dr. Hirsch wrote a doctoral dissertation at Columbia University on the legal and political aspects of the uses of international rivers in the Middle East, and has since been a consultant on problems connected with international water utilization; he is currently doing research for the Institute of International Law, New York University, under the Ford Foundation grant made to the Institute. Mr. Griffin, who is an attorney in the Office of the Legal Adviser, United States Department of State, prepared the State Department Memorandum on the Legal Aspects of the Use of Systems of International Waters, an excerpt from which is attached as an exhibit. Mr. Angelo is a Professor of Law at Stanford University Law School and Chairman of the Section of International and Comparative Law of the American Bar Association. Mr. Willcox is a member of the Bar of New York State and of the District of Columbia, now practicing in Washington, D. C. In 1956 he did special research within this field for Covington & Burling, a Washington law firm of which Mr. Laylin is a member. This firm has advised states of the United States and is currently advising two foreign governments, with regard to the rights of riparians on interstate and international rivers.

The Committee is deeply indebted to the late Cylde Eagleton who permitted its members to study his notes and passed on to them the results of the research, made possible by a Ford Foundation grant, which was being carried on under his direction, and conferred with the Committee members up to the day of his death. Grateful acknowledgment is made to Messrs. Rinaldo L. Bianchi, Donald E. Claudy and James R. Patton, associates in Covington & Burling, for invaluable research and helpful drafting and suggestions. The opinions expressed are, of course, the personal conclusions of the active members of the Committee.

Before reviewing the action taken directly and indirectly as the result of Clyde Eagleton's initiative, tribute must be paid to earlier work in this field. First among the associations of lawyers and publicists was the Institut de Droit International. Its Declaration of Madrid of 1911 is a landmark.[1] The Declaration of Montevideo of 1933 by representatives of the American States is another noteworthy contribution.[2] In the area of conventional law there are the Geneva Convention of 1923 [3] (dealing principally with hydro-electrical uses) and the Barcelona Convention of 1921 [4] (dealing with navigational uses). In addition to this work courts in federal nations, of course, have been called upon to resolve river disputes comparable to international river disputes. Drawing as they do from the very materials which are the sources of international law, the decisions of these courts have developed a jurisprudence of foremost importance.[5] Also drawing from these sources, and from the Declaration of Madrid, the Geneva Convention and other source materials, a commission for the Indus Basin promulgated and won unanimous acceptance by the disputants before it of a statement of principles that cannot be overlooked by any student in this field.[6]

The leading book on this subject, published in 1931, is that of H. A. Smith, a member of the international committee of the I.L.A.[7] An important work of more recent date and concentrating on hydro-electrical uses in Europe is that of M. Pierre Sevette, Chief of the Power Section, Power & Steel Division of the Economic Commission for Europe and also a member of the international committee of the I.L.A.[8] Comparable to this in the Western Hemisphere, but dealing with uses generally, is the study of Dr. Guillermo J. Cano of the United Nations, U.N. Technical Assistance Administration Expert in Water Legislation and a member of the Economic Commission

[1] See *infra*, Appendix A at 54.

[2] *Id.*, at 63.

[3] *Id.*, at 56.

[4] 7 L.N.T.S. 36-63; 18 AM. J. INT'L L. (1924) SUPPL. 151-165.

[5] See *infra*, notes 17-19 at 31-35.

[6] See *infra*, Appendix D at 97.

[7] SMITH, THE ECONOMIC USES OF INTERNATIONAL RIVERS (1931). Hereinafter this work will be cited as "Smith."

[8] SEVETTE, LEGAL ASPECTS OF HYDRO-ELECTRIC DEVELOPMENT OF RIVERS AND LAKES OF COMMON INTEREST (1952), U. N. Document No. E/ECE/136. Hereinafter this work will be cited as "ECE Report."

for Latin America Group on Hydraulic Resources at the Commission's headquarters in Santiago, Chile.[9] The recent report of a panel of experts to the United Nations Economic and Social Council stresses the implementation of integrated river basin development.[10] The recommendation of this panel that the United Nations set up a division to cooperate with nations desiring to participate in integrated river basin development is currently being considered by ECOSOC.

The committee established by the I.L.A. pursuant to the initiative of Clyde Eagleton reported to the Association's Conference at Dubrovnik in August, 1956. The report had not been circulated early enough for all branches and members to prepare and circulate their comments. Certain notes, however, were prepared in support of the Committee's report and one was prepared in opposition. Members of the committee of the American Branch prepared and circulated a set of Observations on the note in opposition. With these papers before the Conference, and another submitted there, it was decided to continue the committee, to enlarge its membership and the scope of its work, and to adopt a statement of principles "as a sound basis upon which to study further the development of rules of international law with respect to international rivers."

The enlarged international committee has exchanged views by correspondence and at a meeting held in Geneva in October, 1957. It has had the benefit of the published results of other study groups. Notable amongst these are the report to the IX Commission of the Institut de Droit International by Mr. Juraj Andrassy,[11] a member of the International Law Association who prepared a note on the uses of the waters of international rivers for the Dubrovnik Conference, and the resolution adopted by the Inter-American Bar Association at its Tenth Conference held in November, 1957, at Buenos Aires.[12]

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[9] Cano, *The Juridical Status of International (Non-Maritime) Waters in the Western Hemisphere*, printed in INTER-AMERICAN BAR ASSOCIATION (submitted to), PRINCIPLES OF LAW GOVERNING THE USES OF INTERNATIONAL RIVERS AND LAKES, 72-111. Washington, D. C., 1958. (Lib. Cong. Cat. Card No. 58-12112.) Hereinafter cited as "PRINCIPLES . . . RIVERS AND LAKES."

[10] INTEGRATED RIVER BASIN DEVELOPMENT (1958), U. N. Document No. E/3066.

[11] ANDRASSY, UTILISATION DES EAUX INTERNATIONALES NON MARITIMES (EN DEHORS DE LA NAVIGATION). Institut de Droit International (1957).

[12] See *infra*, Appendix A at 72.

A most significant study setting forth the position of the United States as to the customary law governing international rivers is contained in a memorandum submitted on April 21, 1958, by the State Department to a committee of the United States Senate. The first parts of the memorandum deal with a treaty between the United States and Canada; the remainder, which deals with the customary international law, is attached as an exhibit. The exhibit contains also an excerpt from the Statement (presented April 21, 1958) to the Committee on Interior and Insular Affairs of the United States Senate by Deputy Assistant Secretary of State Frederick W. Jandrey.

The enlarged international committee of the I.L.A. received a communication from one of its members suggesting that the committee should undertake to distinguish between those principles that may be said to represent *lex lata* and those principles that may be said to represent *lex ferenda*. In the view of the American Branch Committee, such a distinction would be more confusing than helpful.

The original meanings of the phrases *lex lata* and *lex ferenda* are quite clear.[13] The phrases have, however, taken on new and different meanings for different schools of legal thought and for different lawyers. The distinction between *lex lata* and *lex ferenda* is sharp when the phrases are

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[13] The terms *lex lata* and *lex ferenda* are etymologically related to the terms "legislation." A *lex*, in ancient Rome, was a proposal for a law, which was made to the people by a magistrate from the rostrum. It was approximately what is known today as a "bill." To offer or present a bill to the people for action was called *legem ferre*, or "to bring (forth) a bill." Once the bill had carried, or was passed, the *lex* became *lata*, or "brought through." A *lex* to be brought forth before the proper legislative authorities was spoken of as *lex ferenda*. In the following discussion of the evolving customary international law governing the continental shelf, Kunz uses *de lege ferenda* in this original legislative sense, and such a use points up its inapplicability to the growth of customary law:

> We may conclude: the doctrine of the continental shelf, in this restricted sense, is not yet a norm of general customary international law; but in view of the practice of a number of states, the lack of protests, and the general consent of writers, with the exception of Scelle, . . . it can be considered as a new norm of general customary international law *in fieri, in statu nascendi;* there is a clear tendency toward the coming into existence of this new norm; in time the doctrine of the continental shelf, in this restricted sense, will become a new norm of customary general international law, whatever may be the fate of the proposal *de lege ferenda* of the Internation Law Commission. (Kunz, *Continental Shelf and International Law: Confusion and Abuse*, 50 AM. J. INT'L L. 828, 832 [1957].)

used with reference to legislative law. Thus the phrases are useful for those lawyers who in effect deny the existence of customary international law by insisting that such law is binding only to the extent that it is expressly acknowledged by states. This distinction fades, if it does not disappear altogether, for those who recognize the existence and continuous growth of customary international law.[14]

International law is not static. Like all living systems it grows and changes. Recognition of what the law is may follow long after the law comes into being. This is peculiarly true of the law based upon international custom giving evidence of general practice accepted as law.[15] In the view of this committee it is artificial to seek to identify nice gradations between principles that are already generally recognized as constituting existing law, principles that are coming to be recognized as representing already existing law, principles that are recognized as becoming existing law, and so on. Such classifications may appear to be scientific, but they do not fit a living system such as the law. Customary law necessarily develops by accretion, and as Prof. H. A. Smith pointed out at the Geneva meeting of the international committee in October, 1957, the recognition and expression of customary law necessarily lags.

The Committee feels that the more realistic approach is to formulate an opinion as to what principles the World Court, drawing on the material enumerated in Article 38 of its Statute, would find to be controlling upon it in a case in which it was asked to reach a decision. The Court's function is to decide disputes "in accordance with international law" and is not different, in this respect, from that of any other international tribunal called upon to decide a case in accordance with international law.[16]

In undertaking its suggested revisions of the principles adopted at Dubrovnik, the committee has gathered and weighed the source materials indicated in Article 38 of the Statute of the World Court, and undertaken to formulate from them the general propositions that in its opinion would guide the Court. In addition the committee has made certain recommendations which do not purport to be a formulation of law, but are suggestions as to good practices which states should follow when seeking to reach a just and fair solution of any differences with respect to the uses of a system of international waters.

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[14] The phrases *lex lata* and *lex ferenda* are bound to give rise to ambiguities and confusion because of the different meanings which different persons attach to them. They may be understood and expressed to indicate the historical concepts of accomplished international legislation and mere proposals, respectively; they have been used to distinguish between law, however arrived at, that has been expressly recognized, as in a decision of the International Court of Justice, and law that is in the process of evolving or even that may have evolved but has not yet been authoritatively expressed; or they may be used to refer to existing and non-existing international law as derived from some sources but not others—all depending on the different predilections of different lawyers. As pointed out by Professor Roberto Ago in his recent article on positive law and international law, a great deal of confusion is introduced by different persons using the same words but attaching to them different meanings. He writes:

> So it often happens that discussions are falsified because different authors make use of the same term but give it different meanings, or on the other hand because they use different terms to mean the same thing. Further complications arise when an author uses the same word with different meanings without being aware of it, or at any rate without warning his reader. (Ago, *Positive Law and International Law*, 51 AM. J. INT'L L. 691 at 692 (1957); translation by Miss Judith A. Hammond of the article, *Diritto Positivo e Diritto Internazionale*, in Vol. I, of STUDI IN ONORE DI TOMMASO PERASSI. The article appears in German in Vol. 6 of the ARCHIV DES VÖLKERRECHTS, No. 3 (August, 1957) at pp. 257-307.)

[15] Justice Cardozo has written:

> International law . . . has at times, like the common law, . . . a twilight existence during which it is hardly distinguishable from morality or justice, until at length the *imprimatur* of a court attests it jural quality. (New Jersey v. Delaware, 291 U.S. 361, 383 [1934].)

And Judge Altamira has 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 rule of positive law appertaining to that category. (Lotus case, P.C.I.J., Series A, No. 10, pp. 106-107, 2 HUDSON, WORLD COURT REPORTS 91 [1927].)

[16] In Tentative Draft No. 1 of the RESTATEMENT OF THE FOREIGN RELATIONS LAW OF THE UNITED STATES (1957), submitted by the Council to the members of the American Law Institute, much the same standard for the definition of international law was adopted and described as follows at p. 4:

> When the term "international" is used in this Restatement to describe a rule, therefore, it is meant to express the rule which would be applied by an international tribunal, if the matter were to come before it, or the rule that civilized nations would accept in working out a negotiated settlement of a dispute between them.

The Committee has not made a study of any customary law peculiar to navigational uses of international rivers. The suggested principles are believed to be consistent with such international custom as may exist concerning navigational uses,[17] but some amplification in this regard may ultimately be desirable.

The revision of principles of law and recommendations worked out by the committee is as follows:

[17] In view of the decision of the international committee at its Geneva meeting of October, 1957, not to include a study of navigational uses for the present, it is perhaps unfortunate that the program for the 1958 Conference of the International Law Association describes the work as dealing with international "waterways," which may suggest a primary emphasis on navigation.

STATEMENT OF PRINCIPLES OF LAW AND RECOMMENDATIONS GOVERNING THE USES OF INTERNATIONAL RIVERS

By the Committee on the Uses of Waters of International Rivers, of the American Branch of the International Law Association.

Principles of Law

I. As used in this statement: "system of international waters" refers to the inter-connecting waters within a natural drainage basin any part of which is within the territory of two or more states; and "riparian" and "co-riparian" refer to states having jurisdiction over parts of the same system of international waters.

II. A riparian has the sovereign right to make the fullest use of the part of a system of international waters under its jurisdiction consistent with the corresponding right of each co-riparian. Competing uses or their benefits must be shared on a just and reasonable basis. In determining what is just and reasonable, account is to be taken of rights arising from agreements, judgments and awards, and from lawfully established beneficial uses, and of such considerations as the potential development of the system, the relative dependence of each riparian upon the waters of the system, and the comparative social and economic gains accruing, from the various possible uses of the waters, to each riparian and to the entire community dependent upon the waters.

III. A riparian is under a duty to refrain from causing a change in the existing regime of a system of international waters which could interfere with the exercise by a co-riparian of its right to share on a just and reasonable basis in the benefits of the system without first giving the co-riparian an opportunity to object; and if objection is made, to refrain from causing the change so long as the co-riparian demonstrates its willingness to reach a prompt and just solution by the pacific means envisaged in the Charter of the United Nations, including a determination by the International Court of Justice or other agreed tribunal.

IV. A riparian's duty to refrain from taking action in violation of a co-riparian's rights includes the duty to prevent others, for whose acts it is responsible under international law, from taking such action.

V. A riparian may not unreasonably withhold from a co-riparian, or refuse to give it access to, data relevant to the determination or observance of their respective rights and duties under the existing regime of the system of international waters, or data with respect to any proposed change in that regime.

VI. A riparian is under a duty to refrain from increasing the level of pollution of a system of international waters to the substantial detriment of a co-riparian.

Recommendations

I. It is recommended that pollution by a riparian, even though not unlawful, which causes detriment to a co-riparian should be gradually rendered substantially harmless.

II. It is recommended that so far as possible co-riparians join with each other in making the fullest possible utilization of the waters of their system, taking into account the system as an integrated whole and the widest variety of uses of the waters, to assure the greatest benefit to all.

III. It is recommended that co-riparians establish commissions to collect and exchange technical data, to make studies for the better utilization of the waters of their system and to anticipate and resolve conflicts over the uses of the waters of the system and the fair distribution of the cost of proper maintenance, operation and development.

IV. It is recommended that the United Nations should establish an office to serve as a central clearing house of information concerning systems of international waters and should provide assistance to a riparian which seeks to reach a peaceful resolution of differences with co-riparians and technical or other experts when so requested by a riparian.

These suggested principles of law and recommendations will now be discussed paragraph by paragraph.

COMMENTS ON PRINCIPLES OF LAW

I

As used in this statement: "system of international waters" refers to the inter-connecting waters within a natural drainage basin any part of which is within the territory of two or more states; and "riparian" and "co-riparian" refer to states having jurisdiction over parts of the same system of international waters.

In this paragraph we are concerned only with the practical problem of insuring that the subsequent principles are made to apply to all those areas in which one riparian by its acts may affect another riparian. The purpose of this paragraph is to make clear that the principles apply to any watercourse, either contributory or distributary, with respect to which physical action could be taken by one riparian, within its jurisdiction, which could affect in any way the regime of the same or any connecting watercourse within the jurisdiction of another riparian.

The definition in Dubrovnik Principle I states merely that an "international river is one which flows through or between the territory of two or more states." It is the Committee's view that the application of the principles is not limited to what might be considered an "international river" for other purposes, and that it is therefore preferable to use the broader phrase "system of international waters," and to make clear that this phrase is defined only for purposes of the present statement.

By defining "system of international waters" as those inter-connecting waters within a natural drainage basin, the paragraph is consistent with the fact that the catchment area or river basin is the geographic and physical unit by which one can determine what makes up a river or watercourse—what in fact can affect or does affect the quantum and quality of its flow and the character or nature of its regime. The use of this terminology—"natural drainage basin," "catchment area" or "river basin,"—is general practice among engineers and others who are concerned with the problem of water use. Its use is consistent with the view strongly expressed by many engineers, economists and lawyers that a river basin should be treated as an integrated whole. The definition also conforms to that generally favored by the members of the international committee

of the International Law Association at their meeting in Geneva in October, 1957 (based on Professor Eagleton's Summary Digest of Discussion at Geneva Meeting of October 14-16, 1957, of the Committee on International Rivers of the I.L.A.).

The use of the adjective "international" in the phrase "system of international waters" does not by itself connote any obligations under law except as specifically set out in the principles which follow. It is only where action by one riparian on some part of the system of international rivers can affect the regime on another part of the system within the jurisdiction of another riparian that a question of international law arises. For example, if a change in the existing regime of a watercourse does not interfere with the exercise by a co-riparian of its rights in the system, the mere fact that the watercourse falls within the definition of this paragraph would not carry with it any corresponding obligations. There is thus no occasion to exclude streams which, because of their smallness or their distance from an international boundary, are unlikely to have international importance; these circumstances merely lessen the likelihood that the principles would have any practical application in such cases.

The practice in both treaty-making and adjudications supports with only few exceptions the view that intrastate tributaries are to be taken into account whenever the manner of their use may have international effects.[1]

Proceedings dealing with the identification of the waters described by the phrase "international river" in a treaty, with the distribution of the supplies of a river, and with pollution, have drawn no distinction between supplies furnished by the main river and those furnished by tributaries.[2]

Among academic writers definitions of "international waters" and similar phrases have led to considerable debate;[3] but the various definitions must be scrutinized to determine what function their authors intended them to serve. It is one thing to say that a tributary wholly within one state is not an "international river" as a matter of lexicography; it is quite another to say that things done on the tributary should for that reason be deemed to be excluded from the area of international concern.

The Committee recognizes that some writers have made a distinction between the principles of law applicable to contiguous and successive rivers. The Committee has concluded, however, that for the purposes of this statement no distinction should be made. The principles stated herein, as well as the recommendations, apply equally to contiguous and successive rivers. While these principles and recommendations may have different results when applied in the case of contiguous or successive rivers, this does not mean that the principles themselves, insofar as they are stated by the Committee, are different.

The use of the words "riparians" and "co-riparians" is simply a matter of convenience to avoid the repetitious use of the expression "states having jurisdiction over parts of the same system of international waters." Its utility is obvious.

II

A riparian has the sovereign right to make the fullest use of the part of a system of international waters under its jurisdiction consistent with the corresponding right of each co-riparian. Competing uses or their benefits must be shared on a just and reasonable basis. In determining what is just and reasonable, account is to be taken of rights arising from agreements, judgments and awards, and from lawfully established beneficial uses, and of such considerations as the potential development of the system, the relative dependence of each riparian upon the waters of the system, and the comparative social and economic gains accruing from the various possible uses of the waters, to each riparian and to the entire community dependent upon the waters.

This principle represents a consolidation of the substance of Principles III and V of the Dubrovnik statement of 1956. Further study has led the Committee to adopt minor refinements of the old texts and to cast the language in affirmative terms. It has also seemed desirable to couple the statement of the fundamental rights of riparians with the standards by which such rights can be given concrete recognition.[4]

Dubrovnik Principle III recognizes the duty of riparians to exercise control over international rivers within their boundaries "with due consideration for its effects" on other riparians. This is in effect a negative statement. Dubrovnik Principle V moves into the positive rights of riparians, including the right of each to a reasonable use of the water. The present text endeavors to state affirmatively the rights and duties of riparians toward one another. In addition, the factors which have been considered relevant to the settlement of conflicting claims have been retained in the present text.[5]

The negation of a riparian's right to dispose at will of the waters of an international river and the existence of a right in every riparian to make use of the waters of the system find support in the conclusions reached by every international group which has dealt with the problem.[6]

The positive rights and duties of riparians are evidenced by the existence of several hundred treaties and international agreements. In all of these, the signatories recognize mutual obligations.[7] Not only do the terms of particular agreements reflect the principle of mutuality of rights and duties, but their great number, coupled with the infrequency of instances in which riparians have disregarded the protests of interested states, testifies also to the widespread belief that no riparian is entitled to arrogate to itself the right to develop an international river oblivious of the corresponding rights of co-riparians. These treaties and conventions cover international river basins from all continents and reflect the adherence to some principles of truly world-wide application whose consistent acceptance by states gives evidence of their binding character.[8]

The recognition of corresponding rights of riparians is commonplace among quasi-sovereign states and provinces of federated countries, and finds expression in a multitude of inter-state and inter-provincial agreements. Examples are afforded by such countries as the United States,[9] Argentina,[10] India,[11] Australia,[12] and Switzerland.[13]

States have only rarely denied the corresponding rights of co-riparians to share in the benefits of a system of international rivers, and have usually yielded this extreme position. Subsequent actions, and statements made by representatives of such countries, have brought the official position of their states in line with the recognition of a mutual right to share in the benefits of a common system and of a right to the protection of existing uses.[14]

Current and past controversies over the distribution of the waters of international rivers have elicited significant statements, often against interest, by Governments and their officials, which reflect a conviction that international law sanctions the right of each riparian to a just and reasonable share of the waters of international rivers and to the protection of existing uses.[15]

The few international arbitral awards which are available uphold the view that co-riparians are equally entitled to make use of the waters of international rivers.[16]

A long line of decisions in the United States Supreme Court has consistently rejected the argument that upper riparian states, in their capacity as sovereign members of the Union and thus, they have contended, in a position to invoke international law, are entitled to make fullest use of the waters without recognizing the corresponding rights of co-riparians.[17] Federal and municipal courts in other countries similarly have ruled in favor of the principle that co-riparians are entitled to share on a just and reasonable basis in the benefits of international rivers.[18] The legitimate use of the analogy of federal and municipal decisions as an aid in the search for evidence of customary international law does not seem to be open to question among prominent internationalists, and the denial of its relevance is rare.[19]

The report of the Indus Commission, headed by the late Sir Benegal N. Rau, accords with the above decisions.[20]

No case, either domestic or international, has been found which sanctions originally superior rights of any riparian vis-à-vis his co-riparians to make use of the waters of international rivers.

An abundant literature exists which supports overwhelmingly the doctrine of mutuality of rights and duties among co-riparians, and denies originally superior rights to any one state, in the use of the waters of international rivers.[21]

Where competition makes the fulfillment of all desired uses impossible of achievement, the standards of justice and reasonableness, both familiar concepts to lawyers even if incapable of precise definition in the abstract, are essential to the protection of the mutual rights of co-riparians. Justice and reasonableness do not mean, of course, absolute equality in the quantitative sense. It is most improbable that any two river systems are entirely alike, and it would be futile to strive for a particularized exposition of rules on the question of proper allocation of water supplies. Nevertheless, it would be patently in derogation of the equal rights of co-riparians to make the fullest possible use of the part of a system of international waters under its jurisdiction, to sanction a criterion of distribution which would be less than just and reasonable under the admittedly varying circumstances.

In formulating standards, the Committee has followed generally the Dubrovnik statement of factors, but has recognized that some stand on a different footing from the others. There is abundant authority for specific reference to treaties, judgments, and awards as matters of first consideration in deter-

mining what is just and reasonable. The same is true as regard the rights arising from existing uses.[22] To avoid undue rigid ity, however, the draft says merely that rights so arising mus be taken into account. The other factors, taken from Dubrovni principle V, are illustrative of the further considerations whic in appropriate cases are to be taken into account by negotiator and tribunals in arriving at a just and reasonable solution.

III

A riparian is under a duty to refrain from causing a change in the existing regime of a system of interna tional waters which could interfere with the exercise by a co-riparian of its right to share on a just and reason able basis in the benefits of the system without first giv ing the co-riparian an opportunity to object; and if ob jection is made, to refrain from causing the change s long as the co-riparian demonstrates its willingness t reach a prompt and just solution by the pacific mean envisaged in the Charter of the United Nations, includin a determination by the International Court of Justice o other agreed tribunal.

This principle is a development from Dubrovnik Princip VI. Underlying both is the recognition that the most sati factory method of bringing about the sharing of the benefi on a just and reasonable basis is by agreement.

Some statements and treaties on this subject have made agre ment or consent by the affected riparians a *sine qua non* to a material change in the existing regime. Examples can b found in Articles I and II of the Madrid Declaration of 191 in Articles 4 and 5 of the Geneva Convention of 1923, and i Articles 2 and 4 of the Montevideo Declaration of 1933. Bu what if consent is unreasonably withheld? Dubrovnik Princip VI and Buenos Aires Principle 3 seek to avoid an impasse b stating that the differences should be submitted to arbitratio But what if either the riparian proposing the change, or othe riparians who believe they would be adversely affected, refus to arbitrate? If the former is willing to arbitrate and th others are not, may they in effect impose unilaterally thei interested views of their substantive rights? It is not believe that it was the intention of the authors of the above statement to permit such a result, or that, if it was, such a view is main

tainable as a matter of law. By the same token it is believed that the riparian proposing the change may not in effect impose its unilateral views as to the substantive rights of the parties by proceeding without arbitration over the objection of affected riparians that have demonstrated their willingness to arbitrate.

The principle as revised encourages agreement on a just and reasonable basis by acknowledging that the change may be made if the objectors are not willing to arbitrate, but may not be made except as determined by a disinterested tribunal in cases where the objectors are willing to accept its decisions.

When the Madrid Rules, the Geneva Convention and the Declaration of Montevideo were formulated, it may have been reasonable to conclude that consent to a change having adverse effects was in all cases necessary. Certainly by treaty a number of states had bound themselves to make no changes without the consent of the co-signatories. Those treaties indicate an appreciation of the dangers inherent in any unilateral determination that a change would have no international effects or if it did that the change would not bring about an unjust or unreasonable distribution of the benefits. The treaties suggest that the possibilities of harm from a change so outweighed the possible loss of new benefits as to lead the parties to prefer to risk the consequences of a stalemate.

