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ISBN-27227
PN-AN-394

LEGAL QUESTIONS ARISING OUT OF THE CONSTRUCTION
OF
A DAM AT MAQARIN ON THE YARMUK RIVER

**Report of a Working Group Established by
the American Society of International Law
Under Contract AID/NE-C-1256 with the
Agency for International Development**

**Washington, D.C.
31 July 1977**

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FOREWORD

This study of the legal questions arising out of the possible future construction of a dam at Maqarin on the Yarmuk River, a tributary of the Jordan River, was prepared by a working group established by the American Society of International Law under Contract No. AID/NE-C-1256, 30 June 1976, with the United States Agency for International Development.

The contract specified that:

The purpose of the study is to provide State/AID with a better comprehension of the legal implications for the riparian States of implementing the Yarmouk River/Maqarin Dam project as proposed by the Government of Jordan and of other alternative options of water utilization. The study is intended to identify international legal principles relevant to the proposed Maqarin Dam construction, to assess such legal consequences, and to consider related questions . . .

The study should not be a work of advocacy either in support of or opposed to construction. To the extent that relevant legal rules are not clearly established or where competing principles may exist, the study should so specify.

Under the terms of the contract, the working group of the Society was called upon to investigate and to report on the state of the law bearing upon the following matters:

1. Review and summarize existing legal literature on proposals for Jordan River development.

2. Define the customary international legal principles by which the legal rights of Jordan, Syria and Israel may be determined with respect to apportionment, use and pollution of the waters of the Jordan River system. It should take into account relevant state practice (Regional and Worldwide), formulations of applicable rules by such bodies as the International Law Association (The Helsinki Rules), and other sources and indications of international law. To the extent that the United States Government view concerning particular legal principles has been articulated, that should be indicated.

3. Identify applicable international law rules with respect, inter alia, to the following:

(a). Rules applicable to apportionment and use of Jordan River system rivers, including the resolution of competing use priorities or as between existing and future uses.

(b). Any specialized rules applicable to pollution of those waters.

(c). Duties with respect to notification, consultation and negotiation among interested states.

(d). Character of legal remedies, if any, available.

(e). Any special rules, including those derived from Moslem water law, from prior convention or agreements, or reflecting regional variations in more general customary legal rules.

4. In addition, the above should take into account work in this area currently underway in the U.N. System (i.e., UNEP, ILC) or elsewhere, and to the extent that applicable legal principles cannot be clearly articulated, or are subject to differing views, that should be indicated.

5. The study should identify the national legal principles governing the apportionment, use and pollution of Jordan River waters under the laws of Jordan and other affected States.

6. Examine and review possible bilateral or multinational mechanisms of procedures for allocation of waters of the Jordan River.

system or for resolving disputes regarding their use. The current state of affairs between Jordan and Israel should be taken into account in reviewing such possibilities.

7. The legal specialist(s) should indicate and take account of the legal significance of the following:

(a). The 1953 convention between Jordan and Syria relating to the Yarmouk (in particular; is the convention in force: and if so, what, if any, legal obligations devolve upon Syria vis-à-vis Israel, by virtue of it).

(b). The location, character and extent of privately held rights to use and apportionment of Jordan River waters in the states concerned.

(c). The legal situation arising from the lack of settled boundaries and conflicting territorial claims in certain of the affected areas. The study should consider, inter alia, what rights, if any, Israel enjoys under international law regarding use and apportionment of waters in areas under Israeli military occupation.

8. Examine whether the United States incurs or would incur any legal responsibility with respect to any affected state by virtue of its activities or potential activities in support of construction of the Maqarin Dam. If the conclusion is affirmative, the study should indicate the origin, character and extent of such responsibility.

The survey of the existing literature on the legal aspects of the development and apportionment of the waters of the Jordan Basin forms the subject of a separate document.

The working group of the American Society of International Law consisted of Professor R. R. Baxter (Principal Investigator), Professor Richard B. Bilder, Dr. John Lawrence Hargrove, and Professor Robert D. Hayton. Professor Baxter was the author of the study, other than

Chapters IV and VII, which were written by Professor Bilder, and Chapter I and Chapter V, Section A, which were written by Dr. Hargrove. The text was reviewed by the entire working group. Mr. Steven Dorr, Research Assistant of the Society, provided valuable help throughout.

This report does not purport to represent the views of the American Society of International Law (which as an organization does not take positions on matters of this kind). Similarly, what is stated in this report does not necessarily reflect the views of the Agency for International Development. The final responsibility for this report is thus borne by the working group, according to the allocation of responsibility for various portions of the text, as indicated above.

R. R. Baxter

Washington, D.C.
31 July 1977

CHAPTER I

THE POLITICAL GEOGRAPHY OF THE AREA

For several reasons the construction of the proposed Maqarin Dam would be an "international" water development project. The water impounded would flow from Syria and Jordan, and the reservoir itself would straddle the present Jordan-Syria international boundary. The impoundment would affect the flow and potentially the usage of water in the lower Yarmuk, which as it flows toward the Jordan River intermittently forms the boundary between Jordan and Syria, and eventually coincides with the line that divides Jordan and Israel. Finally, the Yarmuk River is part of the Jordan watershed which drains parts of the territory of four countries (Jordan, Syria, Lebanon, and Israel). Consequently an examination of the legal implications of construction of the Dam should begin with a sketch of the relevant political geography, at least of those areas which might be significantly affected by the Dam. This is the more important because of the highly peculiar character of the legal and political status of some of the areas in question and the lines that define them - a residue of the successive stages of the continuing Arab-Israeli dispute.

Jordan: East Bank. That part of Jordan lying east of the Jordan River and within its watershed is the single piece of national territory most importantly affected by

the project. Not only will the reservoir itself be located in part on this territory, but for the time being at least the Dam will primarily affect the rate of flow of water through the East Ghor Canal; this water is at present available only to the East Bank. This portion of the territory of Jordan is defined on the north and west by well-settled international boundaries dating back to the division in 1922 of the British mandated territory of Palestine along the Jordan River, into Palestine west of the River and Transjordan to the east,¹ and the the Franco-British treaty of 1920 and Protocol of 1931, establishing the boundary between Transjordan and the French mandated territory of Syria.² None of this territory is under Israeli occupation or included within a demilitarized zone.

Jordan: West Bank. That part of Jordan lying west of the Jordan River, by contrast, was a part of the mandated territory of Palestine after the division in 1922. Save for the wedge of Israeli territory stretching from Jerusalem westward, the present West Bank roughly coincides with the largest section of the "Arab state" envisaged by the 1947 U.N. Partition Plan, which, however, would have made Jerusalem and its environs an international enclave.³ The international legal basis for the characterization of the West Bank as a part of Jordan stems from the Israel-Jordan Armistice Agreement

of 1949⁴ and the subsequent practice of the United Nations and of most individual governments recognizing the legitimacy of Jordanian administration of the area. In 1950 the Jordanian legislature formally annexed the West Bank through a declaration that the East and West Banks are parts of a single state.⁵ The Armistice Agreement itself, however specifically negates any implication that the Armistice Demarcation Line is to be construed as an international boundary,⁶ and the position of Israel, particularly since occupying the West Bank in 1967, appears to be to reject any suggestion that the Agreement is any longer definitive of its own territorial rights in the area, whether before or after a peace settlement. By contrast, in the practice of the Security Council and General Assembly, the 1949 Line delimiting the West Bank is implicitly taken as defining one of the Arab territories under Israeli Military occupation from which Security Council Resolution 242 (1948) envisages (with more or less precision) "withdrawal,"⁷ and which is subject in the meantime to the international legal régime of belligerent occupation.⁸

It may be presumed, on this basis, that Jordan retains as to the West Bank whatever territorial rights it had as a result of the Armistice Agreement of 1949, i.e., that Jordan is at least the state legally entitled to administer the territory. This legal state of affairs

remains unaffected by the gradual progress, over the last several years, of efforts to achieve political recognition within the U.N. and elsewhere of a "right of self-determination" on the part of the "Palestinian people,"⁹ and of the Palestine Liberation Organization as the legitimate representative of that people.¹⁰

It is similarly unaffected legally by the concept of a separate Arab state comprising the West Bank as part of an eventual peace settlement. As a practical political matter, of course, the emergence of the prospect of such a separate Palestinian state and of an internationally accepted Palestinian "voice" could bear quite acutely on any negotiation tending to affect the disposition of shared natural resources available to the area.

Israel. The line between Israel and Jordan north of the West Bank follows an international boundary dating to the division in 1922 of the Palestine mandate into Palestine and Transjordan. The line follows the Jordan River north to the Yarmuk, and thence up the Yarmuk to the Israel-Syria boundary.¹¹ The latter, in turn, was itself settled in the Franco-British Treaty of 1920 and Protocol of 1931, referred to earlier.¹² The Armistice Demarcation Line in this area follows this international boundary.

For some years the triangle of Israeli territory east of the Jordan and south of Lake Tiberias has received

significant quantity of Yarmuk water for irrigation purposes. One result of the alignment just described is that Israeli territory, from 1949 onward, has extended almost to the site of the diversion dam designed to regulate the flow of Yarmuk water into the East Ghor Canal, enhancing Israel's capacity to influence the diversion operation so as to assure the quantity of the flow allowed to continue down the Yarmuk. This practical benefit to Israel was perhaps limited from 1949 to 1967 by the fact that all of Israeli territory east of the Jordan in this sector was a demilitarized zone under the Israel-Syria Armistice Agreement of 1949.¹³ In 1967, however, the area was militarily occupied by Israel, along with substantial adjacent portions of Syrian territory, thus assuring its control over the Adasiye diversion facility and placing it in a controlling position with respect to any further construction at the Khalid dam site on the lower Yarmuk, which was thereupon discontinued. This situation prevails in 1977 as to all the Demilitarized Zone and as to the Golan Heights in Syria. It was not significantly affected by the implementation of the Separation of Forces Agreement of 1974 between Syria and Israel following the 1973 war.

Syria. It is understood that the benefits likely to accrue directly to Syria from the construction of the Maqarin dam will be minimal, even though the project

requires the use of Syrian territory at the site and the cooperation of Syrian authorities. An essential ingredient of successful completion of the Dam is therefore continued reasonably friendly and stable political relations between Syria and Jordan. While these relations have varied rather widely in these respects since the late forties, so far as is known there have at least been no territorial disputes between the two governments; and, as already indicated, the boundary between them is clearly established from the Mandate period, although not physically demarcated.

FOOTNOTES TO CHAPTER I

1. Mandate for Palestine Confirmed by the Council of the League of Nations on 24 July 1922, and the Memorandum by the British Government Relating to Its Application to Transjordan Approved by the Council of the League on 16 Sep. 1922, League of Nations Doc. C.529.M.314. 1922.VI., 3 Moore, *The Arab-Israeli Conflict* 75, 83 (1974).
2. Franco-British Convention on Certain Points Connected With the Mandates for Syria and the Lebanon, Palestine and Mesopotamia, signed at Paris, 23 Dec. 1920, 22 L.N.T.S. 353; Exchange of Notes Constituting an Agreement between the British and French Governments respecting the Boundary Line Between Syria and Palestine from the Mediterranean to El Hammé, signed at Paris, 7 March 1923, 22 L.N.T.S. 363. See also *The Geographer*, Department of State, *International Boundary Study No. 94, Jordan-Syria Boundary* (1969).
3. G.A. Res. 181 (II), 2 U.N. GAOR, Resolutions Sept. 16-Nov. 29, 1947, at 131-32, U.N. Doc. A/519 (1948).
4. General Armistice Agreement between the Hashemite Jordan Kingdom and Israel, signed at Rhodes, 3 April 1949, 42 U.N.T.S. 303.
5. Resolution Adopted by the Jordanian Parliament providing for the Utilization of the Two Banks of the Jordan River, 24 April 1950, in 1 Khalil, *The Arab States and the Arab League* 54 (1962).
6. General Armistice Agreement between the Hashemite Jordan Kingdom and Israel, art. XI, paras. 8 and 9.

7. 22 Nov. 1967, 22 SCOR Res. 8, U.N. Doc. S/INF/22/Rev.2 (1968), and such further resolutions of the General Assembly and Security Council calling for implementation of Resolution 242, as G.A. Res. 2628 (XXV), 4 Nov. 1970, 25 GAOR Supp. No. 28, at 5, U.N. Doc. A/8028 (1971), and S.C. Res. 338, 22 Oct. 1973, 28 SCOR Res. 10, U.N. Doc. S/INF/29 (1974).
8. Application of the Geneva Conventions of 1949 has been called for in S.C. Res. 237, 14 June 1967, 22 SCOR Res. 5, U.N. Doc. S/INF/22/Rev.2 (1968); G.A. Res. 2727 (XXV), 15 Dec. 1970, 25 GAOR Supp. No. 28, at 36, U.N. Doc. A/8028 (1971); G.A. Res. 3525 A, 15 Dec. 1975, 30 GAOR Supp. No. 34, at 41, U.N. Doc. A/10034 (1976).
9. See G.A. Res. 3236 (XXIX), 22 Nov. 1974, 29 GAOR Supp. No. 31, at 4, U.N. Doc. A/9631 (1975), reaffirming the inalienable rights of the Palestinian people in Palestine, including "The right to self-determination without external interference."
10. The Palestine Resolution of the Seventh Arab Summit Conference, Rabat, 29 Oct. 1974, recognized the Palestine Liberation Organization as the "sole legitimate representative of the Palestinian people in any Palestinian territory that is liberated." 4 Journal of Palestine Studies, No. 2, at 177 (1975). King Hussein agreed to respect this decision. H. Cattar, Palestine and International Law: The Legal Aspects of the Arab-Israeli Conflict 37 (2nd ed. 1976).
11. Cited note 1, supra.
12. Cited note 2, supra.