But with expanding populations, increasing demands for better standards of living and the opportunities opened up by engineering advances, will nations eager to improve a system of rivers be content to let neighbors that are indifferent to progress cite so rigid a rule of law? Can so rigid a rule be squared with the Charter of the United Nations?

It may be that before adoption of the Charter of the United Nations, one could not say that there existed a duty to break stalemates through peaceful procedures. One of the objectives of the United Nations was to provide peaceful means for resolving conflicts to assure that all members "shall settle their international disputes by peaceful means in such a manner that international peace and security, and justice, are not endangered." (Article 2, Paragraph 3.)

We doubt that the International Court of Justice would today sustain a right of arbitrary veto of changes in a river regime by an affected riparian. We believe, however, that it would not uphold changes adversely affecting others by a riparian that was itself unwilling to join with them in having the respective substantive rights of the parties settled by an impartial tribunal.

The principle as revised from Dubrovnik Principle VI does not mention seeking advice of a technical commission. This is omitted with no thought of excluding such a step. Such advice, along with other procedures, is included in the reference to the peaceful procedures mentioned in the Charter. Furthermore, reference to a technical commission is expressly mentioned under Recommendation III.

Much of the material referred to in the text of the comment on the preceding principle is directly in support of the necessity for notification, negotiations, and agreement or inaction where an objecting co-riparian meets the conditions outlined in this principle.

International conferences, attended sometimes by official and sometimes by unofficial representatives of states interested in the uses of the waters of international rivers, have uniformly and expressly supported the duty of a riparian not to proceed unilaterally to the development of a part of a river basin where the co-riparians' interests might be endangered.[23]

The existence of a great number of agreements regulating the uses of a system of international waters, and the widespread custom of states not to act in disregard of conflicting claims by co-riparians, are weighty evidence of a requirement of law against unilateral appropriations.[24]

It is also noteworthy that as recently as August, 1957, the Argentine Government, according to a report in *La Prensa* of Buenos Aires of August 2, 1957, has informed the Bolivian Government of the studies it is undertaking for the exploitation of the Bermejo River, which is international and successive.

A typical example of conformance with the above principle is afforded by the recent decision of the Governments of France and Spain to submit to the decision of an arbitral tribunal their conflicting claims for the solution of a current water dispute. France is proposing to divert the flow of the waters of Lake Lanoux, which lies entirely in France in the Eastern Pyrenees, so as to prevent it from emptying into the Carol River, a tributary of the Segre which is a Spanish river emptying into the Ebro. The diversion would direct the waters toward the Ariège, a wholly French river.[25]

A further example of resort to arbitration and of support by the tribunal of the principle denying the right of a state to disregard the effect of its actions on the territory of another state is afforded by the Trail Smelter dispute between the United States and Canada. The case involved the question of Canada's right to permit the pollution of air crossing into the United States and presents a strong analogy to international water cases. Indeed, the Tribunal drew also on the analogy of cases decided by the United States Supreme Court and involving water disputes between states, to formulate a rule of international law.[26]

IV

A riparian's duty to refrain from taking action in violation of a co-riparian's rights includes the duty to prevent others, for whose acts it is responsible under international law, from taking such action.

Dubrovnik Principle IV undertakes to some extent itself to set out, as applied to international rivers, the law of state responsibility for actions of others. It states that a state is "responsible . . . for public or private acts to the injury of another state which it could have prevented by reasonable diligence." There may, however, be instances in which a state is responsible for certain acts whether or not it exercised reasonable diligence. It has seemed in any case preferable not to undertake in this statement to define the law of state responsibility, but rather to make clear that that law is incorporated into the present statement.

It is well recognized that action which a riparian itself is under a duty not to take may not be undertaken by those for whose acts, under international law, it is responsible.[27] The Trail Smelter Arbitral Tribunal held that Canada was liable to the United States, under international law, for the consequences of permitting private parties to conduct industrial operations harmful to parties across the national boundary.[28]

V

A riparian may not unreasonably withhold from a co-riparian, or refuse to give it access to, data relevant to the determination or observance of their respective rights and duties under the existing regime of the system of international waters, or data with respect to any proposed change in that regime.

This principle is not stated expressly in the resolution adopted at Dubrovnik in 1956. The Committee has felt, however, that it is preferable to state expressly one of the elements which makes meaningful the fundamental principle of corre-

sponding rights and duties of riparians, rather than to leave it to inference.

It should be noted that the language could hardly impose an obligation in any case where a riparian is neither itself doing anything to affect the natural flow of the international water system, or objecting to what co-riparians are or are not doing. It comes into play only in cases where a riparian is either itself engaging in acts which might affect enjoyment of the water system by its co-riparians or is objecting to acts by its co-riparians on the ground that its own enjoyment might be affected. The relevant data contemplated in this principle are, of course, hydrological data.

The complex physical facts which must be considered in apportioning the use of waters of international rivers make it haphazard and arbitrary to undertake to utilize such resources in ignorance or disregard of technical information. In some cases the technical data necessary to the effective utilization of the waters may be physically accessible only to one riparian. When the respective rights of co-riparians have been drawn in issue, refusal by one to provide or to consent to the procurement of pertinent data which are either reasonably needed or justifiably requested by co-riparians, could amount to an unlawful assumption of absolute and exclusive authority to judge as to the proper sharing of the waters of an international system of rivers.

It is not possible to particularize the exact circumstances under which co-riparians can be held to act in violation of international law if they withhold from a co-riparian, or refuse to give it access to, relevant data. This in no way detracts from the validity of a general principle which stems from lack of exclusive and unfettered dominion by any riparian over the waters of an international system.

In general, information which can be shown to be indispensable to the recognition of the extent of a riparian's rights, and to the ascertainment of a co-riparian's respect for those rights, may not be lawfully denied when riparians overtly intend to avail themselves of their rights, or when other riparians intend to alter the existing regime of a system beyond the *de minimis* point.

The furnishing of or the access to pertinent information may take whatever form is suitable to the parties involved. To meet the test of reasonableness, of course, any required disclosure must be consistent with a riparian's vital interest in the preservation of its right of privacy in matters extraneous to water questions, such as the general topography of its

territory, its defense installations, etc. Access to data may be given through the medium of mutually agreed competent third parties, public or private. It is the data that are due and not any detailed manner of collecting them.

This principle imposes no novel duty on states. Many analogous instances can be found in international law in which the protection of a basic and recognized right has generated subsidiary duties necessary to the enjoyment of the primary benefit conferred by the law.

A few examples in which international law recognizes the right of one state to use in part another state's territory or to demand conformance with certain primary international duties or account for defaults, may be cited. In all these instances, just as where the uses of the waters of a system are involved, the greater right has been held to include the lesser because essential to the life and meaning of the former.

By customary international law every state has the right to demand that in time of peace its merchantmen may pass through the territorial maritime belt of every other state. Without this right it would be impossible to give the fullest meaning to the principle of freedom of the open sea. This impossibility is sufficient justification, in the eyes of States, for the right of innocent passage.[29] Similarly, unconditional and indiscriminate withholding of data by a riparian could result in denying a co-riparian enjoyment of the full measure of its rights in the waters of the international system.

Aliens, though under the territorial supremacy of the state they enter, remain nevertheless under the protection of their home states. If a state decides to exercise its right of protection of its citizens abroad, refusal by another state even to supply information as to suspected breaches of international law or to negotiate in good faith might well provide the occasion for intervention by right on the part of the home state.[30]

The paramount interest of all nations in the supression of piracy has generated the so-called right of verification of flag as a necessary means for the effective outlawry of piracy. In order to maintain the safety of the open sea, men-of-war of all nations have the right to require suspicious private vessels on the open sea to show their flag. A vessel, furthermore, may be stopped and visited for the purpose of inspecting her papers and thereby verifying the flags. Conscious of the urgency of similar procedures in truly suspicious cases, states have not objected to what may often amount to considerable interference with their recognized right of navigation on the open seas.[31]

If it can be scientifically demonstrated that a proper assessment of a riparian's rights cannot be made in the absence of certain data in possession of a co-riparian, or if observance of a co-riparian's rights cannot be determined, adamant refusal on the part of any riparian to permit the collection of the needed information would run counter to international law.

An analysis of the manner of coping with the questions raised by the simultaneous uses of parts of a system of international waters by several co-riparians indicates that despite differences in the mechanics utilized, a principle of intercommunication has constantly been recognized.[32]

VI

A riparian is under a duty to refrain from increasing the level of pollution of a system of international waters to the substantial detriment of a co-riparian.

Principle VII of the resolution adopted at Dubrovnik states merely that "preventable" pollution of waters by one riparian, which causes substantial damage to another state, renders the former state "responsible" for the damage done. Principle VI of the present text emphasizes the duty to refrain from increasing the level of pollution. It approaches the problem from the point of view of what duties rest on riparians, rather than what their responsibility is once an activity has been initiated which has serious polluting effects, because it has seemed preferable to lay the stress on the proper standard of conduct which riparians must respect before injury is caused, rather than on responsibility after it has happened.

No attempt has been made to define what would constitute pollution. It surely would include unhealthful waste, and physical and chemical changes harmful to the usefulness of the waters or to its wildlife. While water may be used as a convenient medium for the disposal of wastes, such a use is not regarded as entitled to the same status, internationally, as other beneficial uses. Disposal of waste matter can generally be effected by alternative means, but sometimes such a change may be extremely, even prohibitively, expensive. Substitutes for water, on the contrary, are unavailable in most circumstances, and the detriment caused by the polluting may render the water largely unusable, sometimes perhaps wholly so, at least without very great expenditure for its purification.

On the basis of such authorities as there are, a case can be made for a more drastic limitation such as was suggested at Dubrovnik; ideally, any substantially injurious pollution should be abated forthwith. In view of the pervasiveness of some degree of pollution, however, and the inadequacy of available guidelines for determining the limits of tolerance, it seems unsafe to go at this time beyond a prohibition of harmful increase in the level of pollution.

The cases that have been found in which the question has been considered have held that proposed increases which would cause substantial detriment to neighboring states are unlawful and can be enjoined.[33] In a number of treaties the parties undertake to adopt measures aimed at cleansing the waters of an international system.[34] The Federal legislation of some countries, concerned with interstate and international problems, seems also to uphold principle VI.[35]

COMMENTS ON RECOMMENDATIONS

I

It is recommended that pollution by a riparian, even though not unlawful, which causes detriment to a co-riparian should be gradually rendered substantially harmless.

This paragraph recommends that states cooperate to control water pollution even where long established practices have resulted in such a high degree of dependence that their immediate removal would create immense difficulty. It is not the purpose to affirm or deny the binding nature of Paragraph VII, as a matter of international law; few precedents, if any, are directly in point on this question. In view of the uniqueness of water resources, however, and of the fact that serious pollution may render the waters virtually useless, the abatement of such polluting uses seems highly desirable.

II

It is recommended that so far as possible co-riparians join with each other in making the fullest possible utilization of the waters of their system, taking into account the system as an integrated whole and the widest variety of uses of the waters, to assure the greatest benefit to all.

III

It is recommended that co-riparians establish commissions to collect and exchange technical data, to make studies for the better utilization of the waters of their system and to anticipate and resolve conflicts over the uses of the waters of the system and the fair distribution of the cost of proper maintenance, operation and development.

These recommendations complement each other and give expression to a conclusion reached by experts who have studied carefully the problems of river basin development.[36] The conclusion is that only through the medium of close international cooperation is it possible for states to derive maximum benefits from the waters of an international system of rivers.

Paragraph II above reproduces Principle VIII of the Dubrovnik resolution with only minor changes in the language. Paragraph III, which is suggested in Principle VI of the Dubrovnik resolution, recommends the establishment of mixed commissions as the best method of implementing the recommendations of Paragraph II. Joint studies and preparation of comprehensive plans of development generally give the best assurances that the available resources will yield maximum benefits to the communities interested in the waters of an international system.

The desirability of joint development of international river basins as integrated wholes is, we believe, beyond question.[37] Happily, several current and past examples can be offered in which nations have adopted a policy of cooperation in order to foster the development of their common water resources on an integrated basis.[38]

The salient feature of an international river system is the community of interests to which it gives rise and in which several states participate at once. It has therefore been argued not unreasonably that the community principle, implemented by an appropriate international agency possessing some degree of international personality (on the analogy of such agencies as the Coal and Steel Community in Europe), is the goal toward which international policy is moving.[39]

International commissions, by bringing together experts of different nationalities to work on a cooperative basis, would also go far toward creating a setting of mutual trust essential to progress. Greater efficiency would result from a cooperative effort and the exchange of basic technical data. Conflicts of interests, frequently the cause of delays, could, no doubt, be dealt with and settled more speedily.[40]

IV

It is recommended that the United Nations should establish an office to serve as a central clearing house of information concerning systems of international waters and should provide assistance to a riparian which seeks to reach a peaceful resolution of differences with co-riparians and technical or other experts when so requested by a riparian.

The Dubrovnik resolution does not contain a recommendation seeking to encourage the establishment through the United Nations of machinery, world-wide in scope, which states may use to help achieve maximum benefits from available water resources and as an aid in settling international disputes. The Commitee feels that an office of the United Nations would be particularly suited to the discharge of conciliatory functions and to the task of collecting and divulging information concerning technological aspects of river basin development.

The urgency of some device for the furtherance of international river basin development cannot be overestimated in view of the fast pace at which the world population is increasing, and the fact that enormous quantities of utilizable water waste daily into the sea and that this waste results mainly from two factors: the lack of adequate scientific knowledge or of trained personnel in many parts of the world, and the inability on the part of riparians to come to terms with one another on the problem of proper distribution of available water supplies.[41]

The U.N. Panel of Experts on Integrated River Basin Development has very recently recommended the establishment of a special office or unit in the Secretariat of the United Nations, with duties and functions similar to those outlined in the recommendation above.[42] The workability of impartial technical assistance for the promotion of international cooperation in the development of international river basins is being demonstrated by the current work of the United Nations Survey Mission for the Lower Mekong Basin, which was invited to offer its services by a joint request of the Governments of Cambodia, Laos, Thailand and Vietnam.[43]

Agents or technical missions of international organizations participating, at the request of such organizations or of a co-riparian, in the planning or carrying out of a project which would change the existing regime of a system of international waters should, in their recommendations to the government concerned, be guided by the obligations devolving on that government under the applicable principles of international law.

FOOTNOTES

1. Throughout the long history of diplomatic negotiations about the Nile, it has been taken as a matter of course that restrictions upon the use of the river by the upper riparian would be (to quote the Egyptian note of May 7, 1929, accepted by Great Britain) applicable to works "on the River Nile and its branches, or on the lakes from which it flows," so far as these were under British control (Smith, at 214). 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" (*Id.* at 166); in 1902 Great Britain obtained agreement by Ethiopia 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.

The treaty of 1905 between Sweden and Norway regulated "all lakes and watercourses common to the two States," which formed a boundary "or which flow in the territories of the two States or which are diverted into said lakes and watercourses." (*Id.* at 167; translation ours.) A treaty between France and Italy in 1914 concerning use of the waters of the Roya River was specifically made applicable to its tributaries (*Id.* at 179). Lakes were dealt with in four treaties of 1920 between Russia and Estonia, Lithuania, Latvia and Finland, respectively (Id. at 188; see also ECE Report, at 124). Actions affecting the levels of frontier rivers or lakes were forbidden by the peace treaty of 1921 between Poland, Russia and the Ukraine (Smith, at 192). Tributaries of frontier watercourses were included in a treaty of 1922 between Denmark and Germany (ECE Report, at 128). Maintenance of the level of the Lake of the Woods was the subject of a treaty entered into by the United States and Canada in 1925 (Smith, at 201). The water provisions of the frontier treaty of 1925 between Germany and France were made applicable to watercourses which "discharge into a frontier watercourse." (*Id.* at 205.) A German-Polish treaty of 1926 extended the regulation of frontier waters "to tributary waters within a frontier district of four kilometers in depth." (*Id.* at 206.) Hirsch (*Utilization of International Rivers in the Middle East*, 50 AM. J. INT'L L. 81 [1956]) cites a Franco-British Convention of 1920 dealing with "the waters of the Upper Jordan and the Yarmuk and of their tributaries" (*Id.* at 88), but concludes (*Id.* at 100) that in the Middle East "no consistent rule is followed with respect to tributaries."

The treaty of 1944 between the United States and Mexico specifically allotted between the two countries the waters of various tributaries of the Rio Grande, and guaranteed to Mexico deliveries from the Colorado which necessarily took account of supplies from tributaries wholly within the United States. (59 STAT. 1219 [1945].)

Often treaties recite broadly that action by a state which might have adverse affect on the uses of waters by other riparians is subject to prior agreement between the parties. It would be surprising indeed to infer that each party was aiming at protecting itself against action on one branch of a system only.

The numerous treaties regulating the uses of a system of international waters in South America concern, often, tributaries. See, for example, the 1926 treaty between Argentina and Paraguay concerning the exploitation of the Paraná, a tripartite treaty signed by Argentina, Bolivia and Paraguay in 1941 concerning the utilization of the waters of the Pilcomayo, and the treaty between Argentina and Paraguay signed in 1946 concerning the utilization of certain rapids of the Uruguay River. (See citations in note 7 *infra*.)

In the 1957 treaty between Guatemala and El Salvador, concerning the utilization of the waters of the Güija lake, which lies between the two countries, Article V provides that streams and other sources which lie wholly within each country but which contribute in any way to the waters of the lake must be managed so as to prevent available supplies of the lake from being substantially affected.

2. The unity of a system of international waters was declared by the Permanent Court of International Justice in its decision No. 16 of September 16, 1929, relating to the territorial jurisdiction of the International Commission of the Oder River, established by the Treaty of Versailles. The

contention by Poland that the phrase "international river" did not include the Warthe and the Netza, both tributaries of the Oder, flowing in Polish territory, was rejected. The Court held that the expression "international river" refers to the system as a whole, including wholly national tributaries.

In dealing with either diversion or pollution of the waters of interstate rivers, the United States Supreme Court has made no distinction between acts done on the main river and acts done on a wholly intrastate tributary. See *e.g.*, Missouri v. Illinois, 180 U.S. 208 (1901), 200 U.S. 496 (1906); New Jersey v. New York, 283 U.S. 336 (1931), 347 U.S. 995 (1954); Nebraska v. Wyoming, 325 U.S. 589 (1945). Similarly, the Indus (Rau) Commission did not exclude from its consideration any water furnished by a tributary flowing entirely within a single province (see Appendix D *infra*). Indeed, the suggestion of so artificial a distinction seems not to have been put forward in any of these cases.

3. ECE Report, at 5-14.

4. It has been suggested to the American Committee that the meaning of the first sentence might be put more explicitly with the addition of the underscored language: "A riparian has the sovereign right to make the fullest use of the waters naturally flowing in the part of a system of international waters under its jurisdiction consistent with the corresponding right of each co-riparian." The Committee thinks the sentence as drafted has the same meaning as is intended by this rephrasing.

5. The Committee nevertheless recognized the convenience of a negative statement as a means of focusing attention on the most pervasive issue involved. A negative statement was found a convenient method of discovering the views of the members of the International Committee at the meeting in Geneva in October, 1957, when the views of the individual members were sought with regard to the following minimum statement:

> Authority over a part of the waters of an international water system does not by itself give to the state having such authority a right to do as it chooses with these waters in cases where its actions 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. (Professor Eagleton's Summary Digest of Discussion at Geneva Meeting of October 14-16, 1957, of the Committee on International Rivers of the I.L.A.)

The response to this statement showed near unanimity in rejecting unfettered rights based on sovereignty. A negative statement has also the advantage of testing theoretically the argument of those who for doctrinal reasons still cling to the view that sovereignty, of itself, carries with it the right to do within one's own territory as one chooses without regard to the consequences to other sovereign nations. We will not belabor the text with these old doctrinal pitfalls. They have been dealt with and adequately disposed of in at least two comprehensive studies of international river law. Insofar as these doctrinal views won currency in the United States in the past through an 1895 opinion of Attorney General Harmon, they are discussed in Appendix B and C *infra*. The two studies referred to above are: Andrassy, *Les Relations Internationales de Voisinage*, in 79 RECUEIL DES COURS (Hague Academy, 1951); ECE Report.

The principle of mutuality of rights and duties of co-riparians need not be viewed as a limitation of sovereignty. It is rather a recognition of the sovereign rights of every riparian over its territory and its appurtenances. The ECE Report, after a most comprehensive review of authorities, concludes in part:

> We have found that when a waterway crosses two or more territories in succession, each of the States concerned possesses rights of sovereignty and ownership over the section flowing through its territory. None of the theories elaborated to limit the sovereignty of a State can well withstand critical analysis. Such sovereignty exists and it is absolute. Each riparian State has a right of ownership over the section of the waterway which traverses it, and this right restricts the freedom of action of the others. Nevertheless, the fact that each State is obliged to respect the right of ownership of the other States in no way impairs its sovereign power. On the contrary this power resolves itself into the consent which the State may give for the execution of the works, and finds expression in the agreement. (ECE Report at 209.)

If, indeed, the "absolute" sovereignty which this author asserts imported an unlimited right of the sovereign to act within its own territory, the necessary consequence would be to authorize the projection of its sovereignty beyond its borders. The indiscriminate appropriation of such waters by any one riparian is not without effect outside its jurisdiction. The effect is not limited to the availability of river flow. One need only think of the consequences following the increase

in salinity of the lands lying downstream, or the substantial alteration of the moisture content of the earths surrounding an international river because of the loss of the benefits of seepage and greater evaporation, if the volume of flowing waters could be reduced without legal restraints. Conversely, the absolute power which a lower riparian may sometimes possess to reject temporarily or divert the flow of an international river into other channels if it should coincide with a right to do so, would permit one riparian to submerge stretches of productive and possibly inhabited lands lying within another jurisdiction. If an upper riparian can lawfully claim an absolute property right in the waters present in its territory, a lower riparian should correspondingly be entitled to reject, if it chooses, what the former state saw fit to discard. These propositions are, of course, not only untenable in reason, but thoroughly unknown to the practice and convictions of states.

6. Almost fifty years ago, the Institut de Droit International at its Madrid meeting in 1911, asserted that the dependence of riparian states upon each other "excludes the idea of complete autonomy for either along that portion of the natural course coming under its sovereignty."

Twenty-four nations from all continents signed a Convention at Geneva in 1923, of which the Commission headed by Sir Benegal Rau (later a judge of the International Court of Justice) in the process of analyzing the pertinent principles of international law said:

> 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 States through which they flow irrespective of political frontiers. (I REPORT OF THE INDUS (RAU) COMMISSION 22 (1942). Reprinted by the Superintendent, Government Printing, Lahore (Punjab), 1950.)

See Appendix A for the ratifications given so far to this Convention.

Several reports presented at the Seventh Inter-American Conference held at Montevideo in 1933 show an unmistakable concurrence in one principle which was stated as follows in what became known as the Declaration of Montevideo:

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

The Urguayan delegate to the Inter-American Conference was reported as having stated during the discussions that the principles eventually adopted at Montevideo "are held to be legal practice, and that they have already been observed by Brazil whose inland water network spans most of South America, as well as Argentina and his own country Uruguay." (Tr. ours.) VOLPI, UTILIZACIÓN DE RÍOS INTERNACIONALES PARA LA PRODUCCIÓN DE ENERGÍA HIDROELÉCTRICA Y OTROS FINES INDUSTRIALES O AGRÍCOLAS 18 (Consejo Interamericano de Comercio y Producción, Montevideo, 1946).

Recently the Inter-American Bar Association at its Conference in Buenos Aires in November, 1957, adopted a unanimous resolution in which the following, *inter alia*, is stated to be existing international law:

> 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.

See Appendix A for a summary and citations of the work of the above and additional international bodies in the field of international river law.

7. Fifty-one treaties and other international agreements from 1785 down to 1930 are summarized or abstracted in Smith, at 159-217. Each of these agreements recognizes that

riparians have mutual rights and duties. 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 25-152) summarizes some of the treaties listed by Smith and adds about forty 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. 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). To the treaties analyzed in these works one should add the treaties signed in 1955 by Yugoslavia with Romania and Hungary, in which the parties obligate themselves to settle by agreement all questions of water economics of common interest, and to exchange data; mixed commissions are also established to administer the treaty. The 1954 treaties between Austria and Yugoslavia concerning the Mura and Drava rivers are also based on the principle of mutuality of rights and duties. These treaties are discussed in Paunovic, *The Uses of the Waters of International Rivers* in PRINCIPLES OF LAW GOVERNING THE USES OF INTERNATIONAL RIVERS, Lib. of Cong. Cat. Card No. 57-10830.

A recent study of the legal status of international rivers in Latin America has revealed a state of complete accord with the principle of corresponding rights of riparians and of entitlement of each to a just and reasonable share of the waters of international rivers. The following summarizes the contents of treaties among Latin American states:

(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 "adoption of measures taken by common agreement for the utilization and development of the waters of the said river and to attempt to make it navigable . . . as well as to frame rules regarding fishing, irrigation, and industrial uses of its waters." (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.* note 6, *supra*, at 40.)

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 STATE BULL. 642-43 (1945). REVISTA ARGENTINA DE DERECHO INTERNACIONAL, Tomo IX, No. 1, at 31-39 [1946].)

(d) *Argentina-Uruguay.* In 1946 Argentina and Uruguay entered into a treaty in which the two states "declare that the waters of the Uruguay river will be utilized in common, in equal parts." (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 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, *Id.* at 64.

(e) *Dominican Republic-Haiti.* The 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. (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. (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 Dept. 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 Dept. of State of the United States.)

One treaty which, if literally construed, would reserve to each signatory absolute freedom to make industrial or agricultural uses of the waters of an international river, if such uses do not interfere with navigation, is the 1954 treaty between Cambodia, Laos and Vietnam, concerning the waters of the Mekong. The signatory states and Thailand have recently requested the assistance of the United Nations for the development of their common river on an integrated basis, and have established a mixed commission to further common planning and exploitation of the waters; see DEVELOPMENT OF WATER RESOURCES IN THE LOWER MEKONG BASIN, U.N. Document C/E/CM. 11/457-ST/ECAFE/SER.F/112 Flood Control Series No. 12 (1958).