13. Israeli-Syrian General Armistice Agreement, signed at Hill 232, near Mahanayim, art. V, 20 July 1949, 42 U.N.T.S. 327.

CHAPTER II

THE CUSTOMARY INTERNATIONAL LAW RELATING TO THE EQUITABLE UTILIZATION OR APPORTIONMENT OF THE WATERS OF INTERNATIONAL RIVERS

A. The Definition of an International River

The first question that must be addressed with respect to the apportionment of the waters of the Yarmuk River concerns the area that must be taken into consideration -- what might be described as the "unit of measurement," the resources or needs of which will determine how the existing or potential water supplies are to be divided. In the case of the Yarmuk River, one might take into account either

- the Yarmuk and its tributaries, or
- the Yarmuk and the Jordan River and their tributaries, including water that is now or might be supplied to the lower Jordan from Lake Tiberias, or
- the entire drainage basin of the Jordan River, from Lake Hulah to the Dead Sea and including all of the tributaries of the upper Jordan, such as the Hisbani River and the Bareightit, and all ground water resources.

What position on this matter is taken by customary international law?

The classic statement of the concern of international law with rivers that traverse or divide the waters of two or more states is to be found in the judgment of the Permanent Court of International Justice in the case of the Territorial Jurisdiction of the International Commission of the River Oder:

But when consideration is given to the manner in which States have regarded the concrete situations arising out of the fact that a single waterway traverses or separates the territory of more than one State, and the possibility of fulfilling the requirements of justice and the considerations of utility which this fact places in relief, it is at once seen that a solution of the problem has been sought not in the idea of a right of passage in favour of upstream States, but in that of a community of interest of riparian States. This community of interest in a navigable river becomes the basis of a common legal right, the essential features of which are the perfect equality of all riparian States in the use of the whole course of the river and the exclusion of any preferential privilege of any one riparian State in relation to the others.¹

While the case related to the interpretation of a treaty and concerned navigation rather than other uses of the River Oder, the principle has been widely cited as a basic norm governing international rivers generally.

Unfortunately, the case law and state practice bearing on this question are limited. We turn first to the views of learned publicists, who have attempted to reflect the state of contemporary international law.

1. The views of the publicists.

Lauterpacht defines as "not-national rivers" (conceding that the term "plurinational" or "multinational" has "certain merits") those which run through several states. He reserves the term "international rivers" for those that "are navigable from the open sea and at the same time either separate or pass through several States between their sources and their mouths."² Lauterpacht says of uses other than navigation:

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 conditions of its own territory to the disadvantage of the natural conditions of the territory of a neighbouring State.³

O'Connell defines an international river as follows:

An international river (and this includes other types of water courses and fluvient lakes) is one which, together with its tributaries and distributaries, lies in part within the jurisdiction of two or more States, or which forms the boundary between two or more States.⁴

He goes on to say:

International law places riparian States on a basis of mutuality with respect to the use of the waters of the international river. The dependence of each of them upon the river and its resources creates a régime of reciprocal obligations . . . Among the writers on the subject there is a remarkable conformity of opinion opposed to the view that a State in the exercise of its sovereignty is unrestricted in its use of waters.⁵

The views expressed in these two great British treatises follow in the paths of other British authorities. Waldock's edition of Brierly's respected treatise defines international rivers in basically the same way as Lauterpacht and O'Connell and states that "it is generally accepted today the right [of a riparian to exploit an international river] is subject to certain limitations resulting from the state's duty not to violate the corresponding right of other riparian states to exploit the river within their own territories."⁶ All of these acknowledge their indebtedness to H.A. Smith's The Economic Uses of International Rivers. In that pioneering work, Professor Smith concluded 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.⁷

However, the view that customary international law regulates the use of an international river and that each territorial sovereign does not have an unfettered right over such a river is not peculiar to British writings. The eminent Yugoslav international lawyer Professor Juraj Andrassy finds the source of the duties under international law of a state with respect to a river which forms a boundary between states or which traverses two or more states to lie in what he has described as a "droit international de voisinage" or an international law of neighborliness.⁸

While he was visiting professor at the University of Cairo, he expressed his support of the view that one should, when considering the industrial and agricultural uses of an international river, have regard to all the waters of the basin:

En parlant des fleuves internationaux, on se limite à des cours d'eau qui forment frontière entre deux Etats ou qui traversent successivement deux ou plusieurs Etats. Cette manière de voir est satisfaisante pour les problèmes de la navigation, mais elle ne l'est pas quand il s'agit d'autres utilisations des cours d'eaux. Pour les utilisations industrielles ou agricoles, il faut considérer comme internationales toutes les eaux d'un bassin fluvial qui s'étend au territoire de deux ou plusieurs Etats.⁹

Sauser-Hall also considers international rivers to be regulated by international law, but he would limit an international river to the main course of the river and rejects the notion that the entire basin is governed by international law. He fears that states would rebel against international control of all waters within a basin.¹⁰

In the Manual of Public International Law, edited by Sørensen, Professors Sahović and Bishop express the view that international rivers, coming "under the sovereignty of several states in various ways," are subject to "general rules for the utilization of river waters" which are "to be found among the rules of international customary law and are derived from the so-called good-neighbour principle."¹¹

Caponera, now the chief expert on water law of the United Nations Food and Agriculture Organization, has written approvingly of the idea that an international drainage basin should be treated as a unit and that the riparians should share in the use of the waters of such a basin,¹² which he finds to be a principle rooted in a number of systems of water law, such as the Chinese.¹³ Chen, an authority from the Republic of China, agrees that a river system should be treated as a whole and describes the international law applicable to such a river system.¹⁴ Teclaff contents himself with describing the trend of legal development:

The view that the river basin should be treated as a unit for water resources development, which has been generated under the impact of more intensive multipurpose exploitation, was expressed also in the thinking of jurists concerning the organization of water resources development in politically divided basins.¹⁵

It would be misleading to suggest that opinion is unanimous on the subjection of international rivers to international law and on the existence of legal limitations on the power of a state to do as it will with the waters of a river passing through its territory to the territory of another state. The reasons for the views taken by some authorities are quite clear. Professor Berber, who denied the existence of "a customary law system of international water rights" and looked to the conclusion of a treaty to regulate the use of each international river, was simulta-

neously serving as an advocate for the Government of India, an upper riparian. But even he concedes that the overwhelming majority of writers deny the absolute territorial sovereignty of a riparian of an international river.¹⁶

Writers in the Soviet Union and in states ideologically aligned with that country reject the concept of regulation of international rivers by international law.¹⁷ The hostility of such writers to the very idea of regulation of international rivers (in the geographical sense) by customary international law is an aspect of their attitude toward customary international law in general and reflects a prejudice in favor of regulation of international rivers through treaty. Similar objections to reliance on customary international law in the case of western authorities may reflect either idiosyncratic views of the nature of international law¹⁸ or, with respect, a failure to inquire very deeply into the trend of authority and of recent pronouncements of inter-governmental bodies and learned books.¹⁹

It is particularly worthy of notice that authorities in the Middle East take the view that an international river is to be seen in terms of the entire basin drained by the river.

Dr. Sayed Hosni wrote of the Nile:

The principle that the respective needs of co-riparians should be given due consideration in the plan for the utilization of the Nile waters was restricted to the contracting parties. The 1959 Agreement showed that the Nile Community has taken it for granted before undertaking negotiations with other co-riparians that this

principle is a universal one extending throughout to the Nile Community. Therefore, confirmation of original principles of the 1929 Agreement and addition of new ones by the 1959 Agreement, have shown that the Nile Community is developing a uniform practice intended to serve and to bind all riparians, and thus to build a regime for the whole Nile Basin.²⁰

In supporting the principle of "equitable apportionment," particularly as applied to the Nile, Aziza Fahmi stated:

Consequently, "equitable apportionment" should be applied only to lands within the watershed . . . [T]here may be no other natural sources within the watershed of the river such as wells and rain . . .

. . . It is reasonable therefore to take into consideration these natural conditions when accessing [sic] the requirements of water in different regions on the basis of an equitable apportionment within the watershed. Thus the final term becomes "equitable apportionment of water from the river, wells and rain within the watershed."²¹

He goes on to say that "the waters of an international river shall be equitably apportioned within the watershed of the river."²²

2. The views of learned organizations.

In 1961, the Institut de Droit International drew up a resolution on "Utilization of Non-Maritime International Waters (except for navigation)," in which it stated that it,

Recognizes the existence in international law of the following rules, and formulates the following recommendations:

Article 1

The present rules and recommendations are applicable to the utilization of waters which form part of a watercourse or hydrographic basin which extends over the territory of two or more States.

Article 2

Every State has the right to utilize waters which traverse or border its territory, subject to the limits imposed by international law and, in particular, those arising from the provisions which follow.

This right is limited by the right of utilization of other States interested in the same watercourse or hydrographic basin.²³

The Institut had previously laid down rules on the "International Regulation of the Use of International Watercourses" in 1911;²⁴ the idea of international rules concerning the utilization of international rivers was thus not a new idea.

The Helsinki Rules on the Uses of the Waters of International Rivers, adopted by the International Law Association in 1966, lay down "rules of international law" applicable to an international drainage basin, which is defined in the following terms in Article II:

An international drainage basin is a geographical area extending over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus.²⁵

These two major learned groups thus both employ the concept of an international drainage basin and acknowledge that such basins are regulated by rules of customary international law.

3. State practice (including treaties and judicial decisions).

Thus far, emphasis has been placed upon the views of learned authorities and of organizations of learned authorities. The evidence of actual state practice is admittedly sparse and scattered, but what evidence there is points to the regulation of international waterways by norms of international law and denies the unfettered right of states to do as they will with the portions of international waterways lying within their boundaries

The fact that states have not concluded multilateral lawmaking treaties on this subject might point in one of several directions: It may indicate that states are clinging to some presumed sovereign prerogative to full control over the section of an international river under their jurisdiction; that states prefer to regulate their relations as regards an international river through a bilateral or plurilateral agreement applying only to that watercourse; that the existing norms of customary international law, albeit of a somewhat general character, are sufficient guides to the conduct of states; or that states are guided by more than one of these considerations. There is, for example, the 1923 Convention on the Development of Hydraulic Power Affecting More Than One State,²⁶ calling upon states to conclude agreements if the generation of hydraulic power will have effects on the territory of another state and to employ the technical methods that might legitimately be taken into

account "in analogous cases of development of hydraulic power affecting only one State, without reference to any political frontier."²⁷ However, relatively few states have become parties to this instrument.

There have been at least two attempts to prepare codifications of the law of international rivers on a regional basis, both of which have proven to be abortive. Both employ the concept of the international river. Article 3, paragraph (a), of the "Draft Convention on the Industrial and Agricultural Use of International Rivers and Lakes," drafted by the Inter-American Juridical Committee in 1965, incorporates the following definition:

An international river is one that flows through or separates two or more States. The former shall be called successive, and the later contiguous.

The text then goes on to specify the rights and duties of the riparian states.²⁸

The Asian-African Legal Consultative Committee initiated its study of international rivers in 1967. The Rapporteur for the Sub-Committee on the subject formulated a series of draft propositions applicable to international drainage basins. Proposition II defined the concept as follows:

1. An international drainage basin is a geographical area extending over two or more states determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus.²⁹

Although it was not possible for the Standing Sub-Committee on the Law of International Rivers to reach agreement on the propositions submitted by the Rapporteur, there did not seem to be any doubt about the propositions that the international drainage basin (however it might be defined) is the appropriate concept and that such basins are regulated by international law.

To return to the American Republics, the Seventh International Conference of American States, meeting in Montevideo in 1933, adopted a resolution on the "Industrial and Agricultural Use of International Rivers," defining the obligations of the riparian states with respect to both successive and contiguous international rivers.³⁰

There is relatively little state practice articulating the concept of the international river and defining with any degree of specificity what the obligations of states are under international law with respect to such rivers -- other, of course, than in the form of the treaties that they have concluded. The United States Department of State prepared some years ago a memorandum of law which dealt in part with "The Use of Systems of International Waters under Customary International Law," which was submitted to the Senate Committee on Interior and Insular Affairs. Although the specific matter in issue was the diversion of waters by Canada from the Kootenay River into the Columbia and from the Columbia into the Fraser, the memorandum is

generally regarded as a definitive statement of the position of the United States on international rivers. The conclusion reached in the memorandum was that there are principles of customary international law governing international waters, which would be applied by an international tribunal in a case involving such waters. The memorandum stated that

. . . [A]s 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 . . .³¹

The regulation as a unit of an international river or an international river system or of an international drainage basin has also been judicially recognized as a legal principle. The Arbitral Tribunal in the Lake Lanoux Arbitration mentioned the concept in order to place it within the proper limits:

The unity of a basin is sanctioned at the juridical level only to the extent that it corresponds to human realities.³²

4. Recent Studies.

The trend in recent studies of the law and institutions of international rivers has been to consider that international drainage basins should be treated as a unit. Several examples will suffice:

The Panel of Experts on the Legal and Institutional Aspects of International Water Resources Development, which was convened under the auspices of the United Nations Secretariat, has recently rendered its report. In it, the Panel says:

With all of the limitations on the "unity" of the basin, outlined in the previous subsection, the concept is still regarded as the most viable foundation for settling the geographic parameters of the co-operating States' régime for non-maritime water development. The basin simply cannot be ignored when calculating the role of water and allocating its use. Therefore, expressions formerly employed, such as "international river" or "international river system" are now known to be inadequate. The concept of international drainage basin, because it is more responsive to the hydrologic facts and is ascertainable with considerable precision, has become the accepted statement of the territorial reach of a specific international water resources system. In the absence of special agreement and under modern international law, States sharing the physical basin are thus expected to regard the basin's limits as the scope of the régime governing their shared use of the water resources within it. The total area of the physical basin may not always coincide with the geographical or political areas with which planning and development must be co-ordinated.³³

The "international river basin" had been taken as the appropriate area of study for the report by the Secretary-General of the United Nations on "Developments in the Field of Natural Resources - Water, Energy and Minerals: Technical and Economic Aspects of International River Basin Development."³⁴

5. The Most Recent Evidence of the Views of States as Expressed in Connection with the Work of the International Law Commission.