In addition to the water treaties listed and discussed in the collections referred to above and in this note, there exist hundreds more which are being collected and studied by Dr. A. M. Hirsch, a member of the American Committee of the I.L.A. as consultant to the Institute of International Law of the New York University School of Law. It is expected that the results of this study will eventually appear in print.

8. 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].)

According to Fauchille:

> Lorsque plusieurs traités, conclus à différentes époques ou à une même époque, entre des Etats civilisés, reproduisent d'identiques stipulations le principe que révèlent ces stipulations conformes a la valeur d'une règle juridique . . .. Mais il faut se garder d'errer sur le caractère d'une semblable règle. Elle n'est pas conventionelle; elle est coûtumière. (I FAUCHILLE, TRAITÉ DE DROIT INTERNATIONAL PUBLIC 45-46 [No. 52].)

See similarly I SIBERT, TRAITÉ DE DROIT INTERNATIONAL PUBLIC 34 (No. 35) (1951).

Rousseau says:

> Certains traités particuliers (traités d'arbitrage, conventions consulaires, traités d'extradition, traités relatifs aux canaux internationaux) peuvent contribuer à l'élaboration du droit coûtumier lorsqu'ils sont conclus entre un grand nombre d'Etats, et qu'ils contiennent des stipulations identiques (clauses-type) reflétant une conviction juridique commune. (ROUSSEAU, DROIT INTERNATIONAL PUBLIC 67 [1953].)

According to Hyde:

> Doubtless treaties may afford evidence of international law. They do so when they give expression to rules of conduct in which States generally acquiesce, embracing those which have not formally adhered to the particular contractual arrangement. (I HYDE, INTERNATIONAL LAW CHIEFLY AS INTERPRETED AND APPLIED BY THE UNITED STATES 12 [1945].)

Concerning the relevance of treaty provisions to the determination of international river law in particular, Judge Basdevant of the International Court of Justice has very recently written that customary international river law can be determined scientifically only by considering the concrete solutions adopted by the states in their water treaties. He further remarks:

> Le juriste ne doit pas s'attendre à y voir consacrer des principes abstraits [in the treaties] mais les solutions concrètes qu'il y rencontre devront rester présentes à son esprit quand il cherchera, comme c'est sa tâche, à mettre en ordre logique et systematizer les données du droit existant et ainsi, par un effort d'esprit, à dégager de celles-ci les principes qu'elles impliquent. (Basdevant, *Contribution à l'Etude du Régime Juridique de l'Utilisation Domestique, Agricole et Industrielle des Eaux* 9, 11, in RECUEIL EN L'HONNEUR DE M. MESTRES: L'EVOLUTION DU DROIT PUBLIC [1956].)

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 [1923]), 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 doubting the validity of *opinio juris* are: Guggenheim, *Les Deux Eléments de la Coûtume en Droit International*, in I ETUDES EN L'HONNEUR DE GEORGES SCELLE 275-284 (1950); Lambert, *Introduction, Le Régime Successoral* (Première Série, Etudes de Droit Commun Legislatif ou de Droit Civil Comparé), appearing in I LA FONCTION DU DROIT CIVIL COMPARÉ 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.

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.)

The treaty of 1905 between Sweden and Norway provides in Article 2 as follows:

> *In accordance with the general principles of international law* it is understood that the works mentioned in Article 1 cannot be carried out in one of the two States without the consent of the other, whenever these works, in influencing the waters situated in the other State would have the effect either of sensibly impeding the use of a watercourse for navigation or floating, or otherwise bringing about serious changes in the water of a region of considerable extent. (Smith at 167; Trans. ours; italics supplied.)

In the agreement of 1929 for the allocation of the waters of the Nile, Great Britain, as representative of the Sudan, yielded water supplies in recognition of a dictate of international law. During the negotiations, Sir Austen Chamberlain, as Foreign Minister of the United Kingdom, sent a draft of note to the British High Commissioner in Egypt, dated 9th November 1927, in which he confirmed the basic principle recognized as governing the riparians of international rivers. His draft reads, in part, 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. (Paper regarding negotiations for a treaty of alliance with Egypt, Egypt No. 1 Cmd. No. 3050 at 31 [1928].)

Since becoming independent, the Sudan has spoken of "established Egyptian rights which the Sudan is prepared to acknowledge." (THE NILE WATER QUESTION, Ministry of Irrigation & Hydro-Electric Power, Khartoum, December 1955, p. 37.) Further, the Sudan is now insisting on a present allocation of surplus supplies lest Egypt "continue to acquire established rights as she has in the past, and the Sudan would be loser." *Id.* at 6.

Protests about the use of the Rio Grande river began as early as 1880 (Smith, at 41), and the convention of 1906 between the 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.

9. More than twenty water compacts were in force in 1954 in the United States, and eight more were being negotiated. Dexheimer, *International Water Problems and Progress Made through Treaties, Compacts and Agreements*, in WORLD POWER CONFERENCE, ANNALS OF SECTIONAL MEETING OF RIO DE JANEIRO (1954), Vol. IV at 229.

10. The Argentine constitution does not require the consent of the Federal Parliament for the conclusion of inter-provincial compacts. According to Prof. G. Cano, in a paper entitled *The Juridical Status of International (Non-Maritime) Waters in the Western Hemisphere*, in PRINCIPLES . . . RIVERS AND LAKES, the following inter-provincial agreements have been concluded: (a) that of the Colorado River in October, 1956, among the provinces of Mendoza, Neuquen, Rio Negro, La Pampa and Buenos Aires, which set up a permanent Interstate Commission to study and plan the distribution of the waters of said river; (b) that of the provinces of Catamarca, Chaco, Jujuy, La Rioja, Salta, Santiago and Tucumán on the 16th of October, 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, Rio Negro and Chubut and the Federal Government in September, 1957, which established the "Corporación Norpatagónica" to develop the Negro and Chubut Rivers; (d) that of the Bermejo River in November, 1956, which set up an Inter-Provincial Commission to plan development works for the same river, entered into by the provinces of Salta, Chaco, Córdoba, Formosa, Jujuy, Santiago, Santa Fé and Tucumán.

11. In 1955 India passed an "Inter-state Water Dispute Bill" (MULTI-PURPOSE RIVER BASIN DEVELOPMENT. Part 2B, Water Resource Development in Burma, India and Pakistan 71, U.N. ECAFE, ST/ECAFE/SER. F/11 [Bangkok, 1956].) India's Damodar Valley Corporation was set up by a compact between the states of Bihar and Bengal, ratified by the Act of 18 February 1948 (EIGHT YEARS OF D.V.C. 7 [Calcutta, 1956]). Similarly, the Bhakra and Hiraku Projects are being con-

structed under inter-state agreements (PROCEEDINGS OF THE REGIONAL TECHNICAL CONFERENCE ON WATER RESOURCES IN ASIA AND THE FAR EAST 316, U.N. ECAFE, Flood Control Series No. 9 [Bangkok, 1956].)

12. The "River Murray Commission," the "Snowy Mountains Hydro-Electric Authority" and the "Dumaresg-Barwou Border River Commission" have been organized to plan and distribute uses of interstate rivers. (PROCEEDINGS, *op. cit.* note 11 *supra*, at 338).

13. A treaty signed in 1841 between the cantons of Zurich and Schwyz offers the earliest known precedent of interstate compacts (SCHULTHESS, DAS INTERNATIONALES WASSERRECHT 26, 41 [Zurich, 1916]). Water disputes between cantons are solved by means of agreements in Switzerland (NIESZ, WORLD POWER CONFERENCE, ANNALS OF SECTIONAL MEETING OF RIO DE JANEIRO (1954), Vol. IV at 319).

14. See Appendix B for a review of Governmental theories and practices of the United States, Chile, Austria and India.

15. See Appendix C for a review of pertinent declarations of Governments and officials, divided by continents.

16. In 1945 an arbitral award was rendered in a dispute between Ecuador and Peru by the Chancellery of Brazil (Aranha formula). Concerning the utilization of the waters of the Zarumilla River, the awards recites:

> Peru undertakes, within the time limit of three years, to divert a part of the Zarumilla River so that it may run in the old bed, so as to guarantee the necessary aid for the subsistence of the Ecuadorian populations located along its banks, thus ensuring Ecuador the co-dominion over the waters in accordance with international practice. (Trans. ours. Informe del Ministro de las Relaciones Exteriores a la Nación, 623 [Quito, Ecuador; 1946].)

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 the duty on Chile to permit Peru to carry out maintenance work in the canals and to appropriate the water thereof. (23 AM. J. INT'L L. 183 [SUPP. 1929].)

A strongly analogous case of pollution of the air crossing an international boundary can be cited, which based its decision

both on the rationale of interstate water pollution cases and on customary international law. The distinguished board in the Trail Smelter Arbitration held in 1941 that Canada's sovereignty did not extend to the point of permitting the operation of a smelter in her territory in such a manner that noxious substances would be blown into U.S. territory with consequent injury to private property. (35 AM. J. INT'L L. 684 [1941].)

A recent dispute between France and Spain over the right of France to divert the waters of a lake emptying into the tributary of a river common to the two countries was settled by resort to arbitration. The Arbitral Award, though dealing mainly with the application of treaties between France and Spain, draws also on principles of customary international law and finds that these principles sanction the co-riparians' equal entitlement to the use of waters of common rivers and to the protection of their respective interests. (Sentence du Tribunal Arbitral Franco-Espagnol en date du 16 Novembre 1957 dans l'Affaire de l'utilisation des eaux du Lac Lanoux, in XXIX Revue Général de Droit International Public 79-119 [1958].)

17. 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 Supreme Court. In the latter case Colorado reiterated its argument that under international law she was entitled to exercise absolute dominion over the waters in question. The Court answered on the merits as follows:

> 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, cannot 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 common 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), 347 U.S. 995 (1954); Hinderlider v. La Plata Co., 304 U.S. 92 (1938); Colorado v. Kansas, 320 U.S. 383 (1943); and Nebraska v. Wyoming, 325 U.S. 589 (1945).

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 the second decision in *Missouri* v. *Illinois*, Justice Holmes said for the Court (200 U.S. 496, 518 [1906]):

> The nuisance set forth in the bill was one which would be of international importance—a visible change of a great river from a pure stream into a polluted and poisoned ditch.

After posing the question (*Id.* at 519) "whether there is any principle of law and, if any, what, on which the plaintiff can recover," Justice Holmes remarked (*Id.* at 520-521):

> It may be imagined that a nuisance might be created by a State upon a navigable river like the Danube, which would amount to a *casus belli* for a State lower down, unless removed. If such a nuisance were created by a State upon the Mississippi, the controversy would be resolved by the more peaceful means of a suit in this court.

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 also 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.

18. The doctrine of absolute rights was rejected by the Swiss Federal Tribunal in Aargau v. Zurich (Smith, at 39, 104; see also Schindler in 15 AM. J. INT'L L. 149, 160, 170 [1921]). The court reasoned that the Cantons had equal rights and that no Canton had a right to exercise its sovereign rights in such a way as to affect the sovereign rights of other Cantons. In

the case of waters flowing in several Cantons, it followed from the equality of the Cantons that none of them was entitled to take such measures upon its territory as might cause prejudice to the others.

The German Staatsgerichtshof had occasion to express its views of international river law in Wuerttemberg and Prussia v. Baden (The Donauversinkung Case, June 18, 1927), ANNUAL DIGEST OF PUBLIC INTERNATIONAL LAW CASES (Lauterpacht) 128 (1927-28). The facts were as follows:

Between one point in Baden and another point in Wuerttemberg the Danube dries up during certain periods of the year. The reason for this is that the geological composition of the river bed is chalky and as a result large quantities of water sink through crevices and after passing through underground passages which run in a southerly direction, these same waters emerge as the head waters of the river Aach in Baden and pass along its short channel to Lake Constance.

This natural phenomenon gave rise to a legal controversy between Baden and Wuerttemberg. Wuerttemberg sought an injunction restraining Baden from constructing and maintaining dams and a water-power plant near Immendingen which intensified the sinking of the Danube by forcing the stream of water in the direction of the Aach. In addition, Wuerttemberg asked that Baden remove natural obstacles in the stream near Moehringen which impede the flow of water.

Baden, on the other hand, asked that Wuerttemberg be enjoined from constructing certain works near Fridingen which were calculated to prevent the natural flow of water to the Aach.

The court declared that it was bound to apply international law as between members of the German Federation in matters such as this where they acted as independent communities, and added:

> International law contains no express rules relating to a situation such as that with which the Court is confronted in the present case. A natural phenomenon of this kind takes place so seldom that no special rules of international law have evolved in this matter. Accordingly, one has to fall back upon the general principles of international law concerning the flow of international rivers as distinguished from boundary rivers. The exercise of sovereign rights by every State in regard to international rivers traversing its territory is limited by the duty not to injure the interest of other members of the international community. Due consideration must be given to one another by States through whose territories there flows an international river. No State may substantially impair the natural use of the flow of such a river by its neighbor. This principle has gained increased recognition in international relations, in particular in modern times when the increased exploitation of the natural power of flowing water has led to a contractual regulation of the interests of States connected by international rivers. The application of this principle is governed by the circumstances of each particular case. The interests of the States in question must be weighed in an equitable manner against one another. One must consider not only the absolute injury caused to the neighboring State, but also the relation of the advantage gained by one to the injury caused to the other.

The Italian Court of Cassation, in Société Energie Electrique du Littoral Méditerranéen v. Compagnia Imprese Elettriche Liguri (1939); ANNUAL DIGEST OF PUBLIC INTERNATIONAL LAW CASES (Lauterpacht) No. 47 (1938-1940), 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.

19. 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 Lauterpacht stated that there is no reason to believe that the inclusion in Article 38, Statute of the Permanent Court of International Justice, of "judicial decisions" as subsidiary means of determining rules of international law, was 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*, in 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 VOELKERRECHT 29 and 159 [1909].)

The Indus (Rau) Commission (REPORT OF THE INDUS (RAU) COMMISSION [1942], Vol. I. Reprinted by Superintendent, Government Printing, Lahore (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, 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." (BERBER, DIE RECHTSQUELLEN DES INTERNATIONALEN WASSERNUTZUNGSRECHT 125 [1955] 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 compulsory 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.

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].)

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* in 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* in 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.)

20. See Appendix D.

21. The ECE Report, in its review of some thirty authors (at 51-68) finds that only three or four have maintained that riparians do not stand on a basis of equality of rights. To these one should add SIMSARIAN, A STUDY OF THE LAW GOVERNING THE DIVISION OF INTERNATIONAL WATERS 106-111 (1939), though he admits an exception for boundary waters. One author, (FENWICK, INTERNATIONAL LAW 391 [3rd ed. 1948]) merely states that riparians have not been willing to relinquish their claims to the absolute control of waters within their territories, but that the uses of international rivers are governed by international agreements.

A review of the position of the dissident authors can be found in ANDRASSY, UTILISATION DES EAUX INTERNATIONALES NON MARITIMES (EN DEHORS DE LA NAVIGATION) 30-38 (Institut de Droit International, 1957). Prof. Andrassy disagrees and affirms the existence of corresponding rights and duties in international law.

A sampling of the views of some prominent authors will show concurrence in the basic thesis that co-riparians are equally entitled to make use of the waters within their jurisdiction and that no riparian can lawfully claim to have originally superior rights. 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).

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]).

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 the principle seems to be generally recognized which permits "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*, in 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 José de Yanguas Messia of Madrid has recently pointed out that assumption of unilateral control of the waters of an international river on the part of a riparian would result in the imposition of one riparian's laws on a co-riparian and a violation of sovereignty. He maintains that international law, apart from treaty, dictates the mutual respect for lawfully established and existing uses and entitles co-riparians to share on a just and reasonable basis in the benefits of a system of international waters. (de Yanguas Messia, *El Aprovechamiento*

Hidroeléctrico de los Ríos Internacionales en las Zonas Fronterizas Españolas, 1 REVISTA DE LA FACULTAD DE DERECHO DE LA UNIVERSIDAD DE MADRID 9 [1957].)

No dissent from the basic principle of corresponding rights and obligations among co-riparians has been found among Latin American scholars who have dealt with the subject. In 1932, the "Permanent Commission for the Codification of Public International Law" of Rio de Janeiro issued a report on the general principles which may facilitate agreements among riparians, concerning the industrial and agricultural uses of international rivers. In the report, the right of riparian states to the waters was said to be ". . . an exclusive right, although limited in its exercise by the requirement not to prejudice the equal right of a neighbor." (The report is reproduced in Volpi, *op. cit.* note 6 *supra* at 85. Trans. ours.) The report holds also that changes in the existing regime of international rivers must be undertaken with prior agreement with co-riparians. Support for this position was found in the opinions of "the most qualified internationalists." (Id. at 87.)

Other Latin American authors supporting the principle of corresponding rights and duties are: RUIZ MORENO, MANUAL DE DERECHO INTERNACIONAL PUBLICO 178 (1943), SOSA-RODRIGUEZ, LE DROIT FLUVIAL INTERNATIONAL ET LES FLEUVES DE L'AMERIQUE LATINE 51-53 (1935), DIAZ CISNEROS, 1 DERECHO INTERNATIONAL PUBLICO 539 (1955) and CANO, *The Juridical Status of International (Non-Maritime) Waters in the Western Hemisphere* in PRINCIPLES . . . RIVERS AND LAKES.

Professor Cardona of Mexico resorts to the theory of shared sovereignty over international river basins, among co-riparians. Apart from the controversial nature of a theory of shared sovereignty there is no mistaking the substance of the author's thinking when he says:

> The internationality of river basins pre-supposes a combination of rights and duties that are common to the neighboring states . . .. It follows that the legal order that governs this combination of rights and duties affects the exercise of the territorial sovereignty of each state . . ..
>
> The principle applicable to this order—and one which is amply recognized in international law—is that a state may exercise its rights of territorial sovereignty in the form and to the degree that it deems desirable but on condition that it does not impair the right of a neighboring state. (Cardona, *El Régimen Jurídico de los Ríos Internacionales*, 56 REVISTA DE DERECHO INTERNACIONAL 24, 26 [La Habana, No. 111, 1949].) (Trans. ours.)

The author's conclusion is that international river law imposes a "just distribution of the uses between the two parties," (Id. at 26, trans. ours), on the basis of present and future needs of riparian states.

22. See Appendix E for a review of the protection of existing uses in the practice of states.

23. The Institut de Droit International stated in what has become known as the Madrid Declaration of 1911 that the regime of rivers and lakes, contiguous or successive, could not be altered by one state to the detriment of a co-riparian, "without the consent of the other." Interference with utilization of waters by other riparians was banned outright.

The Geneva Convention of 1923 specifically provides in Article 4 that if a state desires to develop 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."

The Declaration of Montevideo of 1933 states in Article 2 that no state may, "without the consent of the other riparian state, introduce into watercourses of an international character, for industrial or agricultural exploitation of their waters, any alterations which may prove injurious to the margin of the other interested state." The same principle is made applicable to successive rivers in Article 4.

The Inter-American Bar Association at its Buenos Aires Conference in November 1957 adopted a statement of existing international law in which it is stated in Article 3 that riparians are under a duty to refrain from making changes which might affect adversely the uses of co-riparians, unless under an agreement or a decision of an international court or tribunal.

See Appendix A for the full text and citations of declarations of the above international bodies.

Conversely, no international tribunal, no international conference and no international association of publicists has ever, so far as is known, sanctioned the proposition that riparians are free to disregard the claims made by co-riparians.

24. Already in 1862 the Netherlands Government in referring to the uses of the Meuse, a river common to Holland and Belgium, stated that "following general principles of law, each is bound to abstain from any action which might cause damage

to the other." (Smith at 217.) And the treaty of 1905 between Sweden and Norway states in Article 2 that "in accordance with the general principles of international law, it is understood that the works mentioned in Article 1 cannot be carried out in one of the two States without the consent of the other" wherever serious damages in the regime of the waters situated in the other State would be caused thereby. (Id. at 167; trans. ours.)

The frequent resort by co-riparians to mixed technical commissions, charged with the task of administering the uses of systems of international waters, is an eloquent endorsement of the principle of condemnation of unilateral action as regards the disposal of common waters. See materials referred to in comments to preceding principle for widespread examples of requirements of agreement before making changes, and establishment of mixed technical commissions.

Many of those treaties which require prior agreement as a condition to the erection of new works express the requirement in terms of the possible or likely effect of the works—a wording which suggests that the parties appreciated the danger inherent in unilateral determination that works would have no international effect. See *e.g.*, the following treaties: France-Italy, 1914 (Smith, at 179); Finland-Russia, 1922 (*Id.* at 194); General Convention, Geneva, 1923 (*Id.* at 196); Hungary-Romania, 1924 (*Id.* at 200); Finland-Norway, 1925 (*Id.* at 201); Germany-France, 1925 (*Id.* at 205); Germany-France-Saar, 1926 (ECE Report at 137); Germany-Belgium, 1929 (*Id.* at 144); Romania-Yugoslavia, 1931 (*Id.* at 145); Brazil-United Kingdom, 1932 (*Id.* at 147); Brazil-Uruguay, 1933 (Id. at 147).

A number of treaties impose an initial requirement of notification of proposed new works, either with or without a subsequent requirement of agreement or consent. See, *e.g.*, the following treaties: Spain-France, 1856, 1866 (ECE Report, at 111); Switzerland-Baden, 1879 (*Id.* at 111); Romania-Yugoslavia, 1931 (*Id.* at 145); Belgium-Great Britain, 1934 (*Id.* at 148).

25. de Yanguas Messia, *El Aprovechamiento Hidroeléctrico de los Ríos Internacionales en las Zonas Fronterizas Españolas*, 1 REVISTA DE LA FACULTAD DE DERECHO DE LA UNIVERSIDAD DE MADRID 17 (1957).

26. 35 AM. J. INT'L L. 684 (1951). See Appendix F.

27. Treaties imposing limitations on the construction of new works are frequently couched in terms broad enough to cover works privately undertaken as well as works constructed by public authorities. See, *e.g.*, the following treaties: Sweden-Norway, 1905 (Smith, at 167); France-Italy, 1914 (*Id.* at 179); Hungary-Romania, 1924 (*Id.* at 200); Finland-Norway, 1925 (Id. at 201); Germany-France 1925, (*Id.* at 205); Germany-France-Saar, 1926 (ECE Report, at 137); Brazil-United Kingdom, 1940 (*Id.* at 149). The treaty of 1906 between the United States and Mexico (Smith, at 168) resulted in part from complaints by each nation that private citizens of the other had diverted water from the Rio Grande, and such claims on behalf of Mexico were expressly released by the treaty. With respect both to boundary waters and to rivers crossing the border, the treaty of 1909 between the United States and Britain (Smith, at 170) applies to private as well as to public action.

The "Madrid Declaration" of the Institut de Droit International (Appendix A) is made expressly applicable to private establishments.

In interstate water litigation the United States Supreme Court has treated action of private parties (in some cases, action taken with state consent) as being on a parity with public action. Kansas v. Colorado, 185 U.S. 125, 145-146 (1902); Wyoming v. Colorado, 286 U.S. 494, 508-510 (1932); Washington v. Oregon, 297 U.S. 517 (1936).

28. See Appendix F.

29. See 1 OPPENHEIM, INTERNATIONAL LAW 493 (8th ed. Lauterpacht, 1955), and citations therein.

30. *Id.* at 309 and 686 *et seq.*, and citations.

31. *Id.* at 604 *et seq.*, and citations.

32. In the numerous treaties in which consent of a co-riparian is required before new works may be built and new uses of the waters of the system be initiated, it goes without saying that no consent can be reasonably given or expected if a duty to satisfy the parties as to the accuracy of the relevant data were not implicitly sanctioned at the same time. Likewise, in treaties where prior notification of co-riparians is required, the only meaningful purpose can be the concomitant duty to enable co-riparians to assess the impact of the proposed changes on their rights through the presentation and analysis of pertinent data. A great number of treaties provide for the creation of mixed or joint commissions charged with the task

of administering the uses of the waters of an international system. It would be senseless to expect a joint commission to perform its duties without full and mutual disclosure of pertinent data. The treaties embracing one or another of the techniques outlined above show the concurrence of many nations in the conviction that a minimum right to the disclosure of and access to pertinent data is dictated by existing international law. See the treaties cited and discussed in footnotes and appendices to comments on principles II and III.

Some treaties expressly provide for a right of inspection of the waters of co-riparians (*e.g.*, Prussia and the Netherlands, 1816 Article XXIX [Smith at 160]; Germany and Lithuania, 1928 Article 18 [Smith at 212]). Certain other treaties require that co-riparians exchange statistical information concerning the uses of the waters of the international system, as well as information concerning contemplated uses (France-Switzerland, 1913 Articles 5 and 6 [Smith at 179]; France-Italy, 1914 Article IV [Smith at 179]; Austria-Yugoslavia, 1954 [Paunovic, *supra* Note 7]).

The Declaration of Montevideo states in Article 1 that where

> . . . 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.

This broad statement is indicative of the recognized necessity of technical information for the exercise of riparians' rights of user of their water resources. Following the spirit of the Declaration of Montevideo a great number of Latin American states have provided for mixed technical commissions to proceed to the concerted exploitation of waters of international concern (*e.g.*, Argentina-Bolivia-Paraguay, 1941 [REVISTA ARGENTINA DE DERECHO INTERNACIONAL 2a Serie, Tomo IV, No. 2, at 146-147]; Argentina-Paraguay, 1945 [DEP'T. STATE BULL. 642-643 (Oct. 21, 1945)]; Argentina-Uruguay, 1946 [PAN AMERICA 61 (B.A. 1947)]; Bolivia-Peru, 1955 [REVISTA DE DERECHO 93 (Lima, June 1955, Issue No. 23)]; Guatemala-El Salvador, 1957 [Copy supplied by Dept. of State]).

33. On the basis of cases involving water pollution, the Trail Smelter Arbitral Tribunal held that pollution of the air causing substantial injury to another nation was a violation of international law. The decision is reported in 35 AM. J. INT'L L. 684 (1941) and digested in Appendix F, p. 107.

It has been held by the United States Supreme Court that pollution of interstate waters is enjoinable at suit of the injured state. Missouri v. Illinois, 180 U.S. 208 (1901), 200 U.S. 496 (1906); New York v. New Jersey, 256 U.S. 296 (1921). It is true that in both cases cited the court found that the injury was not proved to be substantial enough, but there is no doubt that the complainants were held to have actionable claims. The court granted injunctive relief in analogous cases involving proven substantial pollution of the air and pollution of the sea. Georgia v. Tennessee Copper Co., 206 U.S. 230 (1907), 237 U.S. 474 (1915); New Jersey v. New York City, 283 U.S. 473 (1931).

34. See, for example, U.S.-Great Britain, 1909; Germany-France, 1925; Guatemala-El Salvador, 1957. The Madrid Declaration of the Institut de Droit International (1911) forbids outright "all alterations injurious to the water." The general language of many other treaties and declarations of international bodies is broad enough to include a prohibition against the increase in the level of pollution to the substantial detriment of co-riparians.

Numerous compacts have been entered into among several states in the United States for the specific purpose of controlling the level of pollution. See, for example, compacts relating to the Potomac (54 STAT. 748 [1940]) and the Ohio (54 STAT. 752 [1940]) Rivers, and to the rivers of New England (61 STAT. 682 [1947]).

35. The Water Pollution Control Act of the United States (33 U.S.C. 466-466j) is expressly aimed at the encouragement of further compacts and the abatement of pollution which impairs the health and welfare of communities in states other than the state whose practices cause the pollution.

See also the Swiss Federal Law on the Protection of Waters Against Pollution, enacted on March 16, 1955, and the Executive Ordinance of December 28, 1956, establishing regulations for implementation of the law. (RECUEIL DES LOIS FÉDÉRALES, No. 55, at 1635 and 1641 [1956].)

Under this law authority is left in the cantons for the prevention of water pollution "under the supervision of the Federal Government." (Art. 61.) The conclusion of inter-cantonal agreements is encouraged for the adoption of common or co-

ordinated measures of protection and purification. (Art. 7[1].) Federal Courts are given power to resolve intercantonal disputes. (Art. 7[2].) For the protection against pollution of surface or underground waters which form the national boundary or cross the territory of different states, the Confederation, "with the entente of the interested cantons," will seek to obtain the cooperation of neighboring states by initiating negotiations and concluding treaties. (Art. 8[1].) As for arrangements of limited scope, the cantons have authority to enter into agreements with foreign states. (Art. 8[2].)

36. A recent study conducted by the U.N. Panel of Experts on Integrated River Basin Development states in part that "it is now widely recognized that individual water projects—whether single or multi-purpose—cannot as a rule be undertaken with optimum benefit for the people affected before there is at least the broad outline of a plan for the entire drainage area . . .. A river is a living entity providing a source of wealth which ought to be shared equitably, as a legacy among its beneficiaries." (Integrated River Basin Development at p. 1; U.N. Document E/3066 [1958].)

The Panel of Experts consists of representatives of Great Britain, Columbia, France, The Netherlands, Pakistan, the U.S.A. and the U.S.S.R. It was established following a resolution of the Economic and Social Council at its 21st Session, May 3, 1956. The resolution emphasized the need of international cooperation on integrated river basin development and asked the experts to study the economic, social and administrative problems arising out of integrated river basin development, and to recommend ways and means for the exchange of data and experience in this area.

37. Professor Smith at 150-151 states that:

> The first principle is that every river system is naturally an indivisible physical unit, and that as such it should be so developed as to render the greatest possible service to the whole human community which it serves, whether or not that community is divided into two or more political jurisdictions.

The Indus (Rau) Commission, in the first volume of its report issued in 1942, states at page 10:

> 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.

38. The latest instance to come to our attention relates to the continuing work of the U.N. Survey Mission of the Lower Mekong River Basin in Southeast Asia. In a report issued in February, 1958 (DEVELOPMENT OF WATER RESOURCES IN THE LOWER MEKONG BASIN, U.N. Doc. C/E/CM. 11/457-ST/ECAFE/SER.F/12, Flood Control Series No. 12), the Mission stressed the benefits that would accrue to the peoples of the area from "wise conservation and utilization" of the Mekong waters. The people of the area included the nations of Thailand, Laos, Cambodia, South Vietnam. It is particularly noteworthy that the above states, some with recently won independence, have not allowed themselves to become bogged down in the mire of impractical claims of absolute sovereign rights, or the equally extreme demand for absolute territorial integrity. The report shows that they are cooperating with a view to achieving maximum development of the basin.

In a monograph prepared by Dr. E. Urban and Dr. O. Vas, both members of the Austrian National Committee attending the Sectional Meeting of the World Power Conference at Rio de Janeiro in 1954, it is stated that Austria has more and more abandoned "rigid adherence to purely legal principles" in favor of "economic and technical considerations." Of Austria's attitude and actions the following was said:

> Increasing importance has been attributed to the idea of optimum utilization, *i.e.* the viewpoint has been largely adopted that without regard to the division of watercourses by political boundaries the optimum technical and economic solution is to be attempted and jointly to be utilized.
>
> The principle of joint optimum water power utilization, so to say, forces itself upon one's mind in the case of contiguous waters and thus has received more attention than in the case of successive waters. But even in respect of successive waters arrangements have been made between Austria and her neighbour states which go far beyond the principles of notification and consultation as recommended by the Electricity Committee of the U.N. Economic Commission for Europe (cf. Recommendation No. 3). (*Austria's Experiences in International Hydro-Electric Developments*, in WORLD POWER CONFERENCE, ANNALS OF SECTIONAL MEETING OF RIO DE JANEIRO [1954], Vol. IV at 266.)

The monograph describes several examples of joint cooperation between Austria and her neighbors with a view to optimum utilization of the water resources.

Mr. H. Niesz, a Swiss representative to the Sectional Meeting of the World Power Conference, emphasized that Switzerland adheres to the principle of maximum utilization of waters of international interest, and noted that the choice of sites for developments is governed by technical and economic considerations and not by the course of political boundaries. Sr. D. Santa-Maria, a Chilean representative, expressed the view of his national committee in the following words:

> I wish to emphasize, in the name of the Chilean National Committee, some aspects of the harnessing of international water resources, based on the fundamental principle of integral utilization of the waters for all uses, such as power generation, navigation, irrigation, sanitary, industrial and recreational uses. Only in this manner will it be possible to attain maximum benefits for the advantage of communities inhabiting the regions where said resources are found, as well as the most favorable economic solution, independently of those strictly technical considerations which might justify a solution of partial harnessing of the waters for some of the uses. (*Discussion*, in WORLD POWER CONFERENCE, ANNALS OF SECTIONAL MEETING OF RIO DE JANEIRO [1954], Vol. IV at 324; trans. ours.)

Regarding the development of the Zambesi Basin the following has been stated:

> In the case of the Zambesi . . . there was agreement from the outset that the scheme would only be undertaken with the full accord of all countries having interests in that river. (Mr. G. Kennedy from Great Britain in: *Discussion*, in WORLD POWER CONFERENCE, ANNALS OF SECTIONAL MEETING OF RIO DE JANEIRO [1954], Vol. IV at 317.)

Finally, the principle of international cooperation for purposes of integrated river basin development and the necessity of sharing technical data is being implemented also by the U.S.S.R. whose enormous land mass collects 13% of the average annual stream flow of the world. In a recent publication by Mr. V. V. Zvonkov, the Russian member of the U.N. Panel of Experts on Integrated River Basin Development, it is stated:

> Most important is the extension and consolidation of international cooperation in multi-purpose water resources development, for instance, in the hydro-engineering and transport development and the flow control of one of the greatest rivers in the world—the Amur—between the U.S.S.R. and People's China, or in the shipping development of the Danube; in the utilization of other rivers involving the interests of other countries such as the Vuoksa, Western Bug, Prut, Araks, Ili, Selenga and others. (ZVONKOV, INTEGRATED WATER RESOURCES DEVELOPMENT IN THE RIVER BASINS OF THE U.S.S.R. 63 [Moscow, 1957].)

In a section devoted to "International Measures for Multi-Purpose Water Resources Development" the author states further:

> 1. It should be established that: the forms of administration and the allocation of responsibility for carrying out plans of multi-purpose water resources development will vary depending on the systems of government in a given country. The problem of administration would be placed under a centralized agency (especially for large installations of nation-wide importance) or under local agencies (for installations of a purely local significance or when they concern comparatively small parts of the country).
>
> The administering and the responsibility for the surveying, designing and construction work on the individual elements of a given project provide (sic) for by an overall plan of water resources utilization should rest with appropriate organizations that are immediately responsible for this work under state control.
>
> 2. The administrative rights and responsibility for the development of water resources in international river basins and in rivers in which two or more neighbouring countries are interested should be determined by agreements between the countries concerned.
>
> 3. Ways and means must be devised for aiding underdeveloped countries in the most effective utilization of their water resources both out of the funds of the UNO Technical Aid Organization and through separate agreements.
>
> 4. The initial state of the most effective multi-purpose development of water resources should be the drawing up of preliminary schemes for rivers or river basins as a whole; the various requirements of all interested consumers should be taken into account (power generation, navigation, land improvement, industrial and domestic water supply, fisheries, etc.). Those schemes should include the quantitative and qualitative characteristics of the water resources available, the volume of water allotted for various industries and other consumers, and economic analysis and preliminary estimation of the efficiency of the proposed measures. These schemes should serve as a basis for the further detailed designing of hydro-technical constructions.
>
> 5. Uniform methods should be introduced for size and qualitative estimation of potential water resources and of their actual utilization.

Principles and methods should be established for estimating the effectiveness of multi-purpose water resources development (the respective share of capital investment of the various industries or enterprises concerned, the net production costs, the indices of labour expenditure for the building and maintenance of hydro-engineering structures). (*Id.* at 98-99.)

39. Lador-Lederer, *Vom Wasserweg zur internationalen Gemeinschaft*, 53 DIE FRIEDENS-WARTE 225-244 (1956).

40. A very recent example endorsing the desirability of international commissions and exchange of technical data is afforded by the report of the U.N. Survey Mission dealing with the development of the Lower Mekong River Basin. (See note 38 *supra*.) The Mission recommends the establishment of a high-level international advisory board of engineers to assist an already existing Committee for Co-ordination of Investigations of Lower Mekong River Basin composed of representatives of the four states concerned. The Mission envisages hydrologic observation, aerial mapping and specialized surveys for two years, joint planning for construction of projects the third year and further joint planning for two additional years.

As regards the successful negotiation and operation of international agreements, the experience gained in the United States from the efforts to distribute resources among riparian states by means of compacts is particularly worthy of note. Mr. W. A. Dexheimer, a member of the United States National Committee participating in the Rio de Janeiro sectional meeting of 1954 of the World Power Conference, remarked that compacts arrived at arbitrarily or as a result of political pressures "have rarely been a continuing success." To insure lasting success, "Full physical data on all existing and potential developments which use stream flow, together with the flow characteristics of the stream should be available to all negotiators, and should be agreed upon." (*International Water Problems and Progress Made Through Treaties, Compacts, and Agreements*, WORLD POWER CONFERENCE, ANNALS OF SECTIONAL MEETING OF RIO DE JANEIRO [1954], Vol. IV at 229.)

The importance of international cooperation and exchange of data in the field of river development is highlighted, finally, by the results of a survey made by the United Nations of all of its organizations and specialized agencies concerned with water resources. The U.N. report (INTERNATIONAL COOPERATION ON WATER CONTROL AND UTILIZATION, E/2205, April 25, 1952) summarizes the findings as follows: "For most of the organizations surveyed, their principal concern with water resources was the exchange and interpretation of data and experience respecting some particular aspect of water control and utilization."

41. Concerning the largely underdeveloped state of the international river basins of the world, and the need for a central clearing house for the dissemination of data and the offer of technical and conciliatory assistance, the following has been said:

Of the 4 billion acre-feet of water (excluding the waters of the Congo and Amazon which remain unused) 2½ billion flow in international streams. Less than one-fourth of this water is now used.

Perhaps the key to unlock the use of this water might be found in the establishment and acceptance of jurisdiction in such matters by some international agency. Or, many of the same advantages might be attained through a private agency whose non-partisanship would be so completely evidenced, and whose ability as a competent catalyst would be so well recognized, that the nations themselves would seek its services to assist in resolving these problems. (Dexheimer, *supra*, note 40 at 234.)

42. After a review of U.N. agencies presently engaged in some form of assistance to riparians for the development of their resources, the Panel concluded:

The Panel believes that much more is urgently needed, both in expansion and co-ordination of the programs of all these agencies. There is no focus of interest on integrated river basin development. Continuing encouragement to Member Governments in these highly complicated and long-term matters is at present lacking.

The Panel discussed this state of affairs at length and concluded that nothing less than a special office or unit in the Secretariat of the United Nations can effectively carry out the heavy duties which the Panel believes it is necessary now to assume.

Such a unit would essentially have three inter-related responsibilities in the field of integrated river basin development:

(a) Systematic collection and comparison of the most important data, and promotion of a flow of information on world-wide experience through staff studies, the advice of outside experts, and regional and world-wide consultations and conferences;

(b) Co-ordination and promotion of the work of the

specialized agencies as well as of the regional commissions, having regard to their interests and terms of reference;

(c) Assistance to the various United Nations agencies in shaping a pattern of concerted action for making technical assistance available to Member Governments in developing river basins. (INTEGRATED RIVER BASIN DEVELOPMENT, at p. 41; U.N. Document E/3066 [1958].)

The usefulness of an office of the United Nations in assisting in the settlement of current international disputes and the prevention of impending ones was described as follows by the Panel of Experts:

> The Panel believes that the United Nations can play a constructive role by offering to any nations that are interested the services of an office or unit which could act to bring together the parties concerned, to resolve fundamental factual questions before disputes have reached the stage of acrimonious political debate. (*Id.* at 43.)

43. The Introduction of the February 1958 Report of the United Nations Survey Mission for the development of the Lower Mekong Basin reads in part as follows:

> The United Nations Survey Mission for the Development of the Lower Mekong Basin was organized by the United Nations Technical Assistance Administration as a result of the joint request of the Governments of Cambodia, Laos, Thailand and Vietnam. The terms of reference of the Mission are given in part (A) of the joint request which reads as follows:
>
> The Governments of Cambodia, Laos, Thailand and Vietnam have decided to establish a Committee for the Coordination of Investigations of the Lower Mekong Basin for the purpose of facilitating investigations relating to the development of the Lower Mekong Basin. These Governments now wish to obtain technical assistance from the United Nations Technical Assistance Administration in respect of this joint program of investigation.

The Mission's "Conclusions and Recommendations" which accompany the Report constitute a model document on pertinent procedures most likely to insure the rational and harmonious development of international river basins.

APPENDIX A

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 ANNUAIRE 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.)

In the second case:

> 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. (*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 the necessity of previous agreement, established at Madrid, have been respected in the actual practice of states.

The full text of the Madrid Declaration of 1911 follows:

INTERNATIONAL REGULATIONS REGARDING THE USE OF INTERNATIONAL WATERCOURSES FOR PURPOSES OTHER THAN NAVIGATION, ADOPTED BY THE INSTITUTE OF INTERNATIONAL LAW AT MADRID, APRIL 20th, 1911.

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 utilizable 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 alterations 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.

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 seemingly absolute prohibition of the Madrid Declaration 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 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 adopted on 9 December 1923 by 24 votes to 3 with 6 abstensions. It was to become operative on the ninetieth day after deposit of the third ratification. This took place on 30 June, 1925. Up to 1952 the Convention had been ratified or acceded to by Austria, Danzig, Denmark, Egypt, Great Britain (including some colonies, protectorates and mandated territories), Greece, Iraq, New Zealand (and Western Samoa), Panama and Siam. (ECE Report at 153-154. 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 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 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 Convenant 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, acceded 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.

Article 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.

A protocol added to the Convention reads as follows:

The provisions of the Convention do not in any way modify the responsibility or obligation, imposed on States, as regards injury done by the construction of works for development of hydraulic power, by the rules of international law.

The present protocol will have the same force, effect and duration as the Convention of today's date, of which it is to be considered an integral part.

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, Seventh International Conference of American States (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 "are believed to be in current legal practice and have been observed by Brazil (whose river network covers the greater part of South America), as well as by Argentina and by his own country, Uruguay." Volpi, *op. cit.* note 6, *supra*, at 18.

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: "No State can isolate itself within the old sovereignty concepts and paralyze the desire to use these natural resources, and to this we owe the frequency of international Congresses and Conferences whose conclusions, purely by their moral strength, have, one might say, become imperative as an expression of those juridical, economic, and technical principles that are most adequate to the achievement of said utilization." (Volpi, *op. cit.* note 6, *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, Seventh International Conference of American States (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 the failure of those countries 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:

> It seems logical to suppose that the reservations formulated in 1933 by Mexico and the United States vanished with the signing of the treaty in 1945 that resolved the problems of utilization of the waters of the Bravo and Colorado Rivers, a fact which shows that the Argentine Delegate to the Seventh International Conference of American States was right when he pointed out that the objections formulated by Mexico and the United States were based solely on a desire not to affect the solution of questions of local character which in those days were current. (Volpi, *op. cit.* note 6, *supra*, at 18, n. 1.)

The full text of the Declaration of Montevideo follows:

THE SEVENTH INTERNATIONAL CONFERENCE OF AMERICAN STATES DECLARES:

1. In the 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 members 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 "Plata" River System 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 Secretaría de la Delegación 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: "The Conference of the Plata River System resolves: . . . Article II—to recommend that the States represented, inspired by the principles proclaimed by the Seventh International American Conference of Montevideo, negotiate treaties among themselves on the industrial and agricultural uses of these rivers."

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 417 (XIV), YEARBOOK OF THE U.N. 383-384 [1952].) One author has written that this Resolution ". . . is in reality an enunciation of certain fundamental principles governing the matter." Lados-Lederer, *International Waterways—The Organizational Standard of the Enunciative Regime*, REVUE DE DROIT INTERNATIONAL DES SCIENCES DIPLOMATIQUES ET POLITIQUES 388, 395 (Oct.-Dec. 1956).

Pursuant to Resolution 417 the Secretary-General of the United Nations began action to co-ordinate the work of promotion of international co-operation for the development of water resources. His efforts are described in his Report of 18 May 1954 (E/2603) which contains a special chapter III on "Integration and Co-ordination at the various levels." The matter was discussed at the 820th, 822nd, and 823rd meetings of ECOSOC, with UNESCO and FAO participating in the discussions. A resolution (E/629/Rev. 1) was voted at these meetings which reaffirms Resolution 417, and requests the Secretary-General to consult agencies, regional and economic commissions, appropriate private, technical and scientific societies on ways and means of improving international co-operation in regard to water resources development.

These activities are paralleled by UNESCO on the scientific plane. The General Conference of UNESCO (VIth Session, Paris, 1951) authorized the Director General "to collect and disseminate information on research being carried out on problems of the Arid Zone" (Res. 2,251, Doc. 6C/Resolutions). A questionnaire was sent out by circular letter (ML/636, Nov. 1951). The answers are reproduced in: DIRECTORY OF INSTITUTIONS ENGAGED IN ARID ZONE RESEARCH, 1953.

A resolution of the Economic and Social Council adopted at its 21st Session, on May 3, 1956, considered the need for international co-operation in the development of water resources and established a Panel of Experts to study the matter. Emphasis was placed on the necessity of international co-operation on integrated river basin development and the experts were asked to study particularly the economic, social and administrative problems arising out of integrated development schemes, and to recommend ways and means to further the exchange of data and experiences in this field. The Panel produced a first report, early this year, to be considered by the Economic and Social Council at its session in April, 1958. The Panel's views, so far as relevant to the present

purpose, can be summarized in the following quotation from the report:

> . . . it is now widely recognized that individual water projects—whether single or multi-purpose—cannot as a rule be undertaken with optimum benefit for the people affected before there is at least the broad outline of a plan for the entire drainage area . . ..A river is a living entity providing a source of wealth which ought to be shared equitably, as a legacy among its beneficiaries. (INTEGRATED RIVER BASIN DEVELOPMENT 1; U.N. Dept. of Economic and Social Affairs, E/3066 [1958].)

The resolution adopted by the Economic and Social Council after considering the report of the Panel of Experts is attached as an exhibit.

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 international 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 prepared by Mr. John G. Laylin 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 in-

terest because of the revival there 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 of 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.

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. Mr. 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 benefiting 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, UTILISATION DES EAUX INTERNATIONALES NON MARITIMES (EN DEHORS DE LA NAVIGATION) 55-57, Institut de Droit International [1957].)

The Resolution of the Inter-American Bar Association Buenos Aires, 1957

At the Tenth Conference of the Inter-American Bar Association held at Buenos Aires on November 14-24, 1957, Committee I on Public International Law had on its agenda, as Topic 4, "Principles of Law Governing Use of International Rivers." The Committee considered the questions on international river law in several meetings and had the benefit of several papers on the subject. A Resolution was drafted for presentation to the Executive Council first and later to the Plenary Session of the Association. The principles drafted are stated as existing international river law and accord with the principles of corresponding rights of riparians, entitlement by each to a just and reasonable share of the waters of international rivers, the protection of lawfully established beneficial uses, the duty to refrain from unilateral action before co-riparians can ascertain whether or not they will be injured by proposed changes, and the relevance of present and future needs of co-riparians where a just solution of conflicting claims is being sought.

The draft Resolution proposed also the establishment of a permanent Committee of the Inter-American Bar Association to study and report on a list of further questions of international river law. A recommendation was added that states participate in the collection and exchange of physical and economic data essential for the planning of a rational use of the waters.

The Executive Council and the Plenary Session of the Association adopted the principles of international river law stated in the draft resolution and authorized the establishment of the Committee without dissent. The Committee, which includes internationalists from many states of the Western Hemisphere, is already functioning.

The text of the Resolution of the Tenth Conference of the Inter-American Bar Association follows:

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.

APPENDIX B
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 Upper Rio Grande, where both banks are in the United States, 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, and the Supreme Court has refused to follow such a theory. (See note 17 *supra*. See also Appendix C at 88-89 for an appraisal of the Harmon opinion by a Canadian statesman.)

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, 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 the 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. 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 of the United States, has imposed on the Drainage District limitations which go far toward meeting such limitations as derived 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 two per curiam decisions the Supreme Court has recently authorized a temporary increase of diversions from the Great Lakes—St. Lawrence System into the Illinois Waterway and

the Mississippi River. The increased diversions were motivated by the emergency in navigation caused by the low water in the Mississippi River, and were ordered to last for only two months, after which period the old regime was ordered restored. The Court stated that the order was not to prejudice the legal rights of any of the parties with respect to any other diversion. *Wisconsin* v. *Illinois, Michigan* v. *Illinois, New York* v. *Illinois*, 352 U.S. 945, 983 (1956, 1957). These cases are still pending in the Supreme Court at the time of this writing.

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 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, 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 explained and commented on the origins of the Harmon opinion as follows:

> As for the Harmon opinion, the conclusion reached therein that from the standpoint of international law Mexico was entitled to no waters of the Rio Grande was apparently based primarily on language used by the Supreme Court in the celebrated Schooner Exchange Case, to the effect that the jurisdiction of a nation within its own territory is necessarily exclusive and absolute and susceptible of only self-imposed limitations. It may be well to point out that that case did not deal with the question of allocation of waters of international rivers or with the alleged right of one State through which such a river flows to do as it saw fit with the waters, or any other related subject. The sole question before the court was whether the courts of the United States had jurisdiction over a vessel of a foreign government while wholly within the territorial limits of the United States. (*Hearings, supra,* Part 5, at 1740-41 [1945].)

In summing up his testimony Mr. English stated:

> 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 [1945].)

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 [1945].)

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 nearly unanimous opinion elsewhere in the world. For evidence of the present position of the United States on these questions see the recent memorandum of the U. S. Dept. of State attached to this commentary as an exhibit.

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 did not demand the continuation by Peru 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 remarkable in that it establishes a positive servitude. 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.

At the Seventh Inter-American Conference of Montevideo the Chilean delegate voted in favor of the "project for declaration" on industrial and agricultural uses of international rivers; the project became the final text of the Declaration of Montevideo of 1933, whose principles recognize fully the corresponding rights of riparians with respect to the uses of the waters of international rivers. (See Appendix A for the text of the Declaration.)

Additional evidence of Chile's recognition of principles of mutuality in the utilization of the waters of international rivers can be gathered from statements made by Sr. D. Santa-Maria, one of Chile's delegates to the Sectional Meeting of the World Power Conference, held at Rio de Janeiro in 1954. Sr. Santa-Maria, purporting to speak in the name of the Chilean National Committee, stressed the importance of the "fundamental principle of integral utilization of the waters for all uses," in the harnessing of international water resources, as distinguished from mere power development. *Discussion*, WORLD POWER CONFERENCE, ANNALS OF SECTIONAL MEETING OF RIO DE JANEIRO (1954), Vol. IV at 324; trans. ours.

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.

A complete account of Austria's actions and present attitudes in the field of international river use appears in a paper presented by Dr. E. Urban and Dr. O. Vas to the Sectional Meeting of the World Power Conference held at Rio de Janeiro in 1954. The authors, both delegate-members of the Austrian National Committee, emphasize Austria's recent consistent policy of recognition of the rights of co-riparians and gradual abandonment of "rigid adherence to purely legal principles" in favor of "economic and technical considerations" with a view to optimum development of international river basins. *Austria's Experiences in International Hydro-Electric Developments*, WORLD POWER CONFERENCE, ANNALS OF SECTIONAL MEETING OF RIO DE JANEIRO (1954), Vol. IV at 266.

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. Negotiations for the solution of this dispute are still in progress.

A brief review of practices followed and principles recognized in the Sub-Continent before Partition furnishes valuable evidence of international law governing water uses. The account which follows is based on a note by Manzur Qadir, Barrister-At-Law (Lincoln's Inn), Senior Advocate, Supreme Court of Pakistan. The note appears in PRINCIPLES OF LAW GOVERNING THE USES OF INTERNATIONAL RIVERS, Lib. Cong. Cat. Card No. 57-10830.

In the period from 1858 to 1921, all questions concerning irrigation in the provinces were under the direct authority of the Secretary of State for India, a British Cabinet Minister. Questions concerning irrigation in the states were under the direct authority of the rulers of those states. The states having, by treaty, delegated the handling of their foreign affairs to the British Crown, differences between them and several provinces were resolved by the Secretary of State for India acting, as it were, as an arbiter.

In 1865, the Secretary of State for India issued an order that established the basic principle upon which requests for the construction of new irrigation projects would be entertained. This order, one of the earliest enunciations of the principle of sharing on a fair basis in the common river resources, directed:

> . . . The only project which should be entertained by the Government of India is the best that can be devised *irrespective of the territorial boundaries* of the British and foreign States, in the benefits of which the native States should be allowed to participate on like terms with our own subjects. (Emphasis is ours. Quoted in printed Completion Report of the Sirhind Canal.)