If the record were left at this point, it would appear that there is little dissent from the view that an international river or an international river basin or an international drainage basin is, however defined, subject to regulation as a unit under customary international law. The preponderance of evidence has favored the concept of the international drainage basin, taking into account all waters within the basin, and not simply the waters of the river.

Substantial doubt has been cast on the acceptability to the international community of the international drainage basin as the dominant concept by expressions of the positions of states in connection with the work of the International Law Commission on the codification and progressive development of international law on "The Law of the Non-Navigational Uses of International Watercourses." The Secretary-General of the United Nations circulated to Member States a questionnaire prepared by the Commission. The recipients were asked:

- A. What would be the appropriate scope of the definition of an international watercourse, in a study of the legal aspects of fresh water uses on the one hand and of fresh water pollution on the other hand?
- B. Is the geographical concept of an international drainage basin the appropriate basis for a study of the legal aspects of non-navigational uses of international watercourses?

- C. Is the geographical concept of an international drainage basin the appropriate basis for a study of the legal aspects of the pollution of international watercourses?³⁵

Only twenty-one states replied, of which none was in the Middle East. Six states of Europe and Latin America supported the traditional definition of an "international river" to be found in Article 108 of the Final Act of the Congress of Vienna of 1815.³⁶ There, the international river is defined simply as one which separates or crosses the territory of two or more States. Canada favored this definition as a starting point, but conceded that other geographic units might be considered in connection with specific problems. Pollution might, for example, have to be thought of in terms of the natural drainage basin. The Federal Republic of Germany considered the Vienna definition to be sound but that it might be necessary to extend the study of "quantity" to the "river basin as a whole."³⁷ France said that any other concept of a waterway other than that of an international watercourse could be "almost unthinkable" for any purpose except the control of pollution, which it thought should not be taken up by the Commission at all.³⁸

Nine states, including the United States, supported the concept of the international drainage basin.³⁹ Both Hungary and Venezuela thought that the drainage basin concept might be used for certain purposes but not across the board.⁴⁰

The Special Rapporteur for the Commission, Mr. Kearney of the United States, summed up the difference of views in his report:

Thus some States objected to the use of the drainage concept because they considered that its use implied the existence of certain principles, especially in the field of river management. Other States considered that traditional concepts such as contiguous and successive waterways would be too restricted a basis on which to carry out the study in view of the need to take account of the hydrologic unity of a water system.⁴¹

He concluded that:

Consequently, it would seem wise for the Commission to follow the advice proffered by a number of commenting States that the work on international watercourses should not be held up by disputes over definitions.⁴²

The discussion in the International Law Commission itself reflected the same difference in views manifested in the replies of states to the questionnaire. It was pointed out that basins could cover vast areas (the Amazon, for example, covering an area of 4,787,000 square kilometers) and that it would not be appropriate to regulate water resources in a land area of that size.⁴³ It was ultimately decided to follow the advice of the Special Rapporteur and to leave aside for the moment the range of the term "international watercourses."⁴⁴

The report of the International Law Commission was discussed during the Thirty-First Session of the General Assembly, held in 1976.⁴⁵ Among the delegations that ex-

pressed themselves on the work of the Commission concerning international watercourses, opinions fell into roughly three categories, which secured approximately equal support. One group of states upheld the traditional definition of international rivers deriving from the Final Act of Vienna. A second group, including Israel, defended the concept of the international drainage basin.⁴⁶ The remaining states expressed gratification that the issue of a definition had been laid aside in order to permit the Commission to move on to questions of substance. No state of the Middle East, other than Israel, commented on this topic, so the debate gave no clue as to the view entertained by Jordan and other states at war with Israel.

Although only a small number of states expressed their views to the International Law Commission and only a minority of the states participating in the 1976 session of the General Assembly addressed the issue, enough did speak to the definition of "international watercourses" to show that there is a clear split of opinion on whether to employ the concept of the "international drainage basin" in codifying international law.

An "international drainage basin" is defined in the Helsinki Rules, formulated by the International Law Association, as

. . . a geographical area extending over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus.⁴⁷

The concept of an "international river," as defined in the Final Act of the Vienna Conference of 1815, would leave out of account surface and underground waters. The concept is somewhat ambiguous in that an international river might be thought, on the one hand, to include the tributaries of that river, even if falling entirely within the territory of one state, or might, on the other hand, be limited to a particular river which crosses or separates two states. A further refinement would accord different treatment of rivers which form a boundary and rivers which cross a boundary, according to a distinction made by several Latin American states. Resolution No. 25 of the Act of Asunción regarding the Plata River Basin stated that:

2. In contiguous international rivers, which are under dual sovereignty, there must be a prior bilateral agreement between the riparian States before any use is made of the waters.

3. In successive international rivers, where there is no dual sovereignty, each State may use the waters in accordance with its needs provided that it causes no appreciable damage to any other State of the Basin.⁴⁸

In the case of the Yarmuk River, there has been a strong tendency to treat the Jordan River and all of its tributaries, including the Yarmuk, as one unit, normally identified as the "Jordan Valley." This was the frame of reference of the Johnston Plan, and one of the basic assumptions of that Plan was that:

The limited waters of the Jordan River system should be shared equitably by the four states in which they rise or flow. This principle was implicit in the Valley plans put forward respectively by the Arab States and Israel, both of which clearly recognized the right of the other states to a share of the available waters.⁴⁹

A contemporary description of the Johnston Plan stated that:

One of the conditions [of United States aid to the execution of the Plan] is that the Plan must make full use of all of the available waters of the Valley without waste or extravagance.⁵⁰

This is not the "international drainage basin" approach in its broadest terms, because ground waters have not been taken into account and the Jordan Valley is something less than the entire drainage basin of the Jordan, which would even include the City of Amman. The other plans that preceded the Johnston Plan likewise looked to the management and allocation of the waters of the Jordan and its tributaries within the Jordan Valley.

Without regard to what may be the customary international law regarding the allocation of the waters of the Jordan River, the practice of the riparian states and of third parties such as the United States has been to treat the River and its tributaries as a unit.

FOOTNOTES TO CHAPTER II, SECTION A

1. [1929] P.C.I.J., ser. A, No. 23, at 27.
2. 1 L. Oppenheim, *International Law* 464-465 (8th ed., H. Lauterpacht, 1955).
3. *Id.* at 474-475.
4. 1 *International Law* 556-557 (2nd ed. 1970).
5. *Id.* at 558.
6. J.L. Brierly, *The Law of Nations* 226, 230 (6th ed., H. Waldock, 1963).
7. *At* 150-151 (1931).
8. *Les Relations Internationales de Voisinage*, 79 *Hague Recueil* 77 at 115 and 117 (1951).
9. *L'Utilisation des Eaux des Bassins Fluviaux Internationaux*, 16 *Revue Egyptienne de Droit International* 23, 26 (1960).
10. *L'Utilisation Industrielle des Fleuves Internationaux*, 125 *Hague Recueil* 337, 358 (1968).
11. *At* 325, 329-330 (1968).
12. *Diritto Internazionale della Navigazione i Fiumi Internazionali* 20-25 (undated).
13. *Principi di Diritto delle Acque nel Sistema Giuridico Cinese* (1959).
14. *The Non-Navigational Uses of International Rivers* (1965).
15. *The River Basin in History and Law* 152 (1967).
16. *Rivers in International Law* 25, 272-274 (1959).

17. Institute of State and Law, Academy of Sciences of the U.S.S.R., International Law 236 (undated); J. Cúth, *Medzinárodné Rícky* 271 (1964); E. Glaser et al., *Drept International Fluvial* 279 (1973).
18. E.g., I G. Schwarzenberger, International Law 218 (3rd ed. 1957).
19. E.g., P. Reuter, *Droit International Public* 271-272 (4th ed. 1973).
20. The Nile Regime, 17 *Revue Egyptienne de Droit International* 70, 99 (1961).
21. International River Law for Non-Navigable Rivers with Special Reference to the Nile, 23 *Revue Egyptienne de Droit International* 39, 51 (1967).
22. *Id.* at 53.
23. 49 *Annuaire de l'Institut de Droit International*, Part II at 382 (1961).
24. 24 *id.* 365 (1911).
25. Report of the Fifty-Second Conference Held at Helsinki, August 14th to August 20th, 1966, at 484 (1966).
26. Opened for signature at Geneva, 9 Dec. 1923, 36 L.N.T.S. 75.
27. Art. 5.
28. Report of the Inter-American Juridical Committee on the work accomplished during its 1965 meeting 7, Doc. OEA/Ser.I/VI.1, CIJ-83 (1966), [1974] 2 Y.B. Int'l L. Comm'n, Part 2, at 350, U.N. Doc. A/CN.4/SER.A./1974/Add.1 (Part 2) (1976).
29. Asian-African Legal Consultative Committee, Report of the Fourteenth Session Held in New Delhi from 10th to 18th January, 1973, at 99.

30. Resolution LXXII, 24 Dec. 1933, in The International Conferences of American States, First Supplement 1933-40, at 88 (1940).
31. Legal Aspects of the Use of Systems of International Waters with Reference to Columbia-Kootenay River System under Customary International Law and the Treaty of 1909: Memorandum of the State Department, S. Doc. No. 118, 85th Cong., 2d Sess. 89 (1958). This has generally been regarded as the definitive statement of the position of the United States in these matters and is reproduced in 3 M. Whiteman, Digest of International Law 939 (1964).
32. (France v. Spain) (1957), 24 I.L.R. 101, 125 (1957).
33. Department of Economic and Social Affairs, Natural Resources/Water Series No. 1, Management of International Water Resources: Institutional and Legal Aspects 9-10, U.N. Doc. A/ST/ESA/5 (1975).
34. U.N. Doc. A/E/C.7/35 (1972).
35. The Law of the Non-Navigational Uses of International Watercourses: Replies by Governments to the Commission's Questionnaire, U.N. Doc. A/CN.4/294, at 8 (1976).
36. See document cited supra note 35 and Report of the International Law Commission to the General Assembly, 31 GAOR Supp. No. 10, at 376, U.N. Doc. A/31/10 (1976).
37. Ibid.
38. Id. at 377.
39. Ibid.
40. Id. at 377-378.
41. First Report on the Law of the Non-Navigational Uses of International Watercourses by Mr. Kearney, U.N. Doc. A/31/10 1976.
44. Id. at 387.

45. 31 GAOR C.6 (13th to 33d meetings), U.N. Docs. A/C.6/SR.13 to SR.33 (prov. ed. 1976).
46. The representative of Israel stated that "his delegation has submitted to the International Law Commission its observations on the scope of the term 'international watercourse', which it considered synonymous with the term 'drainage basin' where such a basin included only the waters flowing into a common terminus." 31 GOAR C.6 (28th meeting) 7, U.N. Doc. A/C.6/31/SR.28 (prov. ed. 1976).
47. Report of the Fifty-second Conference Held at Helsinki, August 14th to August 20th, 1966, at 484 (1967); reprinted in A. Garretson, R. Hayton, and C. Olmstead, The Law of International Drainage Basins 779 (1967) and [1974] 2 Y.B. Int'l L. Comm'n, 357, U.N. Doc. A/CN.4/SER.A/1974/Add.1 (Part 2) (1976).
48. Legal problems relating to the non-navigational uses of international watercourses: Supplementary report by the Secretary-General, para. 326, U.N. Doc. A/CN.4/274 (1974), [1974] 2 Y.B. Intl L. Comm'n, Part 2, at 324, U.N. Doc. A/CN.4/SER.A/1974/Add.1 (Part 2) (1976).
49. Department of State Press Release, 6 May 1954, 31 Dep't State Bull. 132 (1954).
50. Ms. doc. "The Jordan Valley Plan," 30 Sep. 1955, at 3 (on file in A.I.D.).

B. The Governing Principle of Equitable Utilization or Apportionment of the Waters of International Rivers

1. The Discredited Harmon Doctrine.

In the Nineteenth Century, the United States was responsible for an alleged principle regarding the apportionment of the waters of international rivers, which had much to do with delaying the adoption of more enlightened views regarding the sharing of such waters.

In 1895, the Attorney General of the United States was asked for his opinion on the right of the United States to divert waters from the Rio Grande where it flowed through the territory of the United States before it became the boundary between the United States and Mexico. Attorney General Harmon replied that the United States, the upper riparian, had full and unfettered rights to divert the waters of this international river. He wrote in his opinion:

The fundamental principle of international law is the absolute sovereignty of every nation, within its own territory. Of the nature and scope of sovereignty with respect to judicial jurisdiction, which is one of its elements, Chief Justice Marshall said (Schooner Exchange v. McFaddon, 7 Cranch, p. 136):

"The jurisdiction of the nation within its own territory is necessarily exclusive and absolute. It is susceptible of no limitation not imposed by itself. Any restriction upon it, deriving validity from an external source, would imply a diminution of that sovereignty to the extent of the restriction, and an investment of that sovereignty to the same extent in that power which could impose such restriction.