The principle set forth in the above-quoted order was adhered to until the beginning of the present dispute.

In 1918, representatives of the British Indian Province of the Punjab, and the States of Bahawalpur and Bikaner met to

arrive at a distribution of Sutlej River supplies. The following basic principle which had been suggested by Sir Claude Hill, Chairman of the meeting and representative of the Government of India, was accepted:

> That in considering the method of disposing of the waters made available for irrigation by the Sutlej Valley Project, the general principle is recognized that these waters should be distributed in the best interests of the public at large, irrespective of Provincial or State boundaries, subject always to the proviso that established rights are fully safeguarded or compensated for, and that full and prior recognition is given to the claims of riparian owners, and that their rights in the existing supplies or in any supplies which may hereafter be made available in the Sutlej river below the junction of the Beas and Upper Sutlej are fully investigated and are limited only by the economic factor. (Quoted in Bikaner's brief printed in Report of the Indus (Anderson) Committee, Vol. II, p. 60 [1935].)

As a result of the constitutional reforms of 1919, questions concerning irrigation came to be determined by the Government of India instead of the Secretary of State for India. A central board of irrigation was provided for to advise the government in this matter. It was under this statutory authority that the Indus (Anderson) Committee was set up in 1935. This committee was appointed to deal with allocation of supplies involving the British Indian provinces of the North West Frontier, the Punjab and Sind, and the States of Bikaner, Bahawalpur and Khairpur, each of which asserted rights in the waters of the Indus Basin. Representatives of each of these governments were appointed to the committee and took part in its deliberations. The principle by which the committee was guided, and in which all of its members concurred, was stated as follows:

> . . . that in allocating water, the greatest good to the greatest number must be sought without reference to political boundaries. (Report of the Indus (Anderson) Committee, Vol. I, p. 23 [1935].)

Throughout its deliberations the committee recognized that the 1865 order, which it cited, had established a basic principle for the equitable apportionment of the waters of the Indian Sub-Continent.

The allocations of water agreed to by representatives of the interested states and provinces on the basis of this principle were approved in orders of the Government of India. (Orders dated March 30, 1937.) The orders affirm the principle that

equitable apportionment governs the allocation of Indus Basin waters and that allocation agreements and awards are binding until replaced by new agreements or awards.

No adjudication and no official statement until after Partition so much as suggested that any different principles should govern the apportionment of Indus Basin waters.

In 1937, authority over irrigation was transferred to the provinces, pursuant to the Government of India Act of 1935. Under the scheme of the Act, the provinces were given full legislative authority over irrigation matters within their borders. If differences arose between provinces or between provinces and States, the question had to be resolved by the central authority acting upon the advice of independent commissions. The situation thus became parallel to that existing in the United States where the states are sovereign as to irrigation matters within their borders, but when differences arise between the equal states, the Supreme Court of the United States has compulsory jurisdiction to resolve their differences.

In 1939, the Province of Sind brought a complaint under the Act of 1935. The gravamen was that the withdrawals contemplated with certain new projects of the Punjab, when added to those of certain other projects already in operation or about to be completed, would have the effect of lowering the water level of the Indus River in Sind, thereby impairing the operation of its inundation canals. Subsequently the states of Bahawalpur, Khairpur, Bikaner, and Jind and the North West Frontier Province were made parties and submitted their views to the Commission established to hear the dispute. This Commission, officially termed the Indus Commission, came to be known as the Rau Commission, after the name of its distinguished Chairman, Sir Benegal N. Rau, later a judge of the International Court of Justice from 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 are reproduced in Appendix D. 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 stated 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.

That India is not firmly committed to the doctrine of unlimited sovereign rights in international rivers is indicated by her protest when East Pakistan was contemplating some changes in the existing regime of another common river.

By note dated 13th February 1950, the High Commissioner for India in Pakistan informed the Pakistan Minister for Foreign Affairs and Commonwealth Relations as follows:

> The Government of India have received reports about a project for the construction of a dam on the river Karnafuli near Mitingachari in East Pakistan. They have been informed that a dam about 100 ft. in height is under contemplation. If this information is correct, the reservoir above the proposed dam is likely to submerge a large area in the Lushai Hills district of Assam. *The Government of India cannot obviously permit this* and trust that the Government of Pakistan will not embark on any works likely to submerge "land situated in India." They would be grateful therefore for an assurance from the Government of Pakistan that the proposed dam will not submerge any land in the Lushai Hills district of Assam. (Emphasis is ours.)

By note dated April 15, 1950, the Pakistan Ministry of Foreign Affairs and Commonwealth Relations informed the Government of India "The Government of Pakistan are not contemplating the construction of a reservoir likely to submerge land in the Lushai Hills district of Assam."

APPENDIX C

STATEMENTS (NOT REPRODUCED IN APPENDIX B) BY GOVERNMENTS AND OFFICIALS INVOLVED IN SOME PAST AND CURRENT INTERNATIONAL RIVER DISPUTES

Africa

A declaration by the British High Commissioner in the Sudan in 1925 expressly recognized "the natural and historic rights of Egypt in the waters of the Nile," and did so in advance of the negotiations which led to agreement in 1929. While the conversations were going on, Sir Austen Chamberlain, as Foreign Minister of the United Kingdom, sent a draft of note to the British High Commissioner in Egypt, dated 9th November 1927, in which he confirmed the basic principle recognized as governing the riparians of international rivers. His draft reads, in part, 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. (Paper regarding negotiations for a treaty of alliance with Egypt, Egypt No. 1 Cmd. No. 3050 at 31 [1928].)

The Sudan since becoming completely independent has expressly acknowledged Egypt's right to the continuance of Nile supplies that flow from Sudan into Egypt. That this is an admission against interest and one in recognition of a duty imposed by international law can be seen from the fact that the Sudan fixes Egypt's "present established right" at 48 billion cubic meters and its own at 4 billion. That the Sudan is not merely bowing to international comity can be shown by her insistence upon a present allocation of surplus supplies lest Egypt "continue to acquire established rights as she has in the past, and the Sudan would be the loser" (THE NILE WATERS QUESTION 6 [Ministry of Irrigation and Hydro-Electric Power, Khartoum, December, 1955]).

Western Hemisphere

Statements made by representatives of the United States Government during the period in which ratification of a water treaty with Mexico was being sought are reproduced in Appendix B, *supra*, and are consistent with the principles of corresponding rights and duties of co-riparians *inter se*.

The legislative history of the water treaty of 1909 between the United States and Great Britain (for Canada) is also illuminating. The views taken by the two governments and their officials as to their respective rights in the waters of their common rivers and lakes are illustrated in the following extracts from a memorandum of the United States Department of State presented to the Senate Committee on Interior and Insular Affairs on April 21, 1958. The memorandum was requested to help determine the legal rights of the parties in the present controversy between the United States and Canada over the distribution and utilization of the waters of the Columbia River system.

"The Treaty between the United States and Great Britain relating to boundary waters and questions arising between the United States and Canada was signed at Washington, D. C., January 11, 1909, and came into force on May 5, 1910. The life of the treaty is continuous; it may, however, be terminated by 12 months' notice given by either party.

"The Treaty in pattern and content deals with three categories of waters:

"(1) Boundary waters, defined in a Preliminary Article as the waters along which the international boundary passes, but not including their tributaries or distributaries or the waters of rivers flowing across the boundary. Provisions regarding the regulation and apportionment of boundary waters in general are found in Articles III and VIII and in Article V with respect to the Niagara River. Boundary waters are not involved in the present study.

"(2) Waters on either side flowing through natural channels across the boundary or into boundary waters.

"Article II—

"'reserves' to the United States and Canada '. . . the exclusive jurisdiction and control over the use and diversion' of all such waters on their own side; and

"specifies that '. . . any interference with or diversion from their natural channel of such waters on either side of the boundary, resulting in any injury on the other side of the

boundary, shall give rise to the same rights and entitle the injured parties to the same legal remedies as if such injury took place in the country where such diversion or interference occurs'; and that

"neither the United States nor Canada surrenders any right '. . . to object to any interference with or diversions of waters on the other side of the boundary the effect of which would be productive of material injury to the navigation interests on its own side of the boundary.'

"Article VI contains agreed provisions apportioning the waters of the St. Mary and Milk Rivers and their tributaries in Montana, Alberta and Saskatchawan, which waters would otherwise come under the general provisions of Article II.

"Both the projected Canadian Kootenay-Columbia diversion and the Chicago diversion from Lake Michigan fall under Article II.

"(3) Waters on either side flowing from boundary waters or flowing in rivers from across the boundary. Article IV prevents in such waters, dams or other works which would raise the natural level on the other side, unless approved by the International Joint Commission. Works such as the Libby Dam and Reservoir come under Article IV." (Memorandum of the Dept. of State, p. 7-8, mimeo. edition [April, 1958].)

The Treaty was ratified by Great Britain on March 31, 1910, and came before the Canadian House of Commons for the first time in December, 1910, in the debate upon a bill regarding the establishment of the International Joint Commission under the Treaty. Among the statements made during the debate the following are of particular interest. (Debates, H. of Commons, Doc. Can., Sess. 1910-11, Vol. I, pp. 870-912, *passim.*)

"Mr. PUGSLEY. [Minister of Public Works]. (Speaking in regard to Article VI concerning the St. Mary's and Milk rivers.) . . . So in the absence of a treaty, and if it were recognized that either country could assert its rights to the waters so far as they were within the territory of such country, the United States, if it chose to exercise rights, might divert the waters of both of those rivers before they enter into Canadian territory, carry them eastward into the Marias river, and so on down to the Missouri, and thus deprive the people of Alberta of the right to use any portion of those waters which have their source in the United States.

"Mr. BORDEN (Halifax). I would like to see some authority for the position that they can do that under the principles of international law.

"Mr. PUGSLEY. My own opinion is that there is no question (During the debate the Canadian Prime Minister, Sir Wilfrid Laurier, and the Canadian Minister of Justice, Mr. Aylesworth, did not agree with Mr. Pugsley's view of international river law) about their right to do it, unless by so doing they interfered in some way with navigation in the adjoining country.

"Mr. BORDEN (Halifax). What difference in principle is there between the right of navigation and the right to use for other purposes? I cannot see the distinction. If they can divert so as to interfere with the use of it for irrigation, why can they not interfere with its use for navigation? What difference is there in principle? The principle which would forbid it in both cases is this, that the river runs partly through the territory of one sovereign power and partly through the territory of another sovereign power, that both have rights in it, and that neither one of those countries can use that water to the detriment of the other. That has always been my idea. I would like to see some authority for the position the minister takes.

* * * * *

"Mr. BORDEN (Halifax). I would like to say to my hon. friend the Minister of Public Works that he evidently had not examined all the authorities when he made the rather sweeping statement that no authority could be found in opposition to the view which he presented very forcibly to the committee. I have in my hand the first volume of a treatise on international law by Prof. Oppenheim, a very well known and able writer and lecturer on international law. This gentleman is Lecturer in Public International Law at the London School of Economics and Political Science (University of London), and a member of the faculty of Economics and Political Science of the University of London, and formerly Professor Ordinarius of Law in the University of Basle, Switzerland. In the preface of the book he says:—

"'I have nearly always taken pains to put other opinions, if any, before my readers. I have been careful to avoid pronouncing rules as established which are not yet settled. My book is intended to present international law as it is, not as it ought to be.'

"All through the book where there is any doubt as to any particular doctrine, he always presents the doubt. I am indebted for reference to this authority to my hon. friend from St. Anne (Mr. Doherty). On page 175 my hon. friend will find this:—

"'Just like independence territorial supremacy does not give a boundless liberty of action. Thus, by customary

international law every state has a right to demand that its merchantmen can pass through the maritime belt of other states. Thus, further, navigation on so called international rivers in Europe must be open to merchantmen of all states. Thus, thirdly, foreign monarchs and envoys, foreign men-of-war, and foreign armed forces must be granted exterritoriality. Thus, fourthly, through the right of protection over citizens abroad which is held according to customary international law by every state, a state cannot treat foreign citizens passing or residing on its territory arbitrarily according to discretion as it might treat its own subjects; it cannot, for instance, compel them to serve in its army or navy. Thus to give another and fifth example, a state is, in spite of its territorial supremacy, not allowed to alter the natural conditions of its own territory to the disadvantage of the natural conditions of the territory of a neighbouring state—for instance, to stop or to divert the flow of a river which runs from its own into neighbouring territory.'

"Exactly the point we have been debating this afternoon and a direct authority against the position which the Minister of Public Works (Mr. Pugsley) has taken.

"Mr. PUGSLEY. Is that not in the case of a navigable river?

"Mr. BORDEN (Halifax). It says nothing of the kind. I will read it again. It cannot mean what my hon. friend suggests it means, because the very second example he gave was that navigation on international rivers in Europe must be open to the merchantmen of all states. He is dealing with something else, something fuller and more comprehensive.

"'Thus to give another and fifth example, a state is, in spite of its territorial supremacy, not allowed to alter the natural conditions of its own territory to the disadvantage of the natural conditions of the territory of a neighbouring state—for instance, to stop or to divert the flow of a river which runs from its own into a neighbouring territory.'

"If the writer of this book had intended to use language absolutely descriptive of the very point we are debating now, he could not have used any more apt for that purpose. It seems to me that the Minister of Public Works and the government must have been altogether too much influenced by the opinion of the Attorney General of the United States in the Mexican case to which he refers and must have accepted as a thoroughly reliable statement of international law what was, after all only an argument made by the Attorney General of the United States in opposition to a claim for damages from Mexico, I would be inclined to think that the government in entering into

this treaty have had a wrong impression as to the international law on this subject. The Minister of Public Works took pains to state that the rule of international law as he understood it was embodied in the terms of this treaty except that a right of action was provided. It would appear that international law is not embodied in the terms of this treaty, that a very different principle is laid down and recognized by this treaty, one for which my hon. friend says the United States has made contention in the past, notably in the case of a dispute with Mexico to which he alluded. I do not know that there is any particular reason why we should have been led in this particular case to accept as a true statement of international law that which was simply an argument, a brief for the United States, put forward by its Attorney General, whose duty it was to put forward that argument in the way which best might serve to maintain the interests of the United States. I think that my hon. friend the Minister of Public Works has not made good his position or the position of the government; he has merely made it apparent to the House that the government, in entering into this treaty, have done so with not very much regard to international law, and as far as they did have any regard thereto, under a very thorough misapprehension as to the rules of civilized nations with regard to this subject."

* * * * *

In a chapter entitled "Observations and Conclusions Regarding the History of the Treaty and the Canadian Position" (Chapter VI, p. 98 of mimeo. edition), the memorandum of the Department of State continues:

"The question under consideration here is whether the history of the negotiations supports the Canadian position that Article II, (1) authorizes in either country unlimited diversion of waters flowing across the boundary or into boundary waters regardless of injury in the other, (2) subject to the payment of damage claims arising in the latter country only if a legal remedy exists where the diversion takes place. It is clear the record does not support the Canadian position.

"The first observation to be made is that it is reasonable to assume that if either point of the Canadian position had expressly engaged the negotiators' attention, their views would occupy a prominent place in the record. However, the record is devoid of any express consideration of either point of the Canadian position.

"The record also shows that neither the negotiators nor their Governments could have intended Article II to support the

Canadian position, notwithstanding the opinion of Attorney-General Harmon.

"When the negotiations on this point are looked at in the light of the then existing situation, it is clear that the words of Article II in and of themselves do not support the Canadian position. At that time the United States was proposing diversions from the St. Mary River which runs into Canada. In response to Canadian objections based upon possible injury to existing uses in Canada the United States had replied that it intended to safeguard such uses. The Canadian Government proposed negotiation of an equitable settlement on this basis. The issue in this correspondence was the right of either Government to make or authorize a diversion which might cause injury in the territory of the other. The record does not indicate that the United States invoked the Harmon opinion in this correspondence, but even if it did, the United States in fact agreed in Article VI to an equal apportionment of the St. Mary and Milk Rivers.

"The Canadian negotiators held the view that diversions in one country likely to cause injury in the other are subject to the latter's consent, and they therefore proposed that such cases in the future be referred for decision to an international judicial commission. The United States negotiators disagreed with this Canadian view, so they proposed an investigative commission, but were also willing that the commission act as a judicial body to decide cases referred to it by future agreement of the two Governments as they arose. With reference to this impasse, Mr. Gibbons wrote to Secretary Root:

> "Dealing with the question of streams crossing the international boundary, it does seem to me that the two countries must either accept the principles suggested by the Commission or reject them and leave each country free to do as it sees fit within its own territory with regard to these waters.

"The reservation of exclusive jurisdiction and control is, in effect, an adoption of the alternative posed by Mr. Gibbons. But, it is to be observed that to 'leave each country free to do as it sees fit within its own territory' is merely a continuation of the then existing situation under which a proposed diversion in one country may possibly give rise to diplomatic representations by the other, in which the very issue is the former's right to make the diversion. Such a situation may remain unsettled, or may possibly be settled by agreement or arbitration. Situations such as this are usual in international law, and only

mean that each nation is in the first instance the judge of its own international legal obligations. In other words, it does not follow that because it was agreed that each country reserves its exclusive jurisdiction and control within its territory (i.e. has sovereignty), it was also agreed that each country could exercise its sovereignty without regard to the injury that might be caused in the territory of the other.

"There is no evidence in the record that the United States negotiators intended the general reservation of jurisdiction and control to incorporate the Harmon opinion into the Treaty. If the Harmon opinion is legally sound, it applies to all categories of waters because a nation is sovereign and therefore has wholly within its control, all matters up to its borders regardless of whether the boundary runs across or along a waterway. Mr. Anderson's memorandum of December, 1907, to Secretary Root, points this out with respect to boundary waters as follows:

> "This doctrine [that boundary waters are held in common] seems hardly permissible, however, as it conflicts with the recognized principle of absolute territorial sovereignty on each side up to the international boundary line, which principle negatives any right of ownership in common or joint ownership in the waters themselves.
>
> "On the other hand absolute sovereignty carries with it the right of inviolability as to such territorial waters, and inviolability on each side imposes a co-extensive restraint upon the other, so that neither country is at liberty to so use its own waters as to injuriously affect the other.
>
> "In either case, however, the conclusion is justified that international law would recognize the right of either side to make any use of the waters on its side which did not interfere with the co-extensive rights of the other, and was not injurious to it, . . .

"As Mr. Anderson pointed out in the foregoing paragraphs, the truism that a state is sovereign in its territory does not lead to the conclusion that a state may legally make unlimited use of waters within its territory. Surely, if Mr. Anderson believed the Harmon opinion to be legally sound he could not have written these paragraphs.

"If the United States negotiators had regarded the Harmon opinion as legally sound, and intended the Treaty to incorporate it, they most likely would have said so in documents written by them, especially on the subject of waters flowing across the boundary or into boundary waters. However, neither Mr. Anderson's letters or memoranda to Secretary Root, nor

the latter's correspondence with the British Ambassador contain any mention of the Harmon opinion.

"Although there is no direct evidence that the United States negotiators cited the Harmon opinion, they undoubtedly did so, probably orally. But it is clear that the Canadian Government in 1910 did not regard the Treaty as incorporating the Harmon opinion. When the House of Commons was debating a bill to implement the Treaty, the Minister of Public Works said that in his opinion the United States was right in contending that the Harmon opinion correctly stated international law. When the leader of the opposition asked, 'Has the government accepted that contention?', the Minister replied, 'No, the treaty is not framed on that theory.'"

Asia

The Helmand River

The Helmand River (called in Iran the Hirmand) traverses Afghanistan and debouches in a lake in Iran. Irrigation has been practiced since time immemorial in the delta of the Helmand. Until 1857, the delta was subject to repeated challenges and under the Treaty of Paris of 1857 (AITCHISON'S TREATIES, [5th ed., 1933], Vol. 13, at 81) Persia was obliged to acknowledge the independence of Afghanistan under the suzereignty of the British Crown. The British agreed with Persia under the treaty to "use their best endeavours to compose" differences between Afghanistan and Persia, "in a manner just and honorable to Persia" (Art. VI.)

Disputes arose between Persia and Afghanistan over the boundary in the delta area and over the division of the water of the Helmand River. On August 9, 1870, the British Government appointed Major General Frederick Goldsmid to settle the boundary question of Afghanistan, Persia and India. The boundary between Afghanistan and Persia was drawn in such a way as to give Afghanistan domination over both banks of the Helmand above a certain diversion structure called Band-i-Seistan. The portion of the delta where the principal irrigation was practiced and where the major population lived remained in Persia, but an area through which supply canals necessary for irrigation in parts of Persia had run and had to continue to run was transferred to Afghanistan. The award prescribed, however, that:

> It is, moreover, to be well understood 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.

A precedent was established to the point that when a political boundary is drawn across an existing irrigation system, it is not "just and honorable" to "interfere with the requisite supply of water for irrigation."

Implementation of the award proved difficult in times of short water supply. In 1905, a mission headed by Colonel A. H. McMahon was sent out by the British to gather facts and make recommendations for the implementation of the Goldsmid award. The Persian Government sought to make it clear that the McMahon recommendations would have no binding effect if they departed from that award. The McMahon mission made some very careful investigations and submitted some most valuable reports. They constitute, indeed, the most complete engineering information yet gathered and published on the Helmand River and the uses dependent upon it. McMahon also issued what purported to be an arbitral award.

Persia promptly declined to accept the "award" as binding, on the ground that it went outside of the Goldsmid award. Afghanistan today declines to accept the "award" as binding, perhaps in part because it was not binding on Persia. The action of the McMahon mission was, however, not without significance as evidence of the opinion of a well-informed mission from a country that at the time could not be accused of partiality toward Persia, but nevertheless was under a treaty obligation to see to it that the differences between Afghanistan and Persia were dealt with "in a manner just and honourable to Persia."

In the "award," the legal scholar has evidence of a practice that riparian states must see to it "that the supply of water requisite for irrigation on both sides is not diminished." More positive duties were imposed on the upper riparian. The lower riparian was authorized to come into its territory to improve the engineering installations because of their "great importance to the welfare of" the lower riparian. Similarly, the lower riparian was enjoined to grant reciprocal rights "should it become necessary for" the upper riparian (Clause VI). "Rights" as such are recognized to both parties (Clause VII).

In more recent times, Afghanistan and Iran have again had occasion to review their respective rights in this international river. A series of droughts, the construction or prospective construction of storage dams upstream in Afghanistan and increased withdrawals upstream led to Iranian apprehensions and charges resulting in a series of negotiations. At one point in these negotiations both sides accepted the good offices of the

State Department of the United States and agreed to have a commission make investigations and recommendations. The commissioners consisted of Francisco J. Dominguez of Chile, Robert L. Lowry of the United States and Christopher E. Webb of Canada. They had the assistance of Mr. Malcom H. Jones, first as Engineer Fact-Finder and subsequently as Engineer Secretary. The Commissioners were themselves also engineers experienced in water matters and water disputes. In disputes such as these the lawyer must become part engineer and the engineer part lawyer.

Each side put before the Commission its views. The Iranian brief maintained:

> The international law on the obligations of States appropriating water from international rivers for irrigation projects is one part of the body of international law enjoining actions in the territory of one State having ramifications in the territory of another State injurious to the interests of that State. This body of rules draws its validity from the practice of civilized nations and from the general principles of law recognized by them.

It undertook to state certain subsidiary rules to the broad principles, as follows:

> In general, the rules which have been developed may be stated quite simply: Each riparian State is entitled to continue to obtain its historical supply of water from an international river for the purpose of irrigation and domestic consumption. This historical irrigation has priority over any later project to appropriate the river's waters. With regard to any surplus waters which may remain after the amounts traditionally required are supplied, each riparian State is entitled to share in the use and development of the common supplies. The surplus waters are to be shared fairly taking into account the relative requirements. Furthermore, the riparian States are entitled to share in the improved availability of the river supply through engineering works, and are under an obligation to cooperate so as to preserve each other's interest in the development of the river.

The Afghan brief is not available to the writers. It may be presumed that it did not admit any legal obligation to respect Iran's existing uses or to yield to Iran's claim for an equitable share of the unappropriated water supplies. It should be stated, however, that throughout the negotiations the Afghan spokesmen affirmed the intention on the part of Afghanistan to protect Iran's existing uses.

After considering the submissions of both sides and making an investigation on the spot, the Commission issued its "Report of the Helmand River Delta Commission, Afghanistan and Iran, February 1951." The recommendations did include technical suggestions, but they were by no means confined to that. The Commission found:

> . . . the traditional beneficial uses which have been established in Seistan and Chakansur [the Iranian and Afghanistani areas in the delta] should be recognized. An agreement should be reached that in normal years the monthly requirements now established will not be depleted by new upstream uses . . . . (Paragraph 208)
>
> The rate of storage in the Kajakai Reservoir should be so limited that the required normal flows to maintain existing uses in the delta are not depleted . . . . (Paragraph 212)

The recommendations, in fact, constitute the conclusions of experts in the field of water controversy as to the practices accepted as being "just and honorable" and practical.

The negotiations between Afghanistan and Iran have not yet culminated in a permanent water treaty. Differences over factual questions still exist and investigations are to be made to resolve them. We understand that Afghanistan has expressed the intention to abide by the recommendations of the Commission and accordingly to refrain from new upstream withdrawals that would have the effect of causing injury to existing irrigation in Iran.

The Jordan River

The Jordan has a treaty history recognizing rights based upon existing uses. (Hirsch, *Utilization of International Rivers in the Middle East*, 50 AM. J. INT'L L. 91 [1956].) In 1953 Syria filed a complaint with the Security Council against Israel's proposed withdrawals from that river. While this related primarily to preservation of the status quo in the demilitarized zone, nonetheless, the use to which Israel proposed to put the river and the effect of that use upon Syria's rights were considered tangentially.

The positions assumed by both sides on this matter are consistent with established customary international law. The Israeli delegate stated:

> . . . my Government is willing and able to give perfect assurance that no legitimate rights of any person any-

where will be adversely affected by this project. (Security Council Official Records, 649th Meeting, December 17, 1953, S/PV. 649 at 16.)

Syria raised the question of continued water supplies for its Buteiha Farm. As to this the Israeli delegate stated "that interest can be completely protected in the execution of the project." (*Id.* at 15.)

The Syrian delegate, who was concerned whether the Buteiha Farm could be protected, maintained:

> There is no doubt whatever that in this case a mutual prior agreement for the use of the waters is necessary before any project can be started in connection with them. (*Id.* at 21.)