All exceptions, therefore, to the full and complete power of a nation within its own territories must be traced up to the consent of the nation itself. They can flow from no other legitimate source."¹

This view, which was otherwise unsupported by authority, has long since been rejected by the United States, the very country in which it had its origin. The Legal Adviser of the Department of State reviewed in 1942 the international agreements relating to "the use of rivers and lakes having an international aspect" and concluded:

It [the review] is by no means comprehensive but is believed to be sufficient to indicate the trend of thought concerning the adjustment of questions relating to the equitable distribution of the beneficial uses of such waters. No one of these agreements adopts the early theory advanced by Attorney General Harmon of the right of a state to appropriate all of the water, within its jurisdiction, of a stream which passes from its territory to a subjacent state. On the contrary, the rights of the subjacent state are specifically recognized and protected by these agreements.²

The Legal Adviser of the Department of State asserted that the rights of the United States and Mexico with respect to the Colorado could not "be determined by the simple criterion that the water has its source in the United States and may be utilized in this country. Such a rule, if sound or if applied, would deprive all subjacent States of the normal and natural benefits of streams the world over. Our purpose should be to find a reasonable equation by which rights to the water may be equitably distributed."³

The United States expressed its position on the law in a statement to the General Assembly in connection with the Principles of Friendly Relations and Cooperation among States:

. . . In the absence of specific treaty provisions to the contrary, the trend of the law is that no state may claim to use the waters of an international river in such a way as to cause material injury to the interests of other states, nor may a state oppose use of river waters by other states unless this causes material injury to itself. . . .⁴

The conclusions that are reached in the memorandum of the Department of State on "Legal Aspects of the Use of Systems of International Waters," to which reference has been made at page 21 supra, are also a denial of the Harmon Doctrine.

There is no better way to conclude this survey of the United States position with respect to the Harmon Doctrine than by quoting the observation of Secretary of State Dean Acheson that "This is hardly the kind of legal doctrine that can be seriously urged in these times."⁵

The best evidence that the Harmon Doctrine has no past or present validity is furnished by the wealth of authority laying down rules of one character or another about the duties of one riparian to a co-riparian within an international drainage basin or with respect to an international river.

2. The Principle of Equitable Utilization or Apportionment.

The prevailing rule of customary international law today is that the riparian states of an international river or basin states of an international drainage basin (depending on the frame of reference adopted) are under an obligation to effect an equitable sharing or apportionment of the waters that they share or of the uses of those waters.

The concept of equitable sharing owes a great deal to judicial precedents furnished by cases in which subordinate entities in federal and other states have been called upon to share the waters of rivers running through the territories of those entities. The principle of equitable apportionment is to be found in a line of United States cases dealing with inter-state water disputes, beginning with Kansas v. Colorado⁶ in 1907. The Supreme Court of Germany in 1927 declared in Württemberg and Prussia v. Baden,

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 neighbouring State, but also the relation of the advantage gained by one to the injury caused to the other.⁷

The same principle of equitable sharing has been thought appropriate for employment in India. The Commission established in 1939 under the chairmanship of Sir Bengal Rau (later a judge of the International Court of Justice) to deal with the dispute between the Provinces of Sind

and Punjab formulated principles governing the rights of States and Provinces with respect to watercourses flowing from one to another. All of the participants agreed on a set of principles, of which one has particular importance for our purposes:

(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).⁸

The principle of equitable apportionment has continued to be the governing principle for the allocation of waters between the states of India. In a recent study conducted under the auspices of the Indian Law Institute at the request of the Ministry of Irrigation and Power, Government of India, the conclusion was reached that:

The dominant principle employed in the resolution of interstate water disputes in the pre-independent and post-independent era in India has been the equitable allocation of waters among the states inter se - - 'each unit getting a fair share of the water of the common river.'⁹

The most important recent decision on the international plane with respect to an international river is the Lake Lanoux Arbitration between France and Spain.¹⁰ While the award is often construed to reflect a rule giving priority to the needs of the upper riparian, the tribunal was at pains to point out that:

. . . according to the rules of good faith, the upstream State is under the obligation to take into consideration the various interests involved, to seek to give them every satisfaction compatible with the pursuit of its own interests, and to show that in this regard it is genuinely concerned to reconcile the interests of the other riparian State with its own.¹¹

That statement articulates one of the consequences of the principles of equitable utilization, apportionment, or sharing.

The International Court of Justice has not of late had occasion to deal with any disputes about fresh water but it has, in several recent cases dealing with salt water, emphasized the importance of allocation of resources according to economic and social needs and dependency and in accordance with equitable principles. In the Fisheries Case (United Kingdom v. Norway),¹² the Court, in upholding the legality of the straight baselines claimed by Norway, articulated as one consideration that ought to be weighed in the balance "certain economic interests peculiar to a region, the reality and importance of which are clearly evidenced by a long usage."¹³ This principle found its way into the Geneva Convention on the Territorial Sea and the Contiguous Zone of 1958, Article 4, paragraph 4, of which provides:

Where the method of straight baselines is applicable under the provisions of paragraph 1, account may be taken, in determining particular baselines, of economic interests peculiar to the region concerned, the reality and importance of which are clearly evidenced by long usage.¹⁴

This same theme is presented in the North Sea Continental Shelf Cases,¹⁵ where the International Court advised the parties that "delimitation [of the continental shelf boundary] is to be effected by agreement in accordance with equitable principles, and taking account of all the relevant circumstances."¹⁶ And finally, in the Fisheries Jurisdiction Case (United Kingdom v. Iceland),¹⁷ the International Court actually employed the concept of "equitable apportionment" in connection with fisheries resources. The Court stated:

In the fresh negotiations which are to take place on the basis of the present Judgment, the parties will have the benefit of the above appraisal of their respective rights, and of certain guidelines defining their scope. The task before them will be to conduct their negotiations on the basis that each must in good faith pay reasonable regard to the legal rights of the other in the waters around Iceland outside the 12-mile limit, thus bringing about an equitable apportionment of the fishing resources based on the facts of the particular situation, and having regard to the interests of other States which have established fishing rights in the area. It is not a matter of finding simply an equitable solution, but an equitable solution derived from the applicable law. As the Court stated in the North Sea Continental Shelf cases:

". . . it is not a question of applying equity simply as a matter of abstract justice, but of applying a rule of law which itself requires the application of equitable principles" (I.C.J. Reports 1969, p.47, para. 85).¹⁸

The balancing of interests that is to be accomplished is similar to that which must be effected in connection with an equitable sharing of the waters of an international river:

Neither right is an absolute one: the preferential rights of a coastal State are limited according to the extent of its special dependence on the fisheries and by its obligation to take account of the rights of other States and the needs of conservation; the established rights of other fishing States are in turn limited by reason of the coastal State's special dependence on the fisheries and its own obligation to take account of the rights of other States, including the coastal State, and of the needs of conservation.¹⁹

It cannot be contested that the principle of "equitable utilization" or "equitable apportionment" has become entrenched in customary international law through these pronouncements of the International Court. This principle has the same relevance to the sharing of the waters of an international river that it does to the sharing of the waters of the marine or subsoil resources of the seas.

As international rivers are usually regulated by treaties concluded by the riparians or basin states, there is only limited evidence of the state of contemporary international law concerning international rivers to be found in multilateral treaties and international instruments and in attempted codifications. It is only in recent years that express reference has been made to the concept of equitable sharing or equitable apportionment. For example,

the "Declaration of Montevideo concerning the industrial and agricultural use of international rivers," approved by the Seventh Inter-American Conference in 1933, in effect called for an equitable sharing without using that term:

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 on the margin under its jurisdiction.

In consequence, no State may, without the consent of the other riparian State, introduce into watercourses 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.²⁰

More recently, the States of the River Plata Basin (Argentina, Bolivia, Brazil, Paraguay, and Uruguay) adopted Resolution No. 25, "Declaration of Asunción on the Use of International Rivers," which provided in part:

1. In contiguous international rivers, which are under dual sovereignty, there must be a prior bilateral agreement between the riparian States before any use is made of the waters.

2. In successive international rivers, where there is no dual sovereignty, each State may use the waters in accordance with its needs provided that it causes no appreciable damage to any other State of the Basin.²¹

Argentina has also concluded with Chile, Uruguay, and Bolivia instruments stating in general terms that waters of international rivers are to be "utilized in a fair and reasonable manner."²²

There has never been a codification on a general international basis of the law concerning international rivers and the waters of international drainage basins. The work of the United Nations International Law Commission on the law of "Non-navigational uses of international watercourses" is still in its preliminary stages. As indicated above, the International Law Commission has considered the definition of "international watercourses" and has decided to defer definitional questions until it has moved on to the substantive part of its work.²³ Its consideration of this question will be further slowed by the fact that the former Special Rapporteur on the subject, Mr. Richard D. Kearney, has left the Commission, and that a new Special Rapporteur, Mr. Stephen M. Schwebel, will have to take up this work.

The Asian-African Legal Consultative Committee, working through a Sub-Committee, considered the law of international rivers, but the Sub-Committee was not able to reach agreement on a set of propositions to be submitted to the Committee. But the Rapporteur on the subject (Dr. Ibrahim Shihata, an Egyptian who is now the Director-General of the OPEC Special Fund) took the same approach in his Proposition III as was taken in the Helsinki Rules, adopted by the International Law Association in 1966:

1. Each basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin.

2. What is a reasonable and equitable share is to be determined by the interested basin States by considering all the relevant factors in each particular case.

3. Relevant factors which are to be considered include in particular:

- (a) the economic and social need of each basin State and the comparative costs of alternative means of satisfying such needs.
- (b) the degree to which the needs of a basin State may be satisfied without causing substantial injury to a co-basin State.
- (c) the past and existing utilization of the waters.
- (d) the population dependent on the waters of the basin in each basin State.
- (e) the availability of other water resources.
- (f) the avoidance of unnecessary waste in the utilization of waters of the basin.
- (g) the practicability of compensation to one or more of the co-basin States as a means of adjusting conflicts among users.
- (h) the geography of the basin.
- (i) the hydrology of the basin.
- (j) climate affecting the basin.²⁴

The Inter-American Juridical Committee likewise tried its hand at a "Draft Convention on the Industrial and Agricultural Use of International Rivers and Lakes" during the period 1963-1965. In its revised Draft Convention of 1965, it stipulated that:

Article 4

The right of a state to industrial or agricultural utilization of the waters of an international river or lake that are under its sovereignty does not imply non-recognition of the eventual right of the other riparian States.

Article 5

The utilization of the waters of an international river or lake for industrial or agricultural purposes must not prejudice the free navigation thereof in accordance with the applicable legal rules, or cause substantial injury, according to international law, to the riparian States or alterations to their boundaries.

Article 6

In cases in which the utilization of an international river or lake results or may result in damage or injury to another interested State, the consent of that interested State shall be required, as well as the payment or indemnification for any damage or harm done, when such is claimed.²⁵

Although this text does not expressly mention equitable apportionment or sharing, the principles enunciated in Articles 4 to 6 add up to limitations on the rights of riparians and call for a sharing of the use or uses of an international river.

It must be emphasized that neither the Asian-African formulation nor the Inter-American one ever entered into force, and the weight that they carry is only that of unperfected drafts.

At the United Nations Conference on the Human Environment held at Stockholm in 1976, one of the Principles adopted was that:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.²⁶

Resources include water, and the requirement that activities in one state not cause harm to the environment of another state (sic utere tuo ut alienum non laedas), when reciprocally applied, results in an equitable apportionment of benefits. Recommendation 51(b) (iii) of Stockholm is more specific in its reference to international drainage basins:

The net benefits of hydrologic regions common to more than one national jurisdiction are to be shared equitably by the nations affected;²⁷

An Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States, convened under the auspices of the United Nations Environment Programme,²⁸ has been attempting to give more content to these concepts. At the Third Session of this Group, held in Nairobi in January of 1977, the Working Group reached consensus on the following text of an article on "Duty to co-operate" to be incorporated in "Draft Principles of Conduct in the Field of the Environment for the Guidance of States in the Conservation and Harmonious Utilization of Natural Resources Shared by Two or More States":

States have a duty to co-operate in the field of the environment concerning the conservation and harmonious utilization of natural resources shared by two or more States. Accordingly, consistent with the concept of equitable utilization of shared natural resources, States should co-operate with a view to controlling, preventing, reducing and eliminating adverse environmental effects which may result from the utilization of such resources. Such co-operation shall take place on an equal footing and due account shall be taken of the sovereignty and interests of the States concerned.²⁹

What is significant about this draft provision, which is directed primarily toward the environment, is that it accepts a principle of "equitable utilization of shared natural resources," which is equivalent to equitable apportionment when there has to be an actual division of the waters themselves.

The multiplicity of bilateral and plurilateral treaties that states have concluded with respect to international rivers offers further evidence that states feel under a certain sense of obligation to work out an apportionment of the use of waters of international rivers. Of course, the existence of a number of bilateral treaties on a particular subject is not necessarily indicative of the fact that the treaties reflect customary international law; they may indeed reflect the desire of states to depart from customary international law -- to contract out of it or to exercise a liberty afforded by international law to work out their own arrangements. But the fact that many of the important rivers of the world are regulated by treaties concluded by the riparians is some indication at least that these nations are responding to some sort of imperative created by the law. Space does not allow -- and patience would not abide -- a full listing of these treaties, and reference to previous compilations must suffice. These include:

United Nations Economic Commission for Europe,
Committee on Electric Power, Legal Aspects of the
Hydro-Electric Development of Rivers and Lakes of
Common Interest 95-170, U.N. Doc. E/ECE/136, E/ECE/EO/98
Rev.1 (1952).

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International Rivers: Report of the Secretary-
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There is not an abundance of international rivers in the Middle East, and local practice is not particularly enlightening, although it deserves some passing mention.

In 1929, Egypt and the United Kingdom exchanged notes in which the former country stated that it would,

. . . be willing to agree with His Majesty's Government upon such an increase of this quantity [of Nile waters for the Sudan] as does not infringe Egypt's natural and historical rights in the waters of the Nile and its requirements of agricultural extension, subject to satisfactory assurances as to the safeguarding of Egyptian interests as detailed in later paragraphs of this note.³⁰

while the United Kingdom, speaking on behalf of the Sudan, stated that it acknowledged "the natural and historical rights of Egypt in the waters of the Nile."³¹ Egypt and the United Kingdom, "in accordance with the spirit of the Nile Waters Agreement of 1929," agreed in 1949 to construct a dam at Owen Falls in Uganda and stipulated that the discharges from the dam were to be regulated by agreement between the Egyptian and Ugandan authorities.³² Shortly thereafter, the two governments concluded a further agreement for cooperation in meteorological and hydrological surveys, whereby Uganda was to collect hydrological data "from all the areas of the basin which feeds the Nile, whether in the

East African territories or in the Belgian Congo"³³ --
an undertaking which is significant for its treatment of
the Nile River and its sources as a unit.

The Agreement of 1929 only regulated a partial use of
the natural river, but it was not until thirty years later,
in 1959, that the United Arab Republic and the Republic of
Sudan concluded an Agreement for the Full Utilization of
the Nile Waters.³⁴ In this agreement, the two countries
agreed upon the established rights to waters prior to the
construction of works on the River and upon formulae for
the division of the water supplies made available through
the improvements.³⁵ The two countries agreed to adopt a
concerted view in case any questions connected with the Nile
required negotiations with other riparian states that might
be contemplating works on the River or might lay claims to
waters from the river.³⁶

The comment on the treaty of 1959 which came from that
part of the world regarded the agreement as being an appli-
cation of the principle of equitable apportionment. Badr
wrote:

Measuring the respective interests of
co-riparian states in an equitable manner,
balancing the advantages gained by one state
against the injury, or likely injury, caused
to another, has always been a guiding princi-
ple in solving disputes regarding the waters
of common rivers. This was well illustrated
by the Supreme Court of the United States of
America in one of the most recent decisions
on the subject in Nebraska v. Wyoming (325
U.S., 598. 1944), where the court took occa-

sion to interpret the "priority rule" with due respect for the principle of "equitable apportionment" which more and more is coming to be accepted as the guiding principle in the settlement of such disputes.³⁷

Fahmi lays down the rule that:

The waters of an international river shall be equitably apportioned within the watershed of the river.³⁸

And Hosni says of the Agreement of 1959:

The principle of established rights therefore entered as an element in the determination of an equitable right in the 1959 Agreement, and the final share was a question of paying regard to many considerations in which benefits had to be carefully weighed against injuries, i.e. the true essence of the principle of sic utere tuo or equitable apportionment.³⁹

The Tigris and Euphrates Rivers were the subject of an agreement between Iraq and Turkey in 1946, whereby each work on the Rivers was to be the subject of a separate agreement.⁴⁰ And in 1926 France, acting on behalf of Syria, and Turkey agreed to plan a scheme for supplying the requirements of the districts irrigated by the waters of the Kuveik and the requirements of Aleppo by increasing the supply of water from the Kuveik or by taking water from the Euphrates in Turkish territory or both.⁴¹

The principle of equitable apportionment thus seems to have been given effect in the treaties concerning international rivers that have been concluded by the neighbors of Jordan and of Israel. There is no distinctive regional

international law; what is done in the area is simply an application of principles of general application throughout the world.

The United States follows the rule of equitable apportionment on the international plane with respect to international rivers, just as the United States Supreme Court does in resolving inter-state disputes concerning the waters of rivers. The expressions that have been used by various officials of the United States with respect to the obligations of states under customary international law are "equitable distribution of the beneficial uses of such waters";⁴² "equitable apportionment of waters of international rivers";⁴³ "reasonable equation by which rights to the water may be equitably distributed."⁴⁴ And the same formula of listing of factors to be taken into account appears in the Memorandum of the Department of State of 1958, where it is concluded that:

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.⁴⁵

The practice of the United States admittedly does not make international law, but more than usual interest attaches to these views in light of the considerations that the United States (1) is a riparian of a number of international rivers that it shares with Canada and Mexico; (2) is both an upper and lower riparian and thus must, from the standpoint of national interest, maintain a balanced view; and (3) has on a number of occasions articulated and abided by a rule that runs counter to its immediate interest in the particular case.

What has now come to be regarded as the classic statement of the principle of equitable sharing of uses is the Helsinki Rules, which were adopted by the International Law Association in 1966.⁴⁶ The International Law Association is a private organization of international lawyers, but the International Rivers Committee contained a number of government legal advisers from both upper and lower riparian states and the Rules were a hard-fought compromise of differing governmental perspective.

The central principle of the Helsinki Rules is

Article IV:

Each basin State is entitled, within its territory, to a reasonable and equitable share in the beneficial uses of the waters of an international drainage basin.

The Committee experienced great difficulty in laying down with greater precision what is "a reasonable and equitable share" and had to content itself with listing the factors that must be taken into account. These are listed in

Article V:

(1) What is a reasonable and equitable share within the meaning of Article IV is to be determined in the light of all of the relevant factors in each particular case.

(2) Relevant factors which are to be considered include, but are not limited to:

- (a) the geography of the basin, including in particular the extent of the drainage area in the territory of each basin State;
- (b) the hydrology of the basin, including in particular the contribution of water by each basin State;
- (c) the climate affecting the basin;
- (d) the past utilization of the waters of the basin, including in particular existing utilization;
- (e) the economic and social needs of each basin State;
- (f) the population dependent on the waters of the basin in each basin State;
- (g) the comparative costs of alternative means of satisfying the economic and social needs of each basin State;
- (h) the availability of other resources;
- (i) the avoidance of unnecessary waste in the utilization of the waters of the basin;
- (j) the practicability of compensation to one or more of the co-basin States as a means of adjusting conflicts among uses; and

(k) the degree to which the needs of a basin State may be satisfied, without causing substantial injury to a co-basin State.

(3) The weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors. In determining what is a reasonable and equitable share, all relevant factors are to be considered together and a conclusion reached on the basis of the whole.

Account must also be taken of Article VIII, which deals with priority of use:

1. An existing reasonable use may continue in operation unless the factors justifying its continuance are outweighed by other factors leading to the conclusion that it be modified or terminated so as to accommodate a competing incompatible use:

2. (a) A use that is in fact operational is deemed to have been an existing use from the time of the initiation of construction directly related to the use or, where construction is not required, the undertaking of comparable acts of actual implementation.

(b) Such use continues to be an existing use until such time as it is discontinued with the intention that it be abandoned.

3. A use will not be deemed an existing use if at the time of becoming operational it is incompatible with an already existing reasonable use.

And finally, although the term "equitable apportionment" or "equitable sharing" was not used by the Institut de Droit International when it adopted its resolution at Salzburg on the "Utilization of Non-Maritime International Waters (except for navigation),"⁴⁷ the Institute did spell out as the governing principle what amounts to that very doctrine.

Articles 2, 3, and 4 of the Resolution provide:

Article 2

Every State has the right to utilize waters which traverse or border its territory, subject to the limits imposed by international law and, in particular, those resulting from the provisions which follow.

This right is limited by the right of utilization of other States interested in the same watercourse or hydrographic basin.

Article 3

If the States are in disagreement over the scope of their rights of utilization, settlement will take place on the basis of equity, taking particular account of their respective needs, as well as of other pertinent circumstances.

Article 4

No State can undertake works or utilization of the waters of a watercourse or hydrographic basin which seriously affect the possibility of utilization of the same waters by other States except on condition of assuring them the enjoyment of the advantages to which they are entitled under article 3, as well as adequate compensation for any loss or damage.

Allocation of use "on the basis of equity, taking particular account of their respective needs, as well as of other pertinent circumstances" is of the very essence of "equitable utilization" or "equitable apportionment."

On the basis of this survey, it may be said with a good deal of confidence that the rule of "equitable utilization" or "equitable apportionment" is the governing principle in the allocation of the waters of an international river or drainage basin. However, general principles do not decide specific cases, and the concept of equitable apportionment obviously leaves the parties much latitude

in their negotiations and endows any third-party decision-maker, such as an arbitral tribunal, with freedom to exercise its discretion in determining what is the best arrangement rather than what arrangement is required by law.

FOOTNOTES TO CHAPTER II, SECTION B

1. 21 Op. Att'y Gen. 274, 281-282 (1898).
2. 3 M. Whiteman, Digest of International Law 950 (1964).
3. Memorandum to the Legal Adviser, 23 Nov. 1942, id. at 953-954.
4. 47 Dep't State Bull. 972, 977 (1962), 3 M. Whiteman, Digest of International Law 943 (1964).
5. Treaty with Mexico Relating to Utilization of Waters of Certain Rivers: Hearings Before the Senate Comm. on Foreign Relations, 79th Cong., 1st Sess., Part 5, at 1762 (1945).
6. 206 U.S. 46 (1907).
7. 4 Ann. Dig. 128 (1927-28). The language is that of the digest, not that of the Supreme Court.
8. Report of the Indus (Rau) Commission 10-11 (1942). The agreement designed to give effect to these principles had not come into full effect before the partition of the subcontinent.
9. S.N. Jain, A. Jacob, and S.C. Jain, Interstate Water Disputes in India (Suggestions for Reform in Law) 170 (1971).
10. 24 I.L.R. 101 (1957).
11. Id. at 139.
12. [1951] I.C.J. 116.
13. Id. at 133.
14. Done at Geneva, 29 Apr. 1958, 15 U.S.T. 1606, T.I.A.S. No. 5639.
15. (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands), [1969] I.C.J. 3.

16. Id. at 53.
17. Merits, Judgment, [1974] I.C.J. 3.
18. Id. at 33.
19. Id. at 31.
20. 24 Dec. 1933, Pan-American Union, Seventh International Conference of American States, Plenary Sessions, Minutes and Antecedents 114 (1933); [1974] 2 Y.B. Int'l L. Comm'n, Part 2, at 212, U.N. Doc. A/CN.4/SER.A/1974/Add.1 (Part 2) (1976).
- 21 Act of Asunción on the use of international rivers, signed by the Ministers for Foreign Affairs of the States of the River Plate Basin at their Fourth Meeting held from 1 to 3 June 1971, [1974] 2 Y.B. Int'l L. Comm'n, Part 2, at 324, U.N. Doc. A/CN.4/SER.A/1974/Add.1 (Part 2) (1976).
22. Act of Santiago concerning hydrologic basins, signed on 26 June 1971 (Argentina-Chile); Declaration on water resources, signed at Buenos Aires on 9 July 1971 (Argentina-Uruguay); Act of Buenos Aires on Hydrologic Basins, signed on 12 July 1971, id. at 324-325.
23. Report of the International Law Commission to the General Assembly, 31 GAOR Supp. No. 10, at 383, 387, U.N. Doc. A/31/10 (1976).
24. Report of the Fourteenth Session Held in New Delhi from 10th to 18th January, 1973, 99 at 100-101.
25. 1 Final Report of the Fourth Annual Meetings of the Inter-American Economic and Social Council 48, Doc.OEA/Ser.H/XII-11 (1966) [1974] 2 Y.B. Int'l L. Comm'n, Part 2, at 349, U.N. Doc. A/CN.4/SER.A/1974/Add.1 (Part 2) (1976).

26. Declaration of the United Nations Conference on the Human Environment, Principle 21, Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972, at 5, U.N. Doc. A/CONF.48/14/Rev.1 (1973).
27. *Id.* at 6-7.
28. Pursuant to Decision 44 (III) of the Governing Council of UNEP, 30 GAOR Supp. No. 25, at 111, U.N. Doc A/10025 (1975).
29. Report of the Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States on the Work of Its Third Session Held at Nairobi from 10 to 21 January 1977, at 4, U.N. Doc. UNEP/IG.7/CRP.1 (1977).
30. Exchange of Notes between His Majesty's Government in the United Kingdom and the Egyptian Government in regard to the Use of the Waters of the River Nile for Irrigation Purposes, signed at Cairo, 7 May 1929, 93 L.N.T.S. 43, 44.
31. Note No. 2, *id.* at 116.
32. Exchange of Notes Constituting an Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of Egypt regarding the Construction of the Owen Falls Dam, Uganda, signed at Cairo, 30 and 31 May 1949, 226 U.N.T.S. 273.
33. Exchange of Notes Constituting an Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland (on behalf of the Government of Uganda) and the Government of Egypt regarding Co-operation in Meteorological and Hydrological Surveys in Certain Areas of the Nile Basin, signed at Cairo, 19 Jan., 28 Feb., and 20 Mar. 1950, 226 U.N.T.S. 287.
34. Agreement between the United Arab Republic and the Republic of Sudan for the Full Utilization of the

Nile Waters, done at Cairo, 8 Nov. 1959, 15 Revue
Egyptienne de Droit International 320 (1959).