In language that could be said to characterize the legal history of international rivers in this entire region, the Syrian delegate had this to say:

> These waters have been used in Syria and continue to be used there. That is why the international agreements which were entered into between the United Kingdom and France, as Mandatory Powers in southern Syria, northern Syria and Palestine, recognized the existence of such established Syrian rights, rights which have existed for a long time. (*Id.* at 20-21.)

Again, the French delegate stressed the rights of existing uses and insisted that

> It is of course necessary that the rights of every party should be respected . . . riparian owners are entitled to use the water for irrigation; and in this connection I refer particularly to the rights of the agricultural area called Buteiha Farm. (*Id.* at 7.)

APPENDIX D

REPORT OF THE INDUS (RAU) COMMISSION (1942)

VOLUME I. REPRINTED BY THE SUPERINTENDENT, GOVERNMENT PRINTING, LAHORE (PUNJAB), 1950.

The Commission was appointed in 1941, pursuant to the Government of India Act, 1935, to report upon a complaint by the Province of Sind concerning injuries to it threatened by proposals of the Punjab, an upstream riparian, to impound and divert waters of tributaries of the Indus River. The Chairman of the Commission was Sir Benegal N. Rau, then a judge of the Calcutta High Court and later a member of the International Court of Justice; the other two members were engineers.

At the outset, the Commission proposed for comment by the parties certain general principles of law, and these were accepted unanimously by the primary disputants and the five other states and provinces which appeared in the proceedings. These principles are stated in the Commission's report, Volume I (pp. 10-11) 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 furnished 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 of 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.)

With respect to the last of these principles, the Commission added (p. 11):

> We may observe in passing that the ranking of different uses in a particular order of precedence depends on the circumstances of the river concerned. And even as regards the same river, different authorities may take different views.

In its final report, after considering the municipal law, both English and Indian, with respect to the rights of riparians, the Commission turned to the rights as between governments, pointing out first the advantages of disposing of such matters by agreement, and then coming to the matter of ascertaining rights in the absence of agreement. After referring to the Nile Commission which in 1926 had found "no generally adopted code or standard practice," and to Professor Smith's remark in 1930 that the law "is still in the making," the Commission undertook (pp. 32-47) an extensive examination of all of the United States cases up to that date (on which it had primarily rested its original statement of the law), and also referred (pp. 47-49) to decisions of the Swiss and German Courts (Smith, at 39, 54). It then turned to a consideration of the extent to which inundation canal irrigation, dependent as it was on the annual flooding of the river, was entitled to protection; and cited the Punjab's argument that such irrigation required wasting to the sea half the supplies of the rivers. The Commission observed (p. 52):

> There is, however, another side to the picture. Undoubtedly inundation canals are a wasteful anachronism and the sooner they are replaced by weir-controlled systems, the better. But many miles of such canals are still in existence (Sind has over 3,000 miles including distributaries) and large numbers of people have for generations depended upon them for their livelihood. It may be that they and their Province cannot yet afford to install a better and, in the beginning more expensive system of irrigation. In the meantime, are they to be deprived of their living, merely because an upper Province needs the water? If the upper Province wishes to take the water let it pay adequate compensation in cash or in kind.

The Commission concluded (p. 54) that "no new project, however beneficent in other ways, should be allowed to impair existing inundation canals without payment of compensation." Equally important is the implication that in other respects inundation canals are not to retard the progress of irrigation. It pointed out that a similar conclusion had been reached by the Nile Commission of 1925, which had recommended a gradual transition from flood irrigation on the lower Nile and a corresponding delay in the development of conservation works in the Sudan.

APPENDIX E

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 multi-purpose dam and is operating a hydro-electric 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) 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 Appendix C—Asia, *supra*, and 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 Ethiopia 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 [Sudan 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 Romania 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 are specific provisions 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 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 waters was grounded on the protection of existing uses. This was accepted by both Chile and Peru. (See Appendix B.) 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 (Text supplied by U.S. Dept. of State); Bolivia-Peru, 1957 (Information supplied by U.S. Dept. of State).

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].)

It is not meant to suggest that existing uses should be allowed to impose a strait jacket 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.

APPENDIX F

DECISION OF THE TRAIL SMELTER ARBITRAL TRIBUNAL, 35 A.J.I.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 A.J.I.L. 182.) 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 (p. 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. (Pp. 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 controveries 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. (P. 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. (P. 716.)

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PRINCIPLES OF LAW GOVERNING THE USE OF INTERNATIONAL RIVERS

I. EXCERPT FROM THE STATEMENT PRESENTED ON APRIL 21, 1958, TO THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS OF THE UNITED STATES SENATE BY DEPUTY ASSISTANT SECRETARY OF STATE FREDERICK W. JANDREY

II. PARTS VII AND VIII OF THE MEMORANDUM OF THE DEPARTMENT OF STATE ON THE LEGAL ASPECTS OF THE USE OF SYSTEMS OF INTERNATIONAL RIVERS

April, 1958

I. EXCERPT FROM THE STATEMENT TO THE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS OF THE UNITED STATES SENATE BY DEPUTY ASSISTANT SECRETARY OF STATE FREDERICK W. JANDREY

April 21, 1958

In accordance with your request we are submitting a memorandum regarding the legal issues which would be involved in the event the diversion in the Kootenay and Columbia River referred to above should be carried out by the Canadian authorities over the objections of the United States. There have been some indications that Canadian legal authorities believe these diversions could be made without violating any rights of the United States. Among other things, our memorandum deals with this view and points out that international law, as it has developed in this field in recent years, has solidified the principle of the equitable apportionment of waters which cross international boundaries. The fundamental doctrine concerned is, of course, that of not using one's own property rights to injure the property rights of others. We trust that the necessity of pursuing these legal questions with the Canadian Government may never arise, because we feel that they might tend to obscure the fundamental question of the achievement of cooperative development for optimum benefits. That, after all, is really the crux of the matter.

II. LEGAL ASPECTS OF THE USE OF SYSTEMS OF INTERNATIONAL WATERS

(Parts VII and VIII)

With Special Reference to the Columbia-Kootenay River System under the Treaty of 1909 and under Customary International Law

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Memorandum of the Department of State prepared by Mr. William L. Griffin, Attorney, Office of the Legal Adviser.

April 21, 1958

VII. The Use of Systems of International Waters under Customary International Law

That a state is sovereign, i.e., has exclusive jurisdiction or control within its boundaries, is an admitted doctrine of international relations. However, to the extent that sovereignty has come to imply that there is something inherent in the nature of states that makes it impossible for them to be subjected to law, it is a doctrine which is not supported by the facts of international relations. If sovereignty were not subject to international law, the result would be international anarchy.

The view that a state has under existing international law the sovereign legal right (as distinguished from physical power) to use as it chooses the parts of a system of international waters while within its territory, is tantamount to a view that there is no international law except treaty law—that a state

is subject only to such obligations as it has expressly agreed to. Under this view a state would have no legal obligations to its co-riparians with regard to a system of international waters, or any other matter, until it had become a party to treaties with them. That this view is false is demonstrated by the fact of international relations that sovereignty is restricted by principles accepted as customary international law, in accordance with which the International Court of Justice, or other international tribunal, would pronounce judgment.

"The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply: . . . (b) international custom, as evidence of a general practice accepted as law;"

It is accepted legal doctrine that the existence of customary rules of international law, i.e., of practices accepted as law, may be inferred from similar provisions in a number of treaties.[1]

Well over one hundred treaties which have governed or today govern systems of international waters have been entered into all over the world. These treaties indicate that there are principles limiting the power of states to use systems of international waters without regard to injurious effects on neighbouring states. These treaties restrict the freedom of action of at least one, and usually of both or all, of the signatories with regard to waters within their respective jurisdictions. The number of states parties to these treaties, their spread over both time and geography, and the fact that in these treaties similar problems are resolved in similar ways, make of these treaties persuasive evidence of law-creating international custom. A few of these treaties are discussed below.[2]

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[1] See, e.g. the Wimbledon case, P.C.I.J., Ser. A, No. 1, p. 25; Crichton v. Samos Navigation Co., ANNUAL DIGEST OF PUBLIC INTERNATIONAL LAW CASES, 1925-26, p. 3; STONE, LEGAL CONTROLS OF INTERNATIONAL CONFLICT, p. 135 (1954).

[2] Limitations of time and space make it impossible to discuss all these treaties, and some of those discussed here do not appear in existing collections. SMITH, H.A., THE ECONOMIC USES OF INTERNATIONAL RIVERS (1931) abstracts or summarizes 51 treaties from 1785 to 1930; the author is emeritus professor of international law at the University of London. SEVETTE, PIERRE, LEGAL ASPECTS OF HYDRO-ELECTRIC DEVELOPMENT OF RIVERS AND LAKES OF COMMON INTEREST (1952), U.N. Doc. E/ECE/136, summarizes some of the treaties collected by Smith and adds about 40 others; the author is

1. UNITED STATES-MEXICO: UPPER RIO GRANDE, 1906.[3]

In 1894 and 1895 the Mexican Minister protested to the Secretary of State against continued diversion of water from the Rio Grande in the United States in increasing amounts to the detriment of Mexican communities. He contended that international law formed a sufficient basis for the rights of Mexican inhabitants with regard to their prior uses. In a message to Congress on December 3, 1894, President Cleveland declared that the problem of the use of the Rio Grande for irrigation should be solved by appropriate concurrent action of the United States and Mexico.

Immediately after Attorney General Harmon submitted his opinion of December 1895[4] the Secretary of State and the Mexican Minister entered into correspondence and soon instructed the American and Mexican Commissioners on the International Boundary Commission, established under a treaty of 1889, to investigate and report on the Rio Grande situation. In a joint report submitted in November, 1896, the Commissioners declared that the only feasible method of regulating the use of the waters so as to secure to each country and its inhabitants their legal and equitable rights was to build a dam across the Rio Grande at El Paso. The Commissioners' report stated that Mexico had been wrongfully deprived for many years of its equitable rights and they recommended the matter be settled by a treaty dividing the use of the waters equally, Mexico to waive all claims for indemnity for the past unlawful use of water.

The Mexican Minister informed the Secretary of State in December 1896 that Mexico was prepared to enter into a treaty as recommended by the International Boundary Commission. The Secretary of State replied that the United States was embarrassed by reservoir dams already being built or planned.

Chief of the Power Section, Power and Steel Division of the Economic Commission for Europe. These two works will hereafter be cited as "Smith" and "ECE Report", respectively. Middle Eastern treaties on this subject are discussed in Hirsch, A.M., *Utilization of International Rivers in the Middle East*, 50 AM. J. INT. LAW 81 (1956). BERBER, F. J., DIE RECHTSQUELLEN DES INTERNATIONALEN WASSERNUTZUNGSRECHTS, pp. 39-44, (Munich, 1955) also contains an extensive summary of treaties on this subject.

[3] This and the following summary of United States-Mexico treaties is in part based upon Simsarian, J., *The Diversion of Waters Affecting the United States and Mexico*, 17 TEX. L. REV. 27 (1938).

[4] 21 OPS. ATTY-GEN. 278 (1895).

The International Boundary Commission report, while recommending a dam at El Paso, had stated that there was not also sufficient water for a dam at Elephant Butte, New Mexico, where a private company was already planning a dam. In view of insistent Mexican protests against the proposed dam at Elephant Butte, the Secretary of State inquired in January 1897 of the Secretary of War whether the private company had fulfilled federal statutory requirements. The result of this inquiry was that in May 1897 the United States Government instituted legal action to restrain construction of the Elephant Butte dam. After extended litigation the United States Supreme Court in 1909 affirmed a decree permanently enjoining this dam.

In the meantime in January 1901 the Mexican Ambassador again protested that Mexicans were being injured by diversions from the upper Rio Grande, and he said that he favored a treaty along the lines of a bill introduced in the Senate in March 1900 by Senator Culberson of Texas. This bill provided for the equitable distribution of Rio Grande waters between the two countries and the building of an international dam and reservoir at El Paso. In recommending to the Senate that the bill pass, the Committee on Foreign Relations reported that by its passage the Mexican claim for damages in excess of $35 million would be amicably adjusted and a feasible mode would be provided for regulating the use of the water so that each country and its inhabitants would receive their legal and equitable rights. However, this bill did not pass and in February 1905 Congress enacted a statute providing for a dam at Engle, New Mexico.

In reply to a Mexican protest that its rights were not recognized in the 1905 statute, the Department of State referred to the Harmon opinion but asserted that the question was academic because both governments had announced their intention to deal with the question on principles of highest equity and comity. In December 1905 Secretary Root submitted a treaty draft which was acceptable to Mexico substantially as proposed and which was signed May 21, 1906.[5]

In the Treaty of May 21, 1906, the United States agreed to deliver to Mexico in the bed of the Rio Grande 60,000 acre-feet annually in accordance with an annexed schedule, this delivery to be without cost to Mexico. Each Government preserved its formal legal position in a curious manner. The treaty recites that the delivery of water by the United States

[5] U.S. TREATY SER. 455, 34 STAT. 2953.

is not to be construed as recognition by the United States of any Mexican claim to such water, that the United States does not concede any legal basis for Mexican damage claims, and that the United States does not concede the establishment of any general principle or precedent by the concluding of the treaty. But nevertheless the treaty also recites that Mexico waives all past, present, and future Mexican claims arising from the diversion of water by United States citizens. Moreover, the draft treaty as proposed by Secretary Root contained a phrase that the United States' action in entering into the treaty "is prompted only by considerations of international comity", but this phrase was struck out of the treaty as signed.

2. UNITED STATES-MEXICO: LOWER RIO GRANDE, COLORADO, AND TIJUANA RIVERS, 1944.

The United States and Mexico each appointed three Commissioners who held their first meeting in February 1928 to study the equitable use of the waters of the lower Rio Grande, the Colorado, and Tijuana Rivers. In March 1930 the American Commissioners submitted a report recommending that the interests of the United States and Mexico would be served by a treaty determining the extent to which existing uses of the lower Rio Grande and the Colorado River were to be recognized and perpetuated.

In 1932 the activities of the International Water Commission were transferred to the International Boundary Commission. In 1935 the American member of the latter was authorized to cooperate with a representative of the Mexican Government in a further study of the equitable use of these three rivers to obtain additional information which might be used as a basis for the negotiation of a treaty.

The treaty was signed November 14, 1944.[6] Its principal provisions may be summarized as follows:

(1) The lower Rio Grande.

(a) The waters are allocated to the two countries in a specified manner.

(b) The two Governments agree to construct jointly certain works required for diversion, conservation, storage and regulation of the greatest quantity of the annual flow in a way to ensure the continuance of existing uses and the maximum development of feasible projects.

[6] U.S. TREATY SER. 994, 59 STAT. 1219.

(c) The cost of the diversionary works is prorated between the two Governments in proportion to the benefits which the respective countries receive therefrom.

(d) The costs of, and the power from, hydro-electric works are shared equally.

(2) The Colorado River.

(a) The United States agrees to deliver to Mexico a guaranteed annual flow of 1.5 million acre-feet in accordance with a specified schedule of monthly deliveries, and a specified share of any surplus water.

(b) Each Government agrees to construct and operate certain works at its own expense, certain others jointly in proportion to their use by each, while certain others shall be constructed and operated by the United States at Mexican expense.

(3) Joint study and investigation of the equitable distribution of the waters of the Tijuana River system.

When the treaty came before the Senate Committee on Foreign Relations, one of its opponents testified that he would not undertake to say what was the international law of Sweden, South Africa or any other country, but that Attorney General Harmon's opinion was a correct statement of international law as practiced by the United States. With regard to this testimony Mr. B. M. English, an assistant to the Legal Adviser of the Department of State, testified as follows:

> . . . It seems obvious, I think, that if there is any international law dealing with the subject of allocation of international streams, that law is necessarily the same for every nation, whether the United States, Mexico, Sweden, or South Africa.
>
> As for the Harmon opinion, the conclusion reached therein that from the standpoint of international law Mexico was entitled to no waters of the Rio Grande was apparently based primarily on language used by the Supreme Court in the celebrated Schooner Exchange Case, to the effect that the jurisdiction of a nation within its own territory is necessarily exclusive and absolute and susceptible of only self-imposed limitations. It may be well to point out that that case did not deal with the question of allocation of waters of international rivers or with the alleged right of one State through which such a river flows to do as it saw fit with the waters, or any other related subject. The sole question before the court was whether the courts of the United States had jurisdiction over a vessel of a foreign government while wholly within the territorial limits of the United States.[7]

Mr. English summarized his testimony as follows:

> Second, the contention that . . . 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.[8]

Assistant Secretary of State, Dean Acheson, testified in part as follows:

> . . . The logical conclusion of the legal argument of the opponents of the treaty appears to be that an upstream nation by unilateral act in its own territory can impinge upon the rights of a downstream nation; this is hardly the kind of legal doctrine that can be seriously urged in these times.[9]

Mr. Frank Clayton, Counsel for the United States section of the International Boundary Commission, testified in part as follows:

> . . . 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

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[7] *Hearings before Committee on Foreign Relations on Treaty with Mexico Relating to Utilization of Waters of Certain Rivers*, 79th Cong., 1st Sess. Pt. 5, pp. 1740-41 (1945).

[8] *Ibid.*, p. 1751.

[9] *Ibid.*, p. 1762.

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.[10]

3. SWEDEN-NORWAY: COMMON LAKES AND WATERCOURSES, 1905.

Article II. In accordance with the general principles of international law, it is understood that the works mentioned in Article I [diversions, raising or lowering of water levels] cannot be carried out in one of the two states without the consent of the other, in each case where such works, in influencing the waters situated in the other state, would have the effect either of noticeably impairing the use of a watercourse for navigation or floating of timber, or of otherwise bringing about serious changes in the waters of a region of a considerable area. [translation] [11]

4. EGYPT, SUDAN, ETHIOPIA, ITALY, GREAT BRITAIN: THE NILE.

The history of the Nile contains several treaties and statements by upper riparians recognizing Egypt's right to the flow necessary to maintain its established irrigation.

In 1891 Italy agreed with Great Britain "not to construct, on the Atbara, in view of irrigation, any work which might sensibly modify its flow into the Nile." [12]

In 1902 Ethiopia agreed with Great Britain "not to construct, or allow to be constructed, any work across the Blue Nile, Lake Tsana, or the Sobat, which would arrest the flow of their waters into the Nile, except in agreement with" the British and Sudanese Governments.[13] In 1906 a similar agreement was made with the Congo Free State concerning two tributaries of Lake Albert, a headwater of the White Nile.[14]

In 1925 the British High Commissioner in the Sudan assured the Egyptian Foreign Minister that the British Government "have no intention of trespassing upon the natural and

[10] *Hearings, supra*, Part 1, at 97-98.

[11] Smith, p. 167.

[12] Smith, p. 166.

[13] *Ibid.*, p. 166.

[14] *Ibid.*, p. 168.

historic rights of Egypt in the waters of the Nile, which they recognize today no less than in the past." [15] This assurance was repeated in an agreement of 1929, in which it was also 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." [16] In preparing for the negotiations which led to this agreement, the British Foreign Minister 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.[17]

In recent discussions of the proposed Aswan High Dam, the Sudanese Government has said: "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." [18] The Sudan fixes its "established right" at 4 billion cubic meters, and Egypt's at 48 billion.[19] The two Governments agree that new supplies if made available on the Nile must be apportioned equitably, but disagree on the basis of the equitable division.[20]

5. BRAZIL-URUGUAY: LEGAL STATUS OF THE FRONTIER, 1933.

Article 19. Each of the two States shall be entitled to dispose of half the water flowing in the frontier watercourses.

[15] BRIT. TREATY SER., No. 17, p. 33 (1929).

[16] Smith, pp. 212-14.

[17] Paper regarding negotiations for a treaty of alliance with Egypt, Egypt No. 1, Cmd. No. 3050, p. 31 (1928).

[18] THE NILE WATERS QUESTION, Min. of Irrigation and Hydro-Electric Power, Khartoum, p. 13 (1955).

[19] *Ibid.*, p. 5.

[20] *Ibid.*, pp. 36-41.

> Article 20. When there is a possibility that the installation of plant for the utilisation of the water may cause an appreciable and permanent alteration in the rate of flow of a watercourse running along or intersecting the frontier, the contracting State desirous of such utilisation shall not carry out the work necessary therefor until it has come to an agreement with the other State.[21]

6. DOMINICAN REPUBLIC-HAITI: TREATY OF PEACE, FRIENDSHIP, AND ARBITRATION, 1929.

This treaty, in addition to establishing arbitration procedures, provides:

> Article 10: 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.[22]

7. MULTILATERAL: CONVENTION OF GENEVA RELATING TO THE DEVELOPMENT OF HYDRAULIC POWER AFFECTING MORE THAN ONE STATE, 1923.

This convention was adopted by the Second International Conference of Communication and Transit held at Geneva in 1923. The treaty was entered into by Austria, Belgium, British Empire, Brazil, Chile, Denmark, Free City of Danzig, France, Greece, Hungary, Italy, Lithuania, Poland, Yugoslavia, Thailand (Siam) and Uruguay. It has been ratified or adhered to by: Great Britain, Denmark, Greece, New Zealand, Thailand (Siam), Newfoundland, Hungary, Iraq, Panama, and Danzig.

That limitations are acknowledged to be imposed by existing international law appears unequivocally from the statement in Article I that states are free to carry out in their territory operations for the development of hydraulic power "within the limits of international law". The convention also

[21] 181 L.N.T.S. 85-87.

[22] 105 L.N.T.S. 223.

prescribes joint studies in order to arrive at solutions most favorable to the interests of the states concerned as a whole. Projected works are to give due regard to existing works, and those under construction or already projected. Construction by upper riparians is subject to the principle of reasonableness and to agreement whenever a state "desires to carry out operations . . . which might cause serious prejudice".

The Indus (Rau) Commission[23] said that if this convention may be regarded as typical, "it would seem to be an international recognition of the general principle that inter-State rivers are for the general benefit of all the States through which they flow irrespective of political frontiers." [24]

The important substantive provisions of the convention are as follows: [25]

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 terri-

[23] Discussed below, p. 32.

[24] I REPORT OF THE INDUS COMM., p. 22 (1942).

[25] 36 L.N.T.S. 77.

tory 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 12.

If a dispute arises between Contracting States as to the application 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.

* * * *

A protocol added to the convention reads as follows:

The provisions of the Convention do not in any way modify the responsibility or obligations, imposed on States, as regards injury done by the construction of works for development of hydraulic power, by the rules of international law.

The present Protocol will have the same force, effect and duration as the Convention of today's date, of which it is to be considered as an integral part.

8. MULTILATERAL: DECLARATION OF THE SEVENTH INTERNATIONAL CONFERENCE OF AMERICAN STATES, 1933.

This Conference had before it a report of a Fifth Sub-Committee on Industrial and Agricultural Uses of International Rivers which associated "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 jurisdictional states of the same waters." [26] The Uruguayan delegate who wrote this report stated during the discussions that the principles of the Declaration were believed to be in current legal practice and have been observed by Brazil, whose river network covers the greater part of South America, as well as by Argentina and by his own country.

The Mexican delegation made a general reservation to the Declaration, but during committee discussions the Mexican delegate stated he did not wish to discourage approval by the committee.[27]

The United States delegation made a reservation as follows: [28]

> The Delegation of the United States of America, believing that the Declaration . . . is not sufficiently compresensive in scope to be properly applicable to the particular problems involved in the adjustment of its rights in the international rivers in which it is interested, refrain from giving approval to such declaration.

The complete text of the Declaration is as follows: [29]

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

[26] FIRST, SECOND AND EIGHTH COMMITTEE, MINUTES AND ANTECEDENTS, p. 178 (1933).

[27] *Ibid.*, p. 146.

[28] 28 A.J.I.L., Supp. 60 (1934).

[29] *Ibid.*, 59-60.

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 members shall act within a period of six months, and if within this period no agreement has been reached, the members 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 Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply: . . . (c) the general principles of law recognized by civilized nations;"

In numerous cases international courts have referred to general principles of law as a source of international law and have invoked them as a basis for their decisions.[30]

The consistent pattern of the practice of states in entering into agreements concerning uses of systems of international waters may itself be regarded as recognition of the existence of general principles of law in that regard. Thus the ECE Report,[31] while conceding that treaties "do not necessarily express a national principle or reflect customary practice," states that:

> 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.

[30] The cases are collected in CHENG, GEN. PRINS. OF LAW AS APPLIED BY INT. CTS. AND TRIBS. (1953).

[31] Pp. 204-5.

In 1862 the Netherlands Government stated in a letter to its ministers in London and Paris 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.[32]

Professor Sauser-Hall, after reviewing the domestic law of the United States, Switzerland, Italy, Germany and France, concludes that a generally recognized principle is: "no diversion of a stream which is of a character to strongly prejudice other riparians or communities whose territories are bordered by or traversed by the same stream."[33] His view is that this principle is a contribution by analogy of domestic law to international law.

Professor Lauterpacht, now a judge of the International Court of Justice, expresses the following view:

> The responsibility of a State may become involved as the result of an abuse of a right enjoyed by virtue of International Law. This occurs when a State avails itself of its right in an arbitrary manner in such a way as to inflict upon another State an injury which cannot be justified by a legitimate consideration of its own advantage . . . The duty of the State not to interfere with the flow of a river to the detriment of other riparian States has its source in the same principle. The maxim, *sic utere tuo ut alienum non laedas* [so use your own as not to injure another's property], is applicable to relations of States no less than to those of individuals; it underlies a substantial part of the law of torts in English law and the corresponding branches of other systems of law; it is one of those general principles of law recognized by civilised States which the Permanent Court is bound to apply by virtue of Article 38 of its Statute.[34]

"The Court, whose function is to decide in accordance with international law such disputes as are submitted

[32] Smith, p. 217.

[33] *L'Utilisation Industrielle des Fleuves Internationaux*, 83 RECUEIL DES COURS 517, Hague Academy (1953).

[34] I OPPENHEIM'S INTERNATIONAL LAW, LAUTERPACHT, pp. 345-47, 8th ed. (1955).

to it, shall apply . . . (d) . . . judicial decisions . . . as subsidiary means for the determination of rules of law;"

1. INTERNATIONAL JUDICIAL DECISIONS

Several international arbitral awards have recognized the existence of the duty of a state in the exercise of its territorial sovereignty to prevent its territory being used in a manner causing injury to another state. No international decision supporting any purported principle of absolute sovereignty has been found.