35. Arts. I and II.
36. Art. V.
37. G. M. Badr, The Nile Waters Question: Background and Recent Development, 15 Revue Egyptienne de Droit International 94, 105 (1959).
38. A. Fahmi, International River Law for Non Navigable Rivers with Special Reference to the Nile, 23 id. 39, 53 (1967).
39. S. Hosni, The Nile Regime, 17 id. 70 (1961).
40. Protocol No. 1 relative to the Regulation of the Waters of the Tigris and Euphrates and of Their Tributaries to Treaty of Friendship and Neighbourly Relations between Iraq and Turkey, art. 4, signed at Ankara, 29 May 1946, 37 U.N.T.S. 226, 289.
41. Convention of Friendship and Good Neighbourly Relations between France and Turkey, signed at Angora, 30 May 1926, art. XIII, 54 L.N.T.S. 195, 203.
42. Memorandum of the Legal Adviser, 26 May 1942, 3 M. Whiteman, Digest of International Law 950 (1965).
43. Testimony of Assistant Legal Adviser, Department of State, in Hearings before the Senate Comm. on Foreign Relations on Treaty with Mexico Relating to Utilization of Waters of Certain Rivers, 79th Cong., 1st Sess., Part 5 at 1751 (1945).
44. Memorandum of the Legal Adviser, 23 Nov. 1942, 3 M. Whiteman, Digest of International Law 954 (1965).
45. Legal Aspects of the Use of Systems of International Waters with Reference to Columbia-Kootenay River System under Customary International Law and the Treaty

of 1909: Memorandum of the State Department, S. Doc. No. 118, 85th Cong., 2d Sess. 90 (1958).

46. Report of the Fifty-second Conference Held at Helsinki, August 14th to August 20th, 1966, at 484 (1967).
47. 49 Annuaire de l'Institut de Droit International, Part II, at 382-383 (1961).

C. Equitable Utilization or Equitable Apportionment as a Guide to the Allocation of the Waters of the Jordan River or Basin

The principle of "equitable utilization" or "equitable apportionment" taken by itself does not offer a sure or easy guide to the actual division of the waters of an international river or of an international drainage basin. It is more significant for what it denies than for what it affirms. The Helsinki Rules, the most ambitious attempt that has been made to give content to the concept, actually takes it little farther, but the Rules do at least provide a list of factors that should be taken into account in applying the criterion. They are a checklist of relevant considerations rather than rules of decision. It may be useful to comment briefly on these "relevant factors" listed in Article V of the Helsinki Rules with a view to determining how they might be given application in the allocation of the waters of the Jordan.

The geography of the basin, including in particular the drainage area in the territory of each basin state.

Applied to the Jordan, this factor calls for a determination of how much of the drainage basin of the Jordan lies in each state of the basin -- i.e. Lebanon, Syria, Jordan, and Israel. As noted elsewhere in this study,¹ the indeterminacy of the boundaries in the area and in particular the Israeli occupation of the West Bank would complicate this computation.

In areas where water supplies are short and water is used primarily for irrigation, the area of land that is capable of cultivation but is not being cultivated assumes particular importance.²

The hydrology of the basin, including in particular the contribution of water by each basin state. This criterion suggests a possible correlation between the water coming from a basin state and what that state should be entitled to.

In so far as Israel and Jordan alone are concerned -- and leaving out of account the other basin states -- each state is now appropriating the flow of Jordan Basin waters through its territory. Israel appropriates virtually the entire flow of the Jordan River itself down to and including Lake Tiberias. Jordan appropriates for the East Gohr Canal the waters of the Yarmuk, less the residual waters that are allowed to flow into Israel, and the waters of the wadis that flow into the Jordan River through the territory of Jordan. In essence, what water flows through Israel is appropriated by Israel; most of the water flowing through Jordan is appropriated by Jordan.

The climate affecting the basin: If one basin state benefits from ample rainfall and another does not, the arid state, all other things being equal, will have a greater need for water from an international river. Such considerations as the aridity of the area within the basin will point to emphasis on conservatory measures. The factor of climate

will presumably not weigh heavily in the balance in the present instance, as other considerations are of greater consequence.

The past utilization of the waters of the basin, including in particular existing utilization: It will be observed at once that this is only one factor to be taken into account and does not require that existing uses be satisfied before there is any further allocation of waters. There is further elaboration of this theme in Article VIII of the Helsinki Rules:

1. An existing reasonable use may continue in operation unless the factors justifying its continuance are outweighed by other factors leading to the conclusion that it be modified or terminated so as to accommodate a competing incompatible use.

2. (a) A use that is in fact operational is deemed to have been an existing use from the time of the initiation of construction directly related to the use or, where such construction is not required, the undertaking of comparable acts of actual implementation.

(b) Such a use continues to be an existing use until such time as it is discontinued with the intention that it be abandoned.³

Article VIII takes the matter little beyond Article V, paragraph (d), if any distance at all. It simply puts the burden of proof upon the new use as contrasted with the existing use. The Comment on Article VIII makes it clear that the text was intended as a compromise:

Some authorities take the position that, upon the initiation of a use, the user gains a vested right in the use and cannot be deprived of it except in rare cases and with full compensation. Other authorities take the contrary position that the fact that a use is an existing use is of no weight whatsoever in determining what is an equitable utilization. Neither approach seems persuasive because neither comes to grips with realities, including the dynamic character of water development by States and changing technology. The former freezes river development according to the requirements of the earlier user. Indeed, it is conceivable that, if a state moves quickly enough, it could appropriate all of the waters of a basin to the complete exclusion of the co-basin States. Such a result is hardly consistent with their equal status as co-basin States. . . .

On the other hand, failure to give any weight to existing uses can only serve to inhibit river development. A state is unlikely to invest large sums of money in the construction of a dam if it has no assurances of being afforded some legal protection for the use over an extended period of time. . . .

The rule stated in this Article reflects the current international attitude in this matter - a middle ground between the two extremes.⁴

This balancing of existing uses against other demands on water is what is done in interstate disputes over water in the United States. In Nebraska v. Wyoming,⁵ the Supreme Court said:

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.⁶

The priority that is to be given to existing uses is normally put in a qualified way. For example, the text prepared for a Sub-Committee of the Asian-African Legal Consultative Committee uses the same language as that of the Helsinki Rules but provides that an existing use yields only to a "more important incompatible use."⁷ The Indus Commission in 1942 laid down the rule that:

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 rights.⁸

And the Department of State publication on "Legal Aspects of the Use of Systems of International Waters" gives a priority to "Established lawful and beneficial uses," but the Comment explains that:

. . . [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.⁹

But priority of appropriation is never transformed into a vested right, except in so far as an existing use may be protected by a treaty concluded by the parties, in which event the law derives from the treaty rather than from customary international law.¹⁰

The issue of protecting existing uses does not appear to cause difficulties in the case of the Yarmuk and Jordan Rivers, inasmuch as there appears to be no thought of reducing the supplies of water respectively available to Jordan and Israel through the construction of the Maqarin Dam. Of course, if the whole matter of allocation of waters of the Jordan Basin were to be thrown open, then it would be necessary to determine what degree of protection would be given to existing uses. That question is not posed by the realities of the present situation.

The economic and social needs of each basin state:

The criterion is closely related to the test of the population dependent on the waters of the basin. As noted in connection with the discussion of the principle of equitable apportionment,¹¹ the International Court of Justice has alluded to the economic needs of states in the establishment of jurisdictional boundaries in the ocean. In the Fisheries Case (United Kingdom v. Norway),¹² such considerations affected the establishment of the baseline for the delimitation of the territorial sea of Norway. In the Fisheries Jurisdiction Case (United Kingdom v. Iceland),¹³ the Court

recommended that the "special dependence" of states on the fisheries be taken into account in the negotiation of an equitable apportionment of fisheries resources.

Economic and social needs are regarded as relevant in the draft prepared in the Sub-Committee of the Asian-African Legal Consultative Committee¹⁴ and in the Department of State legal memorandum of 1958.¹⁵ In addition to the criterion of dependency, the latter calls for

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.¹⁶

Fahmi alludes to the problem whether more weight should be given to population or to the quantity of land that might be irrigated:

. . . [S]hall the water be apportioned according to the land or according to the population or according to both? . . . But the true answer to that question depends upon the purpose for which water is used. If it is for sanitary purposes, apportionment must be according to the population. This, however, is a negligible amount of water. But if water is required for irrigation, land becomes the only factor to be taken into consideration.¹⁷

And if the primary weight is to be given to the area of land cultivated, then existing uses for purposes of irrigation assume a particular importance for the allocation of waters. If areas are presently under cultivation and are being irrigated in an economical manner, it would be difficult to deny water for the continued irrigation of those

areas. There is greater scope for equitable apportionment when new land is to be irrigated and placed under cultivation.

It will be observed that in the formulation of the Helsinki Rules, the reference to the economic and social needs is to those of the basin state; those needs are not limited to those of that portion of the state which actually falls within the drainage basin. The subject of the extra-basin diversion of waters will be taken up at a subsequent stage of this section.¹⁸

The population dependent on the waters of the basin in each basin state: This criterion is probably to be regarded as a subordinate element of the preceding one, as the economic and social needs of the population are of greater import and relevance than mere population statistics. Again, it is not clear whether it is population in the basin or the population of the riparian states in their entirety which counts.

The comparative costs of alternative means of satisfying the economic and social needs of each basin state: As water, which is not abundant within the Jordan valley, is of crucial importance to Israel and Jordan as well as to the other riparians, the need to consider alternative means of satisfying the needs of the states is not an important consideration. What was intended, of course, was to avoid a situation in which the cost of provision of water was out of proportion

to the cost of meeting the economic and social needs of a state by other means.

The availability of other resources: The other resources might be water or non-water ones. The other water resources could include water from other basins, ground water, or desalinated water from the sea. By other resources is meant the utilization of other resources in place of industrial or other undertakings which might consume an excessively large amount of water. This factor is at present of very little relevance in the case of the Jordan basin.

The avoidance of unnecessary waste in the utilization of waters of the basin: By storing up the flow of the Yarmuk River during the wet season, the Dam would make a positive contribution to the avoidance of waste of water. This factor would thus militate strongly in favor of the construction of the Dam. So far as allocation is concerned, both Israel and Jordan are doing their best to conserve water and to employ it economically, and this factor does not give an advantage to one country over the other.

The practicability of compensation to one or more of the co-basin states as a means of adjusting conflicts among uses: This does not seem to be required or practicable in the relations of Israel and Jordan, even if the two countries were at peace. There is, of course, to be a program of partial compensation for the use of water in Jordan's plans

to supply electricity generated at the power station on the Dam to the Syrian villages on the other side of the Yarmuk.

The degree to which the needs of a basin state may be satisfied without causing substantial injury to a co-basin state: If Jordan continues to allow the same quantity of water as in the past to flow down the Yarmuk River into Israel, there would be no "substantial injury to a co-basin state."

It remains to consider one final question posed by the pumping of water from the Jordan by Israel for delivery outside the basin through the National Water Carrier: Is a basin state ever entitled to utilize waters from an international drainage basin outside the basin? At first impression, it would seem that the concept that it is the "international drainage basin" which should form the unit within which allocations should be made would suggest a negative answer. But, as has apparently been contended by Israel, if a basin state is allocated a certain quantity of water on the basis of an equitable apportionment, there may be no requirement that the quantity of water actually be utilized within the basin. Once the allocation has been made, it is each state's own business what it does with it. To the extent that equitable apportionment is based on the needs of a basin state within the basin, the transfer of water outside the basin is pro tanto a denial of a need

within the basin. But to the extent that equitable apportionment is based on other factors not related to intra-basin needs -- such as the contribution of each basin state and the area of the basin in the territory of each basin state -- transfer of waters outside the basin is not a negation of such factors.

But beyond this, there has been some criticism of too rigid an adherence to the drainage basin concept. In the words of Professor Bourne, a Canadian expert on the law of international rivers:

The concept of the unified development of an international drainage basin, then, continues to attract attention. Its vitality is not surprising, for at its core lies a fundamental truth, the interdependence of communities that rely on common water resources. It cannot, however, be considered as being any more than hortatory, offering sound advice to co-basin states, telling them of the potentially rich returns from co-operative development. Perhaps the concept should be given a higher status, that of a prima facie rule of law; as such, it would require the comprehensive planning of the development of the drainage basin, but, being only a prima facie rule, it would not preclude consideration of extra-basin factors, even uses of water outside of its basin, when those factors could be shown to be relevant. But to elevate it into an absolute legal doctrine that would confine planning to the limits of a basin even though its waters might be best utilized elsewhere would be most undesirable. Instead of being a liberal and wise guide to co-basin states, the concept would then be a restrictive and intolerable rule.

A theory of international water law based on geography no longer will suffice. It ignores the fundamental fact that the problems of the utilization of water resources today involve economic and political factors

that transcend the limits of drainage basins. Moreover, it is a distortion of the essential ideas of community and good neighbourship, the foundation stones of this branch of law; for the community whose interests will be affected by the development of a drainage basin is usually composed of far more persons than those who live there.

This multiplicity of factors that may be taken into account provides no more certain a basis for allocation than does the general principle of equitable utilization. The principle and the factors are guideposts for negotiations and for third-party decision-makers, such as international tribunals, but they do not of themselves provide rules about how waters are allocated. One cannot think in the abstract of the allocation required by international law in terms of such-and-such a number of mcms for each riparian or basin state. The law merely indicates what the negotiators or decision makers should think about.

In short, international law does not stipulate exactly how much water is to be allocated to Jordan and to Israel and to the other states of the Jordan basin. That question remains an open one, governed only by certain guides to decision.

FOOTNOTES TO CHAPTER II, SECTION C

1. See Chapters I and V.
2. G. M. Badr, *The Nile Waters Question*, 15 *Revue Egyptienne de Droit International* 94, 102 (1959).
3. Report of the Fifty-second Conference Held at Helsinki, August 14th to August 20th, 1966, at 493 (1967).
4. *Id.* at 493-494.
5. 325 U.S. 589 (1945).
6. At 618.
7. Proposition VII, para. 1, Report of the Fourteenth Session Held in New Delhi from 10th to 18th January, 1973, 99 at 104.
8. Report of the Indus Commission, 1942, quoted in A. Fahmi, *International River Law for Non Navigable Rivers with Special Reference to the Nile*, 23 *Revue Egyptienne de Droit International* 39, 53, n. 46 (1967), leading the author to conclude that "Existing Allocations of arid lands shall be protected" (at 54).
9. *Legal Aspects of the Use of Systems of International Waters with Reference to Columbia-Kootenay System under Customary International Law and the Treaty of 1909: Memorandum of the State Department, S. Doc. No. 188, 85th Cong., 2d Sess. 90 (1958).*
10. E.g., Agreement between the United Arab Republic and the Republic of Sudan for the Full Utilization of the Nile Waters, done at Cairo, 8 Nov. 1959, art. 1, 15 *Revue Egyptienne de Droit International* 321 (1959).
11. See p. 39 *supra*.
12. [1951] I.C.J. 116.

13. (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands), [1969] I.C.J. 3.
14. Report of the Fourteenth Session Held in New Delhi from 10th to 18th January, 1973, 99 at 100-101.
15. Memorandum of the State Department cited supra note 9, at 90.
16. Conclusion 2(b) (6), *ibid.*
17. International River Law for Non Navigable Rivers with Special Reference to the Nile, 23 *Revue Egyptienne de Droit International* 39, 50 (1967).
18. See p. 72 *infra*.
19. C.B. Bourne, The Development of International Water Resources: The "Drainage Basin Approach," 47 *Canadian B. Rev.* 62, 86-87 (1969); to the same effect see R. K. Batstone, The Utilisation of the Nile Waters, 8 *Int'l & Comp. L. Q.* 523, 553-554 (1959).

CHAPTER III
APPLICABLE TREATIES

The early conventional arrangements with respect to the Jordan River were the result of treaties between France and Great Britain delimiting their respective spheres of interest. Under Article 8 of the Franco-British Convention on Certain Points Connected with the Mandates for Syria and the Lebanon, Palestine and Mesopotamia of 1920, the two countries agreed that:

Experts nominated respectively by the Administrations of Syria and Palestine shall examine in common within six months after the signature of the present convention the employment, for the purposes of irrigation and the production of hydro-electric power, of the waters of the Upper Jordan and the Yarmuk and of their tributaries, after satisfaction of the needs of the territories under the French mandate.

In connection with this examination the French Government will give its representatives the most liberal instructions for the employment of the surplus of these waters for the benefit of Palestine.

In the event of no agreement being reached as the result of this examination, these questions shall be referred to the French and British Governments for decision. . .¹

No agreement was in fact reached by the experts or the two governments.²

A commission to fix the boundaries between the Great Lebanon and Syria on the one side and Palestine on the other side rendered its report in 1922, and Great Britain and France

agreed upon the line fixed by the commissioners.³ Under that agreement,

The Government of Palestine or persons authorized by the said Government shall have the right to build a dam to raise the level of the Lakes Huleh and Tiberias above their normal level, on condition that they pay fair compensation to the owners and occupiers of the land which will thus be flooded.

and

Any existing rights over the use of the waters of the Jordan by the inhabitants of Syria shall be maintained unimpaired.⁴

It was also provided that the inhabitants of Syria and the Lebanon would have the same rights of fishing and of navigation on Lakes Huleh and Tiberias and on the Jordan River between the Lakes as the inhabitants of Palestine.

In 1926, the two countries concluded a further treaty,⁵ under which they agreed, among other things, that

All the inhabitants, whether settled or semi-nomadic, of both territories who, at the date of the signature of this Agreement enjoy grazing, watering or cultivation rights, or own land on the one or the other side of the frontier shall continue to exercise their rights as in the past.

and

The provisions of the Agreement of February 3rd, 1922, reserving fishing and navigation rights in the lakes of Tiberias and Huleh and the Jordan shall be extended to all the water courses in the ceded area.⁶

The question of the continuing force of these agreements was presented in connectin with the complaint of Syria against Israel's construction of a canal between the Jordan

and Lake Tiberias. General Bennike, the Chief of Staff of the U.N.T.S.O., alluded to the agreement of 7 March 1923 concerning the maintenance of existing rights of the inhabitants of Syria.⁷ The agreement was also relied upon by Syria in the ensuing debate in the Security Council,⁸ but Mr. Eban replied as to the Treaty of 1926:

Israel does not inherit the international treaties signed by the United Kingdom as mandatory power, and I do not know if Syria inherits the treaties signed by France. That we should be bound in the context of Syria's attitude of belligerency and hostility to Israel to recognize a defunct treaty of good neighbourly relations between the United Kingdom and France is a thought of which the humorous possibilities are infinite.⁹

He likewise asserted that the 1923 Treaty did not "constitute a mandatory legal obligation on my Government" but that, if the Treaty were applicable, it discredited the Syrian case because it made the River Jordan an entirely Palestinian river and the two Lakes Palestinian lakes.¹⁰ Pursuing the Israeli theme of trying to get Arab states to conclude agreements with Israel, he went on:

My Government, as I have said, strongly doubts its obligation in principle to be bound by the treaty between France and Britain signed at Paris on 7 March 1923, but it is willing, ex gratia, to accept all the rights and obligations which would be incumbent upon it in this respect if the treaty were still valid. We are ready, both with respect to the frontier and with respect to the consequent provisions on water rights, in co-operation with the United Nations, to express this definite obligation in an appropriate legal instrument which would be binding upon my Government.¹¹

It is doubtful that the treaties of the twenties still continue to bind Israel as the successor to Palestine. While dispositive treaties creating régimes for territory are as likely as any to survive and bind the successor state, the two authorities who have addressed the question of succession as to these treaties are hesitant to assert that Israel is bound. O'Connell merely describes the history,¹² as does Hirsch.¹³ Louis regards the 1926 Treaty as being essentially political and has his reservations about the 1923 agreement as well. He concludes:

On est dès lors amené à faire des réserves pour ce qui concerne la garantie des droits acquis même conventionnels, en l'absence d'un règlement d'ensemble de la question palestinienne.¹⁴

Even if the treaties were still in force, it is difficult to see how they could stand in the way of an allocation of the waters of the Jordan and Yarmuk Rivers.

The Agreement of 1953 between the Republic of Syria and the Hashemite Kingdom of Jordan concerning the Utilization of the Yarmuk Waters¹⁵ laid out the terms for joint construction of a dam "near the Maqarin generating station in Syria," a reservoir, a generating station, and other works. The power which was to be generated would have been divided 75% to Syria and 25% to Jordan. Syria was to have had the use of water below the dam for the irrigation of Syrian land in the lower Yarmuk basin and eastward of Lake Tiberias or for other Syrian schemes, while Jordan was to have been permitted

to use the overflow from the dam for Jordanian irrigation schemes.¹⁶ The right of free movement across the frontier in the vicinity of the site¹⁷ facilitated the recent engineering surveys for the Maqarin Dam.

It has been reported in the press in June 1977 that a new agreement has been concluded between Syria and Jordan to "revive" cooperation on the Yarmuk. The agreement was described as providing:

Jordan is to provide 80 per cent of the workforce for the scheme, which will be supervised by a joint Jordanian-Syrian committee. The workers will have freedom of passage across the border. Machinery and vehicles imported for the project will be exempt from customs duty.¹⁸

FOOTNOTES TO CHAPTER III

1. Signed at Paris, 23 Dec. 1920, 22 L.N.T.S. 353.
2. 2 D.P. O'Connell, *State Succession in Municipal Law and International Law* 249 (1967).
3. Exchange of Notes Constituting an Agreement between the British and French Governments respecting the Boundary Line between Syria and Palestine from the Mediterranean to El Hammé, signed at Paris, 7 March 1923, 22 L.N.T.S. 363.
4. *Id.* at 372.
5. Treaty of Good Neighbourly Relations Concluded between the British and French Governments on behalf of the Territories of Palestine, on the one part, and on behalf of Syria and Great Lebanon, on the other part, signed at Jerusalem, 2 Feb. 1926, 56 L.N.T.S. 79.
6. Art. III. In 1931, Great Britain and France agreed that they would conclude a further agreement containing similar provisions with respect to waters along the boundary between Syria and Trans-Jordan, but no such agreement has come to light. See Annex to Protocol relative to the Settlement of the Frontier between Syria and the Jebel Druze on the one side and Trans-Jordan on the other side, signed at Paris, 31 Oct. 1931, in Report by His Majesty's Government in the United Kingdom of Great Britain and Northern Ireland to the Council of the League of Nations on the Administration of Palestine and Trans-Jordan for the Year 1931 at 209 (Colonial No. 75, 1932).
7. Annex III, U.N. Doc. S/3122 (1953).
8. 8 U.N. SCOR (633d meeting) 19, U.N. Doc. S/PV.633 (1953).

9. Id. at 26.
10. 8 U.N. SCOR (639th meeting) 19, U.N. Doc S/PV.639 (1953).
11. Id. at 26.
12. 2 D.P. O'Connell, *State Succession in Municipal Law and International Law* 248-249 (1967).
13. A.M. Hirsch, *Utilization of International Rivers in the Middle East*, 50 *Am. J. Int'l L.* 81, 91, n. 40 (1956).
14. J.V. Louis, *Les Eaux du Jourdain*, [1965] *Annuaire Français de Droit International* 832, 860-861.
15. Signed at Damascus, 4 June 1953, 184 U.N.T.S. 15.
16. Art. 8.
17. Art. 6.
18. 21 *Middle East Economic Digest*, No. 23, at 39 (1977).
A copy of the new agreement has not yet been made available.

CHAPTER IV
ENVIRONMENTAL ISSUES

On the basis of the information now available, the Maqarin Dam Project seems unlikely to raise significant problems in terms of international environmental law. According to the engineering surveys thus far completed, the proposed works are not likely to produce adverse environmental effects. In particular, there is no present indication that the construction of the Maqarin Dam will add substantially to the salinity of the Yarmuk or Jordan Rivers¹ or create any other type of environmental damage. Moreover, even if the project were to produce some adverse environmental impacts, it would be difficult for any state to support a legal claim on the basis of a violation of "international environmental law." There are no express agreements among the potentially affected states establishing any obligation to avoid or to prevent environmental harm, pollution, or increased salinity of Jordan Basin waters, and the law has not yet reached the point where it can be said that such obligations with respect to maximum salinity levels have been accepted in customary international law.

However, should construction of the Dam result in an increase in salinity, either in the Adasiye Triangle itself or in the Lower Jordan, this change in the quality of the water could conceivably give rise to legal claims by one

or more of the riparian states affected, couched in terms of a denial of equitable utilization of the waters. The theory of such a claim might be that rights to equitable apportionment of the Basin waters mean rights to waters of a certain standard of quality or utility and that any action decreasing that quality, unless accompanied by a compensating increase in quantity, is in effect a violation of the duty to supply that given amount of water. Since, as previously indicated, the principle of "equitable utilization" or "equitable apportionment" has achieved considerable standing in international law, such a claim might find some legal support. In this sense, the issue of pollution or salinity might become merged with that of allocation. It should also be recognized that, regardless of the validity of any strictly legal claims based upon any actual environmental impacts resulting from construction of the Dam, any perceived possibility of the project's producing environmental consequences could in itself raise serious political issues. Lower Lake Tiberias, the Jordan and, of course, the Dead Sea are already highly saline, and these conditions are clearly a potential source of future frictions. Any action which changes the status quo, particularly if it is seen as possibly increasing the salinity of the Jordan waters and of the Dead Sea, may focus attention on both the issue of increasing salinity and that of equitable sharing of water suitable for irrigation.

A. Relevant International Law

There appear to be no relevant international treaty or customary law rules (as distinguished from more general principles, such as that of equitable utilization) clearly proscribing or governing the construction in the Jordan Basin of works, such as the Maqarin Dam, which might potentially produce environmental consequences. While general rules of this nature are currently under international discussion and may well be in the process of formation, they have not yet reached a point where they could persuasively be argued to constitute legal obligations for either Jordan or Israel. Nevertheless, the states concerned could conceivably attempt to invoke certain types of legal arguments to support primarily political claims.

1. Specific Agreements Relating to Environmental Issues.

There is at present no express agreement between Israel and Jordan or any other Jordan Basin state relating either to environmental issues generally or to the question of pollution of Jordan Basin waters in particular.

However, such obligations could conceivably be implied, based upon the Johnston allocations. Thus, as previously suggested, Israel or Jordan might argue that certain features of the Johnston allocations, though not expressly embodied in a written agreement, reflect an understanding between the co-riparians, confirmed by long mutual obser-

vance and compliance. Assuming that the Johnston allocations have this effect, this understanding could be argued to imply that the parties must have regard to the quality of water that each must supply to the other. That is, the commitment to supply water must be construed to mean usable water. According to this argument, any decrease in the quality of the water supplied would in effect constitute a reduction of the amount of usable water supplied and, unless compensated for by an increase in quantity, be inconsistent with a commitment to supply a given amount of usable water.