(1) Afghanistan-Iran (Persia): Helmand River, 1872

The award of Sir Frederick Goldsmid in this case provided 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." [35]

(2) Ecuador-Peru: Zarumilla River, 1945

An arbitral award rendered by the Chancellery of Brazil ("Aranha formula"), accepted by the two Governments, states:

> Peru undertakes, within three years, to divert a part of the Zarumilla River so that it may run in the old bed, so as to guarantee the necessary aid for the subsistence of the Ecuadorian populations located along its banks, thus ensuring Ecuador the co-dominion over the waters in accordance with international practice. (Trans.)[36]

(3) Canada-United States: Air pollution, 1941

By a Convention of 1935 between the United States and Canada,[37] 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 Quebec, and Jan Frans Hostie of Belgium.

[35] I ST. JOHN, LOVETT AND SMITH, EASTERN PERSIA: AN ACCOUNT OF THE JOURNEYS OF THE PERSIAN BOUNDARY COMMISSION, 1870-71-72, Appendix B (1876).

[36] INFORME DEL MINISTRO DE LAS RELACIONES EXTERIORES A LA NACIÓN, p. 623 (Quito, 1946).

[37] U. S. TREATY SER. 893, 49 STAT. 3245, IV TRENWITH 4009.

By the convention Canada conceded liability for past injuries, and the tribunal first undertook to assess such damages. With respect to the future the tribunal deemed itself required by the Convention to determine to what extent, if any, the smelter should be required to refrain from causing damage in the State of Washington. The tribunal specifically posed the question whether it was to apply the law of the United States or international law, and concluded that it need not answer the question because,

> 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.[38]

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.[39]

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 con-

[38] 35 A.J.I.L. 684, 713 (1941).

[39] *Ibid.*, p. 714.

clusions, 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 or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.[40]

In the conclusion of this portion of its decision the tribunal stated:

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.[41]

2. "Quasi-International" Judicial Decisions

It is the consensus of international legal authorities that the decisions of national courts and commissions are valuable sources of international law in analagous situations. As Professor Lauterpacht has stated, custom being the sum total of the acts of states showing a concordance sufficient to establish a given principle as being accepted as law, the analogy of decisions of domestic tribunals should be considered because they are "acts" of states. Moreover, there is no reason to believe that the inclusion in Article 38(d) of the Statute of the Permanent Court of International Justice of "judicial decisions" as subsidiary means for determining rules of international law, was meant to refer only to decisions of international tribunals.[42] In addition, there is no reason to believe that opinions of municipal tribunals may not be regarded as the "teachings" of qualified publicists under Article 38(d).

(1) Switzerland

As early as 1878 the Swiss Federal Tribunal made an approach to the problem of water rights from a standpoint similar to that required under international law. This involved

[40] *Ibid.*, p. 716.

[41] *Ibid.*, pp. 716-17.

[42] Lauterpacht, *Decisions of Municipal Courts as a Source of International Law*, X Brit. Yearbook International Law 65 (1929).

a case which had begun as litigation between private parties but at a later stage was given a quasi-international character by the intervention of two Cantons. A private firm in Zurich Canton built a dam for power development, which reduced the flow downstream in Aargau Canton. Zurich had enacted a law permitting erection of dams provided that loss to others was prevented by compensating works or that the parties reached an agreement, but Aargau took the case to the Federal Tribunal. The court dismissed the action on the ground that Aargau's right to a reasonable share of the flow was not infringed because the Zurich statute made equitable provision for the protection of riparian owners by means of a deposit for the construction of remedial works in Aargau.

In its decision the starting point of the court's reasoning was the equality of the Cantons, by virtue of which no Canton might exercise its sovereign rights in such a way as to affect the sovereign rights of another Canton. In the case of public waters which extend over several Cantons, it followed from the equality of the Cantons that none of them might take such measures upon its territory as might cause prejudice to the others.[43]

(2) Italy[44]

By a convention of 1914, France and Italy had provided for joint regulation of the use of the waters of the river Roji, which flows partly in each country. Article I of the convention provided that the parties would mutually refrain from using the hydraulic power of the river or its tributaries in their respective jurisdiction in such a way as to lead to "a noticeable modification of the existing régime and of the natural flow of the water in the territory of the lower riparian State". A permanent international commission was set up by the convention to apply the principles therein agreed to.

Plaintiffs, alleging that new power plants erected by defendants on Italian territory had adversely affected their rights in the Roji, recovered a judgment (damages for breach of a private contract referred to in the convention) in the French courts.

[43] Smith, p. 104. See also Schindler in XV A.J.I.L. 149, 160, 170 (1921).

[44] Société Énergie Électrique du Littoral Méditerranéen v. Compagnia Imprese Elettriche Liguri (Decision of Italian Court of Cassation, February 13, 1939), Annual Digest of Public International Law Cases (Lauterpacht) 1938-40, No. 47.

The present suit in the Italian courts was based on the French judgment (under another convention giving the judgments of the courts of either country the effect of res judicata in the other).

The Court of Appeals of Genoa refused to recognize the effect of the French judgment and was affirmed by the Court of Cassation.

The Court pointed out that since the activities of the defendants could not have been carried on but by authorization of the Italian government, the French suit had in effect been an attempt to implead a foreign state, a matter beyond the competence of a national court. As an alternative ground of decision the court held that the treaty had destroyed the efficacy, as between private parties, of the contract relied on by plaintiffs; and, by setting up an international commission, had in any event ousted the jurisdiction of the ordinary courts.

In holding that the treaty had these effects on the controversy, the court discussed in general terms the rules of law applicable to international rivers:

> International law recognises 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 régime it deems best, it cannot disregard the international duty, derived from that principle, not to impede or to destroy, as a result of this régime, the opportunity of the other States to avail themselves of the flow of water for their own national needs.

The court went on to show that the conflict between the rights of sovereignty and the duty of respecting the rights of other riparian states was generally settled by means of treaties—as evidenced by such navigation treaties as those affecting the Rhine, the Scheldt, the Elbe, and the Danube. These, the court said, illustrate "the principle of solidarity among States in the enjoyment of the important common sources of wealth."

(3) Germany[45]

[45] Wuerttemberg and Prussia v. Baden (The Donauversinkung Case, German Staatsgerichtshof, June 18, 1927), ANNUAL DIGEST OF PUBLIC INTERNATIONAL LAW CASES (Lauterpacht), 1927-28, p. 128.

Between one point in Baden and another point in Wuerttemberg the Danube dries up during certain periods of the year. The reason for this is that the geological composition of the river bed is chalky and as a result large quantities of water sink through crevices and after passing through underground passages which run in a southerly direction, these same waters emerge as the head waters of the river Aach in Baden and pass along its short channel to Lake Constance.

This natural phenomenon gave rise to a legal controversy between Baden and Wuerttemberg. Wuerttemberg sought an injunction restraining Baden from constructing and maintaining dams and a water-power plant near Immendingen which intensified the sinking of the Danube by forcing the stream of water in the direction of the Aach. In addition, Wuerttemberg asked that Baden remove natural obstacles in the stream near Moehringen which impede the flow of water.

Baden, on the other hand, asked that Wuerttemberg be enjoined from constructing certain works near Fridingen which were calculated to prevent the natural flow of water to the Aach.

The court declared that it was bound to apply international law as between members of the German Federation in matters such as this where they acted as independent communities.

The court said that international law restricts the territorial sovereignty of states, and considered that this fact gave rise to a duty not to injure one another. The court then added:

> International law contains no express rules relating to a situation such as that with which the Court is confronted in the present case. A natural phenomenon of this kind takes place so seldom that no special rules of international law have evolved in this matter. Accordingly, one has to fall back upon the general principles of international law concerning the flow of international rivers as distinguished from boundary rivers. The exercise of sovereign rights by every State in regard to international rivers traversing its territory is limited by the duty not to injure the interest of other members of the international community. Due consideration must be given to one another by States through whose territories there flows an international river. No State may substantially impair the natural use of the flow of such a river by its neighbor. This principle has gained increased recognition in international relations, in particular in modern times when the increased exploitation of the natural power of flowing water has led to a contractual regulation of the interests of States connected by international rivers. The application of this principle is governed by the circumstances of each par-

> ticular case. The interests of the States in question must be weighed in an equitable manner against one another. One must consider not only the absolute injury caused to the neighboring State, but also the relation of the advantage gained by one to the injury caused to the other.

(4) The United States

Several cases have come before the United States Supreme Court involving the diversion of waters by one or more states to the injury of one or more other states. Only a few of them can be noted here.

(a) *Kansas* v. *Colorado*

Kansas in 1901 sought a decree to restrain Colorado from diversion of the Arkansas River to the injury of Kansas. Colorado by its legislation followed the rule that priority of appropriation for beneficial use governed the allocation of available water. Kansas law followed the rule of equitable apportionment even as between junior and senior prior appropriations. In reply to the complaint of Kansas, Colorado demurred, contended that, as a sovereign and independent state, it was justified, if in its judgment its geographical situation and material welfare so demanded, in consuming for beneficial purposes all the waters within its territory, and that since the sources of the Arkansas River are in Colorado, it might wholly deprive Kansas and its citizens of the water. The court overruled the demurrer, reserving judgment on Colorado's argument, and requiring it to answer the complaint so that all the facts of the case would appear in the evidence presented to the court.[46] In the course of its opinion 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.[47]

In its final decision in 1907 the court dismissed the complaint of Kansas, but it also rejected the argument of Colorado. The court found that diversions in Colorado had caused some detriment in Kansas. But the court weighed this detriment against the benefit to Colorado, and declared that equality of right and equity between the two states forbade any interference with existing diversions in Colorado. The court stated

[46] 185 U.S. 125 (1902).

[47] *Ibid.*, p. 146.

that Kansas could institute new proceedings wherever it appeared that through material increase of diversion in Colorado substantial interests of Kansas were being injured to the extent of destroying the equitable apportionment of benefits between the two states.[48]

(b) *Wyoming* v. *Colorado*

In 1911 Wyoming instituted proceedings to restrain Colorado, and two Colorado corporations, from a proposed diversion from the Laramie River to another watershed in Colorado. The proposed diversion threatened to deprive Wyoming of water it had been using for some time. The law of both states followed the prior appropriation rule in regard to waters within their own borders.

In its argument[49] Colorado expressly relied upon the opinion of Attorney General Harmon,[50] which argument the court disposed of as follows:

> 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, cannot 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.[51]

The court divided the waters in accordance with seniority of appropriation for beneficial use without regard to the boundary between the two states.

(c) *Nebraska* v. *Wyoming*

In this case[52] the controversy concerned the use of water from the North Platte River, Nebraska alleging that diversions in Wyoming and Colorado were in violation of the rule of priority of appropriation in force in all three States and depriving Nebraska of water to which it was equitably entitled.

[48] 206 U.S. 46 (1907).

[49] Brief in 259 U.S. 419, 437-38 (1922).

[50] 21 OPS. ATTY.-GEN. 278 (1895).

[51] 259 U.S. 419, 466 (1922).

[52] 325 U.S. 589 (1945).

The court applied the equitable apportionment rule, stating:

> That does not mean that there must be a literal application of the priority rule. We stated in *Colorado* v. *Kansas*, supra, that in determining whether one State is "using, or threatening to use, more than its equitable share of the benefits of a stream, all the factors which create equities in favor of one State or the other must be weighed as of the date when the controversy is mooted." (320 U.S. p. 394). The case did not involve a controversy between two appropriation States. But if an allocation between appropriation States is to be just and equitable, strict adherence to the priority rule may not be possible. For example, the economy of a region may have been established on the basis of junior appropriations. So far as possible those established uses should be protected though strict application of the priority rule might jeopardize them. Apportionment calls for the exercise of an informed judgment on a consideration of many factors. Priority of appropriation is the guiding principle. But physical and climatic conditions, the consumptive use of water in the several sections of the river, the character and rate of return flows, the extent of established uses, the availability of storage water, the practical effect of wasteful uses on downstream areas, the damage to upstream areas as compared to the benefits to downstream areas if a limitation is imposed on the former—these are all relevant factors. They are merely an illustrative, not an exhaustive catalogue. They indicate the nature of the problem of apportionment and the delicate adjustment of interests which must be made.

(5) The Indian Sub-Continent[53]

Prior to the partition of the Indian Sub-Continent it was divided into British India and the Indian States. British India was divided into Provinces. The Indian States were internally independent of British India, having their own laws and courts, but by treaty were under the suzerainty of the British Crown as to foreign affairs.

From 1858 to 1921 all irrigation matters in the Provinces were under the authority of the Secretary of State for India, a British Cabinet Minister. Irrigation matters in the States

[53] Except as otherwise indicated, the account which follows is based on a note by Manzur Qadir, Barrister-At-Law (Lincoln's Inn), Senior Advocate, Supreme Court of Pakistan. Mr. Qadir's note appears in PRINCIPLES OF LAW GOVERNING THE USES OF INTERNATIONAL RIVERS, Library of Congress Cat. Card No. 57-10830, background material prepared for the Conference of the International Law Association, held at Dubrovnik, Yugoslavia, 1956.

were under the authority of their rulers. Since the British Crown headed the foreign affairs of the States, differences among them and the Provinces were resolved by the Secretary of State for India.

In 1865 the Secretary of State for India established the basis for the construction of new irrigation projects as follows:

> . . . the only project which should be entertained by the Government of India is the best that can be devised irrespective of the territorial boundaries of the British and foreign states, in the benefits of which the native States should be allowed to participate on like terms with our own subjects.

Disputes with respect to two river systems of the Indian Sub-Continent are particularly illuminating:

(a) *The Indus System*

In 1897 the Government directed that the Montgomery Canal Project (irrigation) for the Sutlej River not be put into effect without providing for the "legitimate claim" to irrigation water made by the State of Bahawalpur, a lower riparian. In 1903 the project was postponed upon recommendation of a Commission that additional study should be made of the claims of "existing irrigation" in several of the lower riparian Provinces and States.

In 1918 representatives of a Province and of two States met to arrive at a distribution of water of the Sutlej River, part of the Indus system. The Chairman of the meeting and representative of the Government of India, Sir Claude Hill, suggested the following basic principle, which was accepted:

> That in considering the method of disposing of the waters made available for irrigation by the Sutlej Valley Project, the general principle is recognized that these waters should be distributed in the best interests of the public at large, irrespective of Provincial or State boundaries, subject always to the proviso that established rights are fully safeguarded or compensated for, and that full and prior recognition is given to the claims of riparian owners, and that their rights in the existing supplies or in any supplies which may hereafter be made available in the Sutlej river below the junction of the Beas and Upper Sutlej are fully investigated and are limited only by the economic factor.

In 1935 there was created by statutory authority the Indus (Anderson) Committee to deal with allocation of water among States and Provinces asserting rights in the waters of the

Indus Basin. Representatives of each of these Governments were appointed to the Committee. The principle by which the Committee was guided, and in which all its members concurred, was stated as follows:

> . . . that in allocating water, the greatest good to the greatest number must be sought without reference to political boundaries.

Throughout its deliberations the Committee recognized that the 1865 order, which it cited, had established a basic principle for the sharing of waters. The allocations of water adopted by the Committee were approved in orders issued by the Government of India affirming the principle of equitable apportionment of Indus Basin waters and that allocation agreements and awards are binding until replaced by new agreement or awards. None of the participants in these proceedings ever protested the detailed allocations of water made by the Committee, but one State did condition its acceptance of allocations on the speedy construction of certain projects to its benefit.

In 1937 authority over irrigation was transferred to the Provinces pursuant to the Government of India Act of 1935. Differences between Provinces and States were to be resolved by the central authority acting upon the advice of independent commissions. In 1939 Sind Province brought a complaint under the 1935 Act on the ground that new diversions contemplated in Punjab Province would impair existing uses in Sind. A Commission was established to hear the dispute, and other interested States and Provinces were made parties and submitted their views. This Commission, officially termed the Indus Commission, came to be known as the Rau Commission after the name of its Chairman, Sir Benegal N. Rau, later a judge of the International Court of Justice.

The first action of the Rau Commission was to formulate a statement of principles of law governing the rights of States and Provinces with respect to the waters. The participants were invited to comment upon these principles, and after study, all of the participants accepted them and they were again enunciated in the final report of the Commission.

The 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).[54]

These principles, and the results of the Commission's deliberations, were subsequently followed in the negotiations leading to an agreement that was to govern future allocation of waters between the parties. This agreement never came into full effect because of the partition of the Sub-Continent before certain financial differences were resolved.

(b) *The Deccan System*

In 1892, the British Indian Province of Madras and the State of Mysore, after a dispute as to their respective rights, agreed to certain rules regulating the uses of the waters of the thir-

[54] REPORT OF THE INDUS (RAU) COMMISSION 10-11 (1942).

teen rivers in which Mysore had claimed superior rights as an upper riparian state. These rules speak for themselves:

> Rules defining the limits within which no new Irrigation works are to be constructed by the Mysore State without previous reference to the Madras Government, 1892.
>
> Rule 1. [definition of "new irrigation work".]
>
> Rule 2. The Mysore Government shall not, without the previous consent of Madras Government or before a decision under Rule 4 below build: (a) any "New Irrigation Reservoirs" across any part of the thirteen main rivers . . . or across any stream . . . (below certain specified points) or in any drainage area . . . (below certain specified points), or (b) any new anikat across the minor (specified) streams . . . or across any (other specified) streams or across (certain specified) major streams . . . lower than (specified) points . . ..
>
> Rule 3. When the Mysore Government desires to construct any "New Irrigation Reservoir" or any new anikat requiring the previous consent of the Madras Government under the last preceding Rule, then full information regarding the proposed works shall be forwarded to the Madras Government, and the consent of that Government shall be obtained previous to the commencement of the work. The Madras Government shall be bound not to refuse such consent except for the protection of prescriptive right already acquired and actually existing, the existence, extent and nature of such right, and the mode of exercising it being in every case determined in accordance with law on the subject of prescriptive right to use of water and in accordance with what is fair and reasonable under all the circumstances of each individual case.
>
> Rule 4. Should there arise a difference of opinion between the Madras and Mysore Governments in any case in which the consent of the former is applied for under the last preceding Rule, the same shall be referred to the final decision either of arbitrators appointed by both Governments or of the Government of India.
>
> Rule 5. (After reciting that the consent to certain new irrigation works had been given, this rule went on to provide) "Should, owing to the omission of Mysore Government to make or maintain these works in a reasonably adequate standard of safety, irrigation works in Madras be damaged, the Mysore Government shall pay to the Madras Government reasonable compensation for such damage."
>
> Rule 6. The foregoing rules shall apply as far as may be to the Madras Government as regards streams flowing through British territory into Mysore.

Appended to these rules was a detailed procedure, based on engineering technicalities, for securing an equitable apportionment of the waters concerned.

A further dispute having arisen, the matter was referred to arbitration. The arbitrators' award was given in 1914, in accordance with the agreed rules quoted above.

> *"The Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply . . . (d) . . . the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law;"*

1. Individual Publicists

It is remarkable that only a few of the publicists who have considered this subject maintain the view that riparians have unlimited sovereign rights to use at will the waters in their territory, and that the great majority of them come to the conclusion that the essence of international law upon the matter is the principle of mutual rights and obligations between co-riparians in their uses of systems of international waters, and, in the event of competing uses, equitable apportionment of the waters or of their benefits.

Berber[55] characterizes the view of absolute territorial sovereignty as

> based upon an individualistic, anarchical conception of international law, in which selfish interests are exclusively taken as the rule of conduct and no solution is offered regarding the opposite interests of upper and lower riparians. (Trans.)[56]

Andrassy, in lectures at the Hague Academy of International Law, made a detailed analysis of the studies of publicists, and concludes that international law does impose obligations on co-riparians.[57] Andrassy has also reviewed the position of the few publicists supporting the view of absolute sovereign rights.[58] He disagrees and affirms the existence of

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[55] *Loc. cit.*, p. 104, note 2 *supra.*

[56] *Ibid.*, p. 15.

[57] *Les Relations Internationales de Voisinage*, 79 Recueil des Cours 104 (1951).

[58] Utilisation Des Eaux Internationales Non Maritimes (En Dehors de la Navigation), Institut de Droit International (1957).

principles in limitation of sovereignty. The alleged principle of absolute sovereignty has never been acted upon by any state and must be relegated to the realm of abstraction.

Sauser-Hall's lectures at the Hague Academy of International Law have been referred to above in connection with general principles of law.[59] He also 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." (Trans.)[60]

Lauterpacht, in addition to his views quoted above in regard to general principles of law, also says:

> Like independence, territorial supremacy does not give an unlimited liberty of action. . . . A State, in spite of its territorial supremacy, is not allowed to alter the natural conditions of its own territory to the disadvantage of the natural conditions of the territory of a neighbouring State—for instance, to stop or to divert the flow of a river which runs from its own into neighbouring territory.[61]
>
> But the flow of not-national, boundary and international rivers is not within the arbitrary power of one of the riparian States, for it is a rule of International Law that no State is allowed to alter the natural condition of its own territory to the disadvantage of the natural conditions of the territory of a neighbouring State. For this reason a State is not only forbidden to stop or divert the flow of a river which runs from its own to a neighbouring State, but likewise to make such use of the water of the river as either causes danger to the neighbouring State or prevents it from making proper use of the flow of the river on its part.[62]
>
> As regards the utilisation of the flow of [international] lakes . . . , the position is the same as with regard to the utilisation of the flow of rivers.[63]

Brierly[64] 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 a river system considered as a whole, and to have its own interests weighed in the balance against those of other states; and that no one 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. This principle of the "equitable apportionment" of all the benefits of the river system between all the states concerned is clearly not a single problem which can be solved by the formulation of rules applicable to rivers in general; each river has its own problems and needs a system of rules and administration adopted to meet them. The way of advance seems therefore to lie, as Professor Smith suggests, in the constitution of authorities to administer the benefits of particular river systems.

[59] P. 21.

[60] *Loc. cit.*, p. 474.

[61] *Loc. cit.*, pp. 290-91.

[62] *Loc. cit.*, pp. 474-75.

[63] *Loc. cit.*, p. 477, n. 2.

[64] THE LAW OF NATIONS, pp. 204-205, 5th ed. (1955).

Latin American publicists are also in accord with the basic principles of mutual rights and duties of co-riparians of a system of international waters. Typical of their views are the remarks of Professor Cardona of Mexico:

> The internationality of river basins presupposes a combination of rights and duties that are common to the neighboring states. . . . It follows that the legal order that governs this combination of rights and duties affects the exercise of the territorial sovereignty of each state over its own territory.
>
> The principle applicable to this order, and one which is amply recognized in international law, is that a state may exercise its rights of territorial sovereignty in the form and to the degree that it deems desirable but on the condition that it does not impair the right of a neighboring state. (Trans.)

Professor Cardona's conclusion is that international law imposes a "just distribution of the uses between the two parties" on the basis of present and future needs.[65]

The ECE Report[66] summarizes the views of twenty-five publicists of the 19th and 20th centuries, only one of whom, viz., Lauterpacht, is referred to above. The Report finds that only three, or possibly four, of them maintained the view that riparians have unlimited sovereign rights to use at will the waters in their territory. The Report, upon the basis of its study of the various sources of international law, expresses its own conclusions as follows:[67]

[65] *El Régimen Jurídico de los Rios Internacionales.* 56 REVISTA DE DERECHO INTERNACIONAL, pp. 24, 26 (La Habana, No. 111, 1949).

[66] Pp. 51-68.

[67] Pp. 209-213.

CONCLUSIONS

The purpose of this study, it need hardly be repeated, is primarily to supply the various governments with full and impartial documentation on a particular and important problem of public international law.

It is in that spirit that we shall attempt to select certain common principles derived from the preceding study.

We have found that when a waterway crosses two or more territories in succession, each of the States concerned possesses righs of sovereignty and ownership over the section flowing through its territory. The same applies to frontier waterways. Each state possesses equal rights on either side of the boundary line.

However, hydro-electric development works carried out by a riparian State may adversely affect the other riparian State.

Within what limits and under what conditions can such developments be carried out?

None of the theories elaborated to limit the sovereignty of a State can well withstand critical analysis. Such sovereignty exists and it is absolute. Each riparian State has a right of ownership over the section of the waterway which traverses it, and this right restricts the freedom of action of the others. Nevertheless, the fact that each State is obliged to respect the right of ownership of the other States in no way impairs its sovereign power. On the contrary this power resolves itself into the consent which the State may give for the execution of the works, and finds expression in the agreement.

It is found in practice that such agreement is the rule when a riparian State may be adversely affected by any alteration made to the hydraulic system by another riparian State.

Physically, a waterway constitutes an indivisible unit. Political frontiers, which change from time to time with historical events, may alter the apportionment of rivers, but the latter still follow their unchanging course. Moreover, waterways have a natural mission to perform; that of serving the interests of the commonalty of mankind. It is difficult to establish priorities among these interests, and consequently difficult to classify the uses to which the waterways can be put. The intrinsic importance of each of them is a part of this difficulty, and the advancement of the common weal implies to some extent the development of the use of waterways.

This idea of community of interests and of equity and international comity should faciliate the conclusion of the necessary agreements.

In the particular case of hydro-electric development, it is no use concealing the fact that difficulties may arise

varying according to the interests at stake. The relative importance of the latter are completely different for any given State according as it is situated downstream or upstream. The absolute value of the injury likewise varies considerably.

Hence the following principles would appear to emerge from the foregoing:

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 neighbourly relations.

On the oher hand, when the injury liable to be caused is serious and lasting, development works may only be undertaken under a prior agreement.

Conversely, a State has no right to oppose the hydro-electric development of a section of an international waterway situated in the territory of another State if this will entail only slight injury to itself. In the event of serious injury, the States concerned should enter into negotiations and supply each other in advance with all the information necessary for the execution of the projects in hand.

Is it possible, however, to establish a criterion as a basis for the distinction between slight and serious injury?

* * * *

. . . The truth is that it is impossible to lay down any hard and fast principle; only appraisement of the injury inflicted in concrete cases can determine how serious it is. But since a formula must be found, that of good neighbourly relations will be retained.

The concept of injury in international law is very complex indeed. It is difficult to set an absolute limit beyond which the injury is sufficient to provide legitimate grounds for opposing the action taken by another State.

Should the criterion for a distinction be sought in the absolute value of the development works to be carried out, i.e., the international economic advantages they represent, or rather in the extent of the modification caused to the "essential and utilizable" character of the waterway; or finally—which would seem preferable—in the relative value of this modification in relation to the utility of the development?

If a slight injury is to be taken into account, the danger is that a State may for a trivial reason refuse to take part in the necessary development. The limit therefore depends on the good will of States, on their readiness to negotiate and on the good relations between them. And if they sustain slight injury as a result of good neighbourly relations, that merely gives them the right to take

part in the negotiations in order to claim fair compensation.

In studying the additional clauses we have seen examples of this compensation for injury being made in the form of power supplies. We have also seen the considerable extent to which these negotiations, essential in the case of hydroelectric development, are facilitated by the appointment for that purpose of a joint commission composed of technicians.

* * * *

2. Associations of International Lawyers

No summary of the views of publicists would be complete without reference to the work at the international level of private associations of international lawyers.

(1) The Institut de Droit International

The Institut at its meeting in 1910 had before it a motion with the object of "determining the rules of international law relating to international rivers from the point of view of the utilisation of their energy." This motion was carried and Professor von Bar of Göttingen University was asked to present a report on the subject at the next meeting of the Institut in Madrid in 1911.[68] The report was not confined to hydroelectric uses, but included "general exploitation" as well.[69]

The text as adopted is preceded by general considerations which affirm that the physical interdependence of riparians excludes the absolute autonomy of any one riparian in the exploitation of a system of international waters. These rules, the text of which follows, greatly influenced the substance of many subsequent treaties.

Madrid Declaration

INTERNATIONAL REGULATIONS REGARDING THE USE OF INTERNATIONAL WATERCOURSES FOR PURPOSES OTHER THAN NAVIGATION, ADOPTED BY THE INSTITUTE OF INTERNATIONAL LAW AT MADRID, APRIL 20th, 1911.

I. When a stream forms the frontier of two States, neither of these States may, without the consent of the

[68] ECE Report, p. 46.

[69] The report is published in the Institut's Annuaire, vol. 24, p. 170 (1911).

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 alterations in existing establishments, serious consequences might result in that part of the stream situated in the territory of the other State.[70]

The Institut has recently appointed a new committee charged with the function of presenting a draft text defining the rules of international law on this subject. The rapporteur of the

[70] ECE Report, p. 261; 24 Annuaire 170.

committee, Mr. Juraj Andrassy of Yugoslavia, has produced a preliminary report[71] for submission to the committee, in which he upholds, as a matter of existing international law, the principle of mutual rights and duties between co-riparians of a system of international waters. This report contains a list of questions of which the following are of special 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 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?

[71] See above n. 58, p. 133.

(2) The International Law Association

This Association at its thirty-ninth Conference in Edinburgh in 1954 established a committee, under the Chairmanship of Professor Clyde Eagleton of the United States, to propose a statement of principles upon which could be formulated rules of international law concerning systems of international waters. At its next Conference at Dubrovnik, Yugoslavia, in 1956, the Association had before it a first report of the committee which had been circulated among the members, and a second report which was read at the Conference. In addition there were placed before the Conference the written comments of several members of the Association.

The Conference also had before it a dissenting report by a member of the committee, Mr. S. M. Sikri, Advocate-General of the Punjab.[72] Mr. Sikri's report adopted the view that a riparian of a system of international waters is under no legal obligation to its co-riparians with respect to waters of the system while in its territory. This view was rejected by unanimous vote.

[72] Members of the Association, among whom is included the author of this study, hold their membership as, and act only in, their individual capacity as lawyers, but many of the members are governmental officials.

The Conference adopted a resolution calling for enlargement of the committee, the continuation of its study, and a further report to be made at the next Conference of the Association.[73]

The resolution also set forth a statement of principles as follows:[74]

INTERNATIONAL LAW ASSOCIATION
DUBROVNIK CONFERENCE, 1956

THE USES OF THE WATERS OF INTERNATIONAL RIVERS

RESOLUTION adopted unanimously Friday, August 31,

moved by: Mr. C. W. van Santen of the Netherlands
seconded by: Mr. M. C. Setalvad, Attorney-General of India
seconded by: Mr. Seidl-Hohenveldern of Austria
seconded by: Mr. Manzur Qadir, Senior Advocate, Supreme Court of Pakistan

The Conference of the International Law Association held at Dubrovnik, 1956,
having considered the first Report of its Committee on the Uses of the Waters of International Rivers and the statement of principles contained therein as revised by the Committee in the light of the comments of certain of the Branches and members of the Association and the deliberations of this Conference,
Commends the Committee for its work and adopts the following statement of principles as a sound basis upon which to study further the development of rules of international law with respect to international rivers:

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.

[73] This Conference will be held in New York City, September, 1958.

[74] PRINS. OF LAW GOVERNING THE USES OF INT. RIVERS, Lib. of Cong. Cat. Card No. 57-10830.

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.

* * * *

(3) The Inter-American Bar Association

This Association at its Conference in November, 1957, gave consideration to principles of law governing systems of inter-

national waters and adopted a resolution calling for the establishment of a committee to examine the subject further and prepare a report for its next Conference. The resolution also set forth a statement of principles as follows: [75]

TENTH CONFERENCE OF THE
INTER-AMERICAN BAR ASSOCIATION
Buenos Aires, November 19, 1957

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

[75] The proceedings have not yet been published.

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.

* * * *

VIII. Conclusions Regarding Principles of Customary International Law Governing Systems of International Waters

It is believed that any examination, such as the foregoing, of the sources of international law demonstrates that there are principles of international law governing systems of international waters in the sense that if issues with regard thereto were to be posed before an international tribunal it would pronounce judgment in accordance with such principles.

Bearing in mind that as used in this study "system of international waters" refers to an inland watercourse or lake, with its tributaries and distributaries any part of which lies within the jurisdiction of two or more states, and "riparian" and "co-riparian" refer to states having jurisdiction over parts of the same system of international waters—it is believed that an international tribunal would deduce the applicable principles of international law to be along the following lines:

1. A riparian has the sovereign right to make maximum use of the part of a system of international waters within its jurisdiction, consistent with the corresponding right of each co-riparian.

Comment: The doctrine of sovereignty is a fundamental tenet of the world community of states as it presently exists. Sovereignty exists and it is absolute in the sense that each state has exclusive jurisdiction and control over its territory. Each state possesses equal rights on either side of a boundary line. Thus riparians each possess the right of exclusive jurisdiction and control over the part of a system of international waters in their territory, and these rights reciprocally restrict the freedom of action of the others.

2(a) Riparians are entitled to share in the use and benefits of a system of international waters on a just and reasonable basis.

(b) In determining what is just and reasonable, account is to be taken of rights arising out of

(1) agreements
(2) judgments and awards, and
(3) established lawful and beneficial uses;
and of other considerations such as
(4) the development of the system that has already taken place and the possible future development, in the light of what is a reasonable use of the water by each riparian,
(5) the extent of the dependence of each riparian upon the waters in question, and
(6) comparison of the economic and social gains accruing, from the various possible uses of the waters in question, to each riparian and to the entire area dependent upon the waters in question.

Comment: The foregoing is an attempt to formulate the factors which would be considered in applying the doctrine of "equitable apportionment" because whatever the situation—whether in negotiation or before a tribunal—more guidance is needed than is contained in the words "equitable apportionment". Other factors could doubtless be included.

Perhaps an additional factor would be that the order of priority of uses of a particular system would be the relative importance of the possible different uses to the international area served by the system. It is doubtful that a statement of priority among uses of water for all systems could be made as a matter of existing law. On some systems the navigational use is of paramount importance; on others irrigation would surely come next after drinking and domestic uses.

It is believed that existing law gives priority to factors 1-3 in the order named, but not to other factors. Even so it may be difficult to balance the various factors because they would have different weights in different situations. For example, one riparian may have delayed developing uses of the part of a system in its territory much behind another riparian. On the one hand, the latter should not have its investment impaired by subsequent uses by the former; on the other hand, the former should not be deprived of the opportunity for its own development. In such a situation the benefits accruing to the latter under the priority factors would be taken into account in determining the just and reasonable apportionment of the total possible uses and benefits of the system. The balancing of rights with the obtention of maximum benefits to all riparians in most situations can probably only be done by joint planning and/or construction with agreed distribution of benefits, e.g. irrigation and power.

3(a) A riparian which proposes to make, or allow, a change in the existing regime of a system of international waters which could interfere with the realization by a co-riparian of its right to share on a just and reasonable basis in the use and benefits of the system, is under a duty to give the co-riparian an opportunity to object.

(b) If the co-riparian, in good faith, objects and demonstrates its willingness to reach a prompt and just solution by the pacific means envisaged in Article 33 (1) of the Charter of the United Nations, a riparian is under a duty to refrain from making, or allowing, such change, pending agreement or other solution.

Comment: It seems clear that there is no rule of international law that a riparian must have the consent of co-riparians as a condition precedent to the use and development within its territory of a system of international waters. In other words, a co-riparian does not have what in effect would amount to a veto over changes in the system.

However, in current international practice no riparian goes ahead with exploitation of its part of a system when a co-riparian may possibly be adversely affected, without consulting the latter and coming to an understanding with it. It is to be noted that the latter's consent need not be expressly given; having been given an opportunity to object, its silence may be taken as consent. If a co-riparian frivolously objects that injury may possibly be caused in its territory, the riparian has the power to proceed. The crux of this aspect of the matter is that friendly states desirous of conducting their mutual relations in good faith under the rule of law do in fact "seek solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice" as envisaged in Article 33(1) of the United Nations Charter.

Riparians are also doubtlessly motivated to seek agreement because of recognition that under the international law of responsibility of states, a riparian which alters the character of the bed or flow of a system of international waters is responsible if injury is thereby caused to a co-riparian. The concept of injury in international law is very complex; and it is difficult

to set an absolute limit beyond which the injury is sufficient to provide legitimate grounds for opposing action taken by a riparian. Moreover, responsibility means a duty to make reparation for an injury; and reparation may consist of pecuniary or specific restitution, specific performance, monetary damages, or some combination of these. It might be a vast responsibility to make pecuniary reparation or restore a *status quo*. Consequently, it is very important that riparians come to an agreement in advance, so that such responsibility would not arise. Their agreement upon the distribution of benefits is in effect an indemnification in advance.

UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

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Twenty-fifth session
Item 5 (b)

ECONOMIC DEVELOPMENT OF UNDER-DEVELOPED COUNTRIES WATER RESOURCES

Report of the Economic Committee

1. The Economic Committee, under the chairmanship of Mr. Costa P. Caranicas (Greece), Second Vice-President of the Council, considered at its 236th and 237th meetings on 30 April and 1 May 1958 (E/AC.6/SR.236-237) item 5 (b) of the Council's agenda (Economic development of under-developed countries: (b) water resources), which was referred to it by the Council at its 1016th meeting, held on 28 April 1958 (E/SR.1016).

2. The Committee had before it the following documents: E/3058, E/3066, E/3070 and E/3071.

It also received a draft resolution by Mexico, the Netherlands, United States and Yugoslavia (E/AC.6/L.205); and a note by the Secretary-General on financial implications (E/AC.6/L.205/Add.1).

3. The Committee decided, by 16 votes to none with 1 abstention, to recommend the following draft resolution for adoption by the Council:

Water Resources

The Economic and Social Council,

Recalling resolutions 417 (XIV), 533 (XVIII) and 599 (XXI),

I

Commends the Secretary-General and the specialized agencies *River Basin Development* (E/3066) which brings together basic information on and principles of integrated river basin planning and development,

Calls the Report and its recommendations to the attention of Member Governments and the appropriate specialized agencies,

Notes with interest the efforts being made to formulate legal principles applicable to users of international rivers, particularly those referred to in chapter 4 of the Report.

II

Commends the Secretary-General and the World Meteorological Organization for the Report *A Preliminary Inquiry on Existing Hydrologic Services* (E/3070),

Notes the recommendations with respect to the functions of the World Meteorological Organization in the field of hydrology,

Invites the World Meteorological Organization to consider the report and take appropriate action thereon, bearing in mind the discussion at the twenty-fifth session of the Economic and Social Council and the necessity of avoiding duplication with the work of the United Nations and specialized agencies.

III

Commends the Secretary-General for the Report *Water for Industrial Use* (E/3058), as a helpful contribution to a better understanding of this important and growing problem,

Calls the Report to the attention of Member Governments and the appropriate specialized agencies,

Calls special attention to the importance of water pollution abatement, particularly in industrialized countries and of preventing water pollution in countries in the early stages of industrialization and in this connexion recommends that the experience of the Economic Commission for Europe and co-operating specialized agencies be taken into account.

IV

Notes the Report of the Secretary-General concerning *International Co-operation with Respect to Water Resources Development* (E/3071) including the useful activities of the Regional Economic Commissions set forth in chapter III.

Commends the Panel of Experts for its report on *Integrated* for their co-operation in carrying forward their series of consultations on water resources problems,

Requests the Secretary-General to take appropriate measures for the establishment within the Secretariat, of a centre to promote co-ordinated efforts for the development of water resources and, for that purpose, to facilitate co-ordination in the collection of information on such resources and their uses,

Further requests the Secretary-General to give proper consideration to applications by Governments for assistance in the development of river basins, including the joint development of international rivers,

Endorses the recommendation of the Panel of Experts on Integrated River Basin Development relating to water resources that the United Nations and the specialized agencies pay special attention to stimulating and facilitating the international flow of information including that developed by non-governmental organizations, in consultative status with the United Nations,

Requests the Secretary-General and the specialized agencies to keep the inter-related problems of water resources under continuous review, and to this end to develop a programme of studies relating to such problems, giving priority for concerted action to the questions enumerated in chapter IV of document E/3071, and to integrate river basin development; and to report to the twenty-ninth session of the Council on progress achieved at the national and international level in regard to the above items including appropriate recommendations concerning further action which might be taken by the Council and the specialized agencies,

Invites Members of the United Nations to pay appropriate attention to water resources questions in their country programmes, and for regional or inter-regional projects, both in connexion with the United Nations Expanded Technical Assistance Programme and in programmes developed through other multi-lateral or through bilateral arrangements.

international rivers only do so to a small portion of all global coastal waters. The abandoning of the notion of "international drainage area" implied the abandoning of the redundant notion of " basin States ", though such a notion might have been relevant if it had been decided to retain a definition of " enclosed seas ".

(c) By " jurisdiction of a State " is meant the territorial jurisdiction of the State, and this covers, apart from the land-area, also that part of the adjacent maritime waters and continental shelf over which it has, in accordance with the rules of international law, jurisdiction.

(d) The second part of the definition is enumerative ; it indicates the more significant methods and ways by which maritime waters (both coastal and those of the high seas) are polluted ; the reference to ships is not meant to include the jurisdiction of a State over ships flying its flag on the high seas.

(e) To the extent that polluting agents are carried into the sea by rivers forming part of an international drainage area, the present wording of the second part of this paragraph makes it clear that a " land-locked " basin State of such river could also in theory be held responsible for damage caused to the marine environment or to the rights of another State, if the pollution originates in the former State. The majority of the Committee felt that if the land-locked State involved could prove in such a case that it has complied with the pollution-control rules set up by common agreement between the basin-States of an international drainage area, the question of its liability for damage caused outside this area could not arise.

Article II

Taking into account all relevant factors referred to in Article III, a State

(a) shall prevent any new form of continental sea-water pollution or any increase in the degree of existing continental sea-water pollution which would cause substantial injury in the territory of another State or to any of its rights under international law or to the marine environment, and

(b) shall take all reasonable measures to abate existing continental sea-water pollution to such an extent that no substantial injury of the kind referred to in paragraph (a) is caused.

Comments :

(a) This Article corresponds with Article X of the Helsinki Rules and its most striking deviation from the text of this last Article is replacing in paragraph (b) the word " should " by " shall ", thus making it an obligation to " take all reasonable measures to abate existing pollutions. Long discussions have preceded this fundamental change. The continuing abuse made of the sea by using it as the most convenient and cheapest garbage dump and waste-disposal area available for sometimes extremely dangerous materials, has brought the Committee to the conclusion that it must make it an *obligation* to take measures to stop fouling sea-water. Indeed, in view of the rapidly deteriorating quality of sea-water, it would be out of place to do no more than recommend the abatement of existing pollution.

By stating that with respect to existing pollution it suffices to take measures which can be considered " reasonable ", the Committee took into account that it is in general much more complicated to cope effectively with existing than with future pollution.

(b) As the concept of " international drainage " basin for various reasons had been dropped, it became necessary to formulate differently the area to be protected against substantial injury on penalty of becoming liable for damages caused. There is now more and more support for the philosophy according to which maritime waters need general protection, as they constitute—apart from narrow lanes near the coasts—a sort of global resource, and the flora and fauna living in these massive quantities of waters must be protected in the interest of all. It was therefore decided to introduce an innovation, consisting of the establishment of the obligation to protect " marine environment ". This term which is widely used in publications dealing with the wholesomeness of sea-waters, defines sufficiently for the purpose of the present rules the living organisms in maritime waters that need to be protected. Although protection of " marine environment " will normally also result in the protection of the " rights " of States—as laid down in conventional and customary international law—there are situations imagineable where, without substantial injury to the marine environment, such rights may be infringed. For this reason these rights had to be mentioned specifically. The sugges-

tion to replace the word " right " by " interest " was rejected as this last word was considered to be too vague and thus leading too easily to disputes.

(c) As the principle of equitable utilization was not maintained in the present rules, the opening phrase of Article X of the Helsinki Rules had to be modified slightly.

Article III

(a) States should establish, as soon as possible, international standards for the control of sea-water pollution, having regard to all relevant factors, including the following :—

—the geography and hydrography of the area (inland waters, territorial sea, contiguous zone and continental shelf) ;
—climatological conditions ;
—quality and composition of affected sea waters ;
—the conservation of the maritime environment (flora and fauna) ;
the resources of the sea-bed and the subsoil and their economic value for present and potential users ;
—the recreational facilities of the coastal area ;
—the past, present and future utilization of the coastal area and sea water ;
the economic and social needs of the (coastal) States involved ;
—the existence of alternative means for waste disposal ;
—the adaptation of detrimental changes to beneficial human uses ;
—the avoidance of unnecessary waste-disposal ;

(b) Until such standards are established, the existence of substantial injury from pollution shall be determined by taking into consideration all relevant factors, including those referred to in paragraph (a).

(c) The weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors.

Comments :

(a) Although this Article is in fact a replica of Article V of the Helsinki Rules, the principle of " equitable utilization " has not been taken over. A majority of the Committee felt that it was yet too early to study and express an opinion on the question whether States might claim an " equitable share " of the beneficial uses of maritime waters, whether inside or outside the limits of national jurisdiction of another State.

(b) The fundamental modification introduced into this Article concerns the recommendation that States establish, without delay, standards to determine what constitutes sea water pollution. If such standards could be agreed upon, problems concerning the liability for damages caused by pollution would be reduced considerably ; in fact, the establishment in itself of such standards would contribute greatly to the prevention of new, and abatement of existing pollution. The setting-up of standards is thought to be particularly appropriate for waters of enclosed seas (*e.g.*, Baltic—Adriatic Sea) and of semi-enclosed seas, in the waters of which a limited number of States are directly and economically interested owing to their geographical position (example in Europe : the North Sea).

As to the standards themselves the following three categories require consideration :

(i) polluting agents—which constitute a world-wide danger —such as lead, mercury and DDT ;

(ii) polluting-agents—which although constituting a world-wide danger—might be discharged into the sea in restricted quantities ;

(iii) polluting agents—causing pollution in a restricted area only and the admissible quantities of which have to be determined by the States directly involved, taking into account the factors enumerated in this Article and the rule laid down in paragraph (c).

(c) The factors which deserve particular attention for setting up standards proper—and for the standardization of the methods to be used for this purpose—differ from those set out in Article V of the Helsinki Rules mainly for technical reasons. Advice was obtained from technical experts with regard to the composition and formulation of the factors. The list of factors is not exhaustive, but is considered to contain all principal factors which ought to be taken into account.

(d) Experience has shown that the establishment of standards, even if all interested parties are willing to co-operate in this work, will unavoidably take a considerable time. Con-

sequently, it was felt necessary for reasons of fairness to introduce paragraph (b) of this Article, dealing with the liability for pollution damage occurring *before* the establishment of the standards.

Article IV

When it is contended that the conduct of a State is not in accordance with its obligations under these Articles, that State shall promptly enter into negotiations with the complainant with a view to reaching a solution that is equitable under the circumstances.

Comments :

This Article, which reflects the contents of the second paragraph of Article XI of the Helsinki Rules, was added to the present rules because situations in which Article V will be applicable and result in successful legal actions would probably be rare. It must be realized that in fact the potential efficacy of Article V is restricted as long as international standards as envisaged in Article III have not been set up.

Conscious of this situation the Committee decided to insert the obligation now set forth in Article IV ; it corresponds perfectly with the spirit of the Helsinki Rules. In fact, the present Article seems to constitute the most realistic approach for overcoming the difficulty in implementing Article V. The text as now established provides for the possibility that an international body, which need not necessarily be a governmental one, can assail a State which is thought to be acting in a way contrary to the new Articles.

Although Article IV refers to all obligations laid down in the present Articles, it is hoped that it will in particular promote studies and discussions leading to the establishment of the standards referred to in Article III. In connection with this Article and with a view to further the desirable co-operation between States, it was suggested to elaborate another rule stating the necessity to set up appropriate procedures for marine pollution control. Although this suggestion was largely supported, it was felt that the question should be left in abeyance until more was known as to the various technical aspects involved.

Article V

In the case of violation of the rules in Article II, the State responsible shall cease the wrongful conduct and shall compensate the injured State for the injury that has been caused to it.

Comment :

(a) Since Article II contains a similar obligation in respect to the prevention of new pollution and the abatement of existing pollution, there were not sufficient convincing grounds for maintaining a distinction between remedies in case of violation of the obligation to prevent new pollution and that of abating existing pollution. In fact, if the pollution scourge, whether new or existing, is to be abated properly and effectively on the international level, there must be a rule pursuant to which States, in whose territories pollution that causes or is likely to cause substantial injury originates, are required to cease the wrongful conduct ; and it is only fair that, where such pollution has already caused such injuries, the States which have suffered therefrom are entitled to receive compensation in one form or another.

(b) The demand to cease the wrongful conduct may and is likely to come from States which have a direct interest in the maritime waters that suffer from the pollution. As in the case of Article IV, attention was given also to the possibility that such demands may be made by a world-wide or regional organisation entrusted with the study of environmental problems and their solution ; no definite conclusion was reached on the question whether compensation will be due—and to whom—in cases where pollution has caused substantial injuries to the marine environment-at-large or whether in such cases it suffices to claim that the wrongful conduct is brought to an end.

Article VI

In case of a dispute, Articles XXXI to XXXVII of the Helsinki Rules are, so far as may be, applicable.

Comments :

For the reasons set out in respect of Article VIII of the Flood Control Rules, the Committee decided to include here the same Article. Article XXX of the Helsinki Rules, however, is not included, as Article IV of these present rules impresses the obligation to try to settle disputes by negotiation.

Reference documentation

There are several international treaties and conventions as well as studies and publications dealing with different problems concerning marine pollution. The following list is an attempt to indicate the most essential documentation in this field :

1. The four Conventions of the Law of the Sea adopted in Geneva 1958.
2. Convention on the Prevention of the Pollution of the Sea by Oil, London 1954, amended 1962 and 1969.

3. International Convention on Civil Liability for Oil Pollution Damage, Brussels 1969.
4. International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Brussels 1969.
5. North Sea Fisheries Convention, 1882.
6. Convention for the Prevention of Maritime Pollution by dumping from ships and aircraft in the North Sea, Oslo 1971 ; and
7. Agreement for Co-operation in dealing with Pollution of the North Sea by Oil, 1969.

Examples from municipal legislation :

1. The Canadian Arctic Water Pollution Prevention Act, 1969.
2. The Finnish Law on the Prevention of Pollution of the Sea, 1965.

Other Documentation :

1. The Sea ; Prevention and Control of Marine Pollution, Report of the Secretary-General, ECOSOC Doc. E/5003/1971.
2. The Legal Implications of the Disposal of Radioactive Waste into the Sea, IAEA/DG/WDB/L i9/14.6.1963.
3. Preparatory reports and other documents *inter alia* of:
   —Technical Conference on Marine Pollution and its Effects on Living Resources and Fishing, FAO Rome 1970 ;
   —United Nations Conference on Human Environment, Stockholm 1972 ;
   —the Third United Nations Conference on the Law of the Sea, 1973 ;
   —International Conference on Pollution by Ships, IMCO 1973.

EXTRA-TERRITORIAL APPLICATION of RESTRICTIVE TRADE LEGISLATION

(including Anti-Trust Legislation)

MONDAY, AUGUST 21st, 1972, at 2.30 p.m.

Chairman : Professor Y. LOUSSOUARN.

Professor G. van Hecke (Belgium; Chairman of the Committee): This is the fifth report of the Committee on the Extra-territorial Application of Restrictive Trade Legislation.

At The Hague Conference two years ago, a Resolution was adopted containing four recommendations on the Settlement of Disputes concerning Anti-Trust matters.

With respect to principles of law to be applied in resolving international disputes or the extra-territorial application of anti-trust law, the discussions at The Hague Conference have, as a result of that Committee, tried to clarify the two basic concepts of " conduct " within a territory and " effects " of conduct as factors conferring jurisdiction.

The method chosen by the Committee for that purpose was to discuss seven typical fact situations. Mr. Hunter will report on that part of the work and I am confident that you will find the discussion interesting and helpful.

Without wishing in any way to steal the show from the Rapporteur, I would like to emphasize that the general result of the Committee's discussions was a clear preference for basing jurisdiction on conduct rather than on effects. The notion of conduct has however been refined as you will see in Article 4 of the proposed Resolution. The recent decision of the Court of Justice of the European Communities in the Dyestuffs Cases would seem to be based on the same sort of thinking.

The questions whether effects cannot, in certain situations, be a basis of jurisdiction although there is no conduct within the territory, gave rise to a divergence of views within the Committee. You will find it described on pages 157-158 of the Report and in the comment to the proposed Article 6.

Another introductory remark I wish to make is to remind you that the subject matter to which the proposed principles are intended to apply is restricted to the quasi-penal or administrative aspect of anti-trust enforcement and is not concerned with private remedies. This is clearly stated in the proposed Article 1 and it will be important to keep it in mind during the discussion.