Any such legal argument would have little support in precedent; international practice runs counter to the view that obligations may be created by draft agreements not accepted by the parties, and the doctrine of equitable apportionment says little concerning water quality. However, it is not impossible that such an argument might be raised by a lower co-riparian injured by an increase in the salinity of the waters.

2. General International Law.

There is very little general international law relevant to possible Jordan Basin environmental problems. International law relating to the environment generally, and to problems of international drainage basin pollution in particular, is still sparse and in an early formative

stage,² and it is unlikely that it could support specific claims by any Jordan Basin state for protection against or compensation for environmental harm.

The lack of general principles relating to water pollution has been broadly recognized. While there are now over sixty specific international agreements referring to water pollution, they do so in differing terms, and it is difficult to adduce from them any common principles concerning the obligation of basin or co-riparian states to avoid pollution or increased salinization of such waters.³ Indeed, the very existence of such a large number of varied treaties may, in the view of some, argue against the existence of either any obligation or common principle in the absence of specific treaty commitment. The most that can be said at the moment is that there appears to be a growing consensus, derived from broad acceptance of the principles of equitable utilization and the prohibition of a state's causing substantial harm to the environment, to the effect that pollution of the waters of an international drainage basin may, at least in certain circumstances, constitute an unreasonable interference with the use of the waters by other co-basin states or harm to those states and consequently be unlawful.⁴ But this principle is at best vague and inchoate, and more precise rules in this respect have yet to develop.

The types of authority and other usage and developments which might conceivably be invoked by Jordan or Israel may be briefly indicated:

The Stockholm Declaration. Principle 21 of the Declaration on the Human Environment, adopted by the 1972 Stockholm Conference, provides that:

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign rights to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their own jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.⁵

The substance of Principle 21 has been recited and referred to in a number of recent international agreements, resolutions, and other international instruments, including Article 30 of the Charter of Economic Rights and Duties of States adopted by the General Assembly in 1974.⁶ Indeed, it has been argued in some quarters that Principle 21 has received acceptance sufficient to make it a principle of customary international law. However, even if such a broad principle of responsibility can be said to have become recognized, it is expressed in very general terms and does not give rise to a range of specific rules concerning liability. In any event, it seems clearly accepted that any rules to govern the complex issues of drainage basin pollution will need more precise statement.

The Lake Lanoux Arbitration.⁷ An arbitration between France and Spain in 1957 -- one of the few international decisions raising questions of river pollution -- involved a claim by Spain that a French plan to divert for hydroelectric purposes certain waters of a river basin that eventually flowed into Spain would violate certain treaties and customary international law. The tribunal held in favor of France. However, in dicta, the arbitral tribunal suggested that its decision might have been otherwise if the water returned to the system by France after its use for hydroelectric purposes had been of such chemical composition, temperature, or other condition as to damage Spanish interests.⁸ The arbitration bound only France and Spain, and the opinion is generally limited to the particular treaties and facts involved. However, the tribunal's broad language as to pollution has occasionally been cited in support of the existence of a more general international duty to avoid water pollution.

The Helsinki Rules. The Helsinki Rules of the International Law Association⁹ define "water pollution" as "any detrimental change resulting from human conduct in the composition, content or quality of the waters of an international drainage basin."¹⁰ Subject to the overarching principle of equitable utilization, the rules distinguish between state obligations respecting, on the one hand, new pollution, and existing pollution on the other.¹¹

Under the Rules, a state must prevent any new form of water pollution in the basin which would cause substantial injury in the territory of a co-basin state. If it violates this obligation, the responsible state is required to cease the wrongful conduct and to compensate the injured state for the injury. However, a lesser obligation is imposed in the case of existing pollution. The Rules provide that a state must take all reasonable measures to abate existing water pollution in a basin to the end that no substantial damage is caused in the territory of a co-basin state. If this obligation is violated, the responsible state is required to enter promptly into negotiations with the injured state with a view to reaching a settlement equitable under the circumstances.¹²

While the Helsinki Rules have been significant in the process of developing law on this subject, they are not in themselves law and would have no binding effect in any dispute between Israel and Jordan concerning the Jordan basin.

Current International Developments. There are a number of recent developments and studies currently underway which may eventually lead to the establishment of more precise rules concerning the pollution of international drainage basins.

The United Nations International Law Commission, pursuant to a 1970 General Assembly resolution, is currently

studying the Law of the Non-Navigational Uses of International Watercourses, and its work program includes the question of pollution.¹³ It is not yet clear whether the final product will take the form of a proposal for a broad agreement or a recommended draft of principles, and it is in any event unlikely that any product will emerge for at least several years.

The U.N. Environment Programme (UNEP), pursuant to a General Assembly resolution adopted in 1973, is currently seeking to develop a draft code of conduct concerning cooperation between countries for the conservation and harmonious exploitation of national resources common to two or more states.¹⁴ While the group working on the draft code has achieved some consensus on general duties to cooperate, to engage in environmental assessments, to exchange information, and to consult, it is encountering considerable difficulties in achieving any overall agreement on specific principles, and its work has not yet been completed. A related UNEP study group dealing with questions of liability and compensation for environmental harm has recently recommended against an immediate effort to draft broad principles in this area, favoring instead studies in specific practical areas, including river pollution.¹⁵

The United Nations Water Conference laid out a series of recommendations for the control of pollution, deriving

from a general principle that

Concerted and planned action is necessary to avoid and combat the effects of pollution in order to protect and improve where necessary the quality of water resources.¹⁶

The twenty-three specific recommendations included one that countries should:

Establish quality standards for the various beneficial uses of water, whenever possible, taking into account the degree of development and the social and economical conditions of each region.

The Council of Europe has prepared a draft "European Convention on the Protection of Fresh Water against Pollution,"¹⁷ but the recommended text has not yet been put in the form of an actual treaty.

In sum, while current activities directed at problems of river pollution are fairly extensive, little by way of specific results or rules has as yet been achieved. Indeed, the extent and diversity of these activities serve to underline a general awareness that relevant rules do not as yet exist and that this gap has yet to be filled.

B. The Particular Problem of Salinity

The Jordan River presently has an extremely high level of salinity (the concentration of dissolved solids in the water), which increases as the river flows southward from Lake Tiberias to the Dead Sea.

Two processes typically account for such an increase in the levels of salinity.¹⁸ Salt loading occurs when additional solids are added to the river. Salt concentration results when water is removed so that the same amount of salts is suspended in a lesser quantity of water. These processes occur both naturally and as a result of man's activities.

Since the climate of the Jordan River Basin is extremely arid, there has not been the precipitation over time to leach the salts from the characteristically saline soils of the region. Thus, when land is put under cultivation and irrigated, these salts are picked up from the soil and added to the river in return flows. This process, known as salt loading, also occurs naturally as the water washes salts from the beds and banks of the river and its tributaries. Natural point sources, mainly saline springs, contribute additional salts to the river. Salt concentration, the process whereby water is removed and salts are left behind, results from evaporation and transpiration and from human depletion and consumptive uses of river water. Diversions of water from Lake Tiberias or the Yarmuk, for example, remove water that would otherwise dilute the more saline waters of the lower reaches of the Jordan.

Salinity usually begins to create problems for water users when the level of concentration exceeds 1,000 milligrams per liter. The problems created by salinity are

chiefly economic and may include decreased crop yields on irrigated lands, increased treatment costs for municipal and industrial users, pipe corrosion, and decreased potability or drinking water. In the ecological field, increased salinity levels may adversely affect fish, wildlife, and natural vegetation.

For most practical purposes, legal issues respecting salinity can be treated as, in effect, issues of general river pollution. The absence of relevant legal rules applicable to the general problems of Jordan basin pollution has already been discussed. There is little more which can be added in terms of potentially applicable norms with respect to the specific problem of salinity. However, there is at least one fairly close analogy in international experience to the Jordan Basin problem -- the dispute between the U.S. and Mexico over the salinity of the Colorado River¹⁹ -- which deserves mention.

The Colorado River arises in and drains a vast area in the southwest United States, flows across the Mexican border into the Mexicali Valley in Northwest Mexico, and then empties into the Gulf of California. The waters of the river are vital to the economies of both countries. In 1944 the two countries entered into a treaty concerning the uses of the Colorado River, under which the U.S. agreed to deliver a certain quantity of water to Mexico each year. However, nothing was expressly said in the agreement about

the quality of the water. Increasing development in the southwest United States in the post-war years resulted in intense and rapidly growing demands for the domestic use of these waters.

In 1957, the United States began to divert a significant amount of water from the Colorado in order to open up new areas to irrigation; the most important of these projects was the Wellton-Mohawk diversion. These diverted waters eventually returned to the river before it reached Mexico, thus fulfilling the treaty's requirements of water quantity. However, during their use for irrigation, the waters picked up great quantities of minerals, and this highly saline return flow almost doubled the salinity of the waters eventually reaching Mexico. Reportedly, when U.S. agencies were planning the Wellton-Mohawk diversion, they gave little formal consideration to the potential effects on Mexico or the probable Mexican reaction.

In 1961, Mexico complained to the United States. It claimed that the waters it was receiving were too saline to irrigate crops in the Mexicali Valley, that the livelihood of Mexican farmers was being severely affected, and that the delivery of waters of such poor quality was in violation of the treaty of 1944. The U.S. took the position that the treaty was not being violated. However, the matter was referred to the U.S.-Mexican International Boundary Waters Commission, which undertook scientific

studies and provided a forum for negotiations. In 1965, the two countries, within the framework of the Commission, reached a five-year agreement providing for measures to deal with the problem of salinity. This agreement was subsequently extended for two more years.

In 1972, President Echeverria of Mexico, during an official visit to the United States, addressed the Congress, emphasizing the importance to Mexico of the Colorado River problem. Soon afterwards, President Nixon appointed former Attorney General Brownell as his special representative to find a solution to the problem. Mr. Brownell established a task force to study the matter and reported back to President Nixon in December 1972, with his recommendations. The two countries resumed negotiations on the basis of these recommendations, and in August 1973, reached an agreement which was embodied in the International Boundary Water Commission's Minute No. 242.²⁰ This agreement is expressly stated to be a "permanent and definitive solution" of the salinity problem. Under the agreement, the United States promised to provide Mexico with the continued annual delivery of stated quantities of water which meet certain standards of average quality. To accomplish this, the U.S. would build the world's largest desalinization plant in Arizona to process the water from the Wellton-Mohawk diversion, decreasing its mineral content before it is returned to the Colorado and crosses into Mexico. The U.S.

would also construct, at its expense, a lined bypass drain to carry the wastes produced by the treatment of Wellton-Mohawk drainage directly to the Gulf of California, bypassing the river entirely. The U.S. would also support Mexican efforts to obtain appropriate financing for improvements and rehabilitation in the Mexicali Valley. The total cost of the agreement to the U.S. was estimated at \$115 million.

The U.S. - Mexican experience does not yield precise legal guidance with respect to the Jordan Basin problem. However, it does indicate that a state is required to refrain from causing harm to a co-basin state by a substantial and harmful increase in the level of the salinity of a river. It also underlines the advisability of negotiating a compromise in such a situation. It also has other lessons. First, while the 1944 treaty formed the backdrop against which the dispute unfolded, the parties outwardly relied relatively little on legal arguments and went to some lengths to avoid resort to adjudication or formal modes of dispute-resolution or to a settlement in terms of legal liability. While at one point there was apparently a threat of resort to international adjudication, this was never pursued. Concern over uncertainty of the law, delay, a possible heightening of tensions, and the enforceability of any judgment might have been factors; a high Mexican official has been quoted as saying that "friendly neighbors do not take each other to court."²¹ While at one point Mexico claimed damages of up to \$150 million, it ultimately dropped this issue. The U.S. took the position that

it was not prepared to pay legal damages since no damages were demonstrable or quantifiable; moreover, such a payment would certainly have raised both political difficulties and problems of legal precedent for the U.S. Mr. Brownell commented that the "whole settlement is in lieu of an acrimonious dispute over damages [and] . . . in substitution for fighting it out" and that the agreement "demonstrates . . . the U.S. policy of endeavoring to settle disputes with its Latin American neighbors on a friendly basis and not to resort to courts or to other methods of settling the disputes."²²

Second, this experience illustrates the importance of financial and technical resources in the solution of salinity problems. In the U.S. - Mexican case, the issue could be resolved to the satisfaction of both parties because technical solutions were available and the U.S. was prepared to pay their substantial cost. This was also the case with respect to solution of the India-Pakistan Indus River problem, which was made possible largely through the mediating efforts and financial assistance for necessary works provided by the International Bank for Reconstruction and Development.²³

As has been discussed, past developments on the lower Jordan River have made it virtually a "salt sewer," unusable over much of its length for most agricultural purposes. This condition has undoubtedly been aggravated by Israeli transbasin diversion of some waters from lower Lake Tiberias

to the National Water Carrier. It has also been aggravated by Jordan's diversion of a large portion of the waters of the Yarmuk into the East Ghor canal, where it is used for irrigation purposes, returning to the Jordan by gravity only in a highly saline state. However the salinity of the Lower Jordan itself appears up to now to have been tolerated by both Jordan and Israel and in itself seems unlikely to become a serious issue between the parties.

The Yarmuk itself, on the other hand, represents a source of water of relatively high quality, used directly both in the East Ghor diversion and in the Adasiye Triangle. From Israel's standpoint, not only a decrease in the quantity of water reaching the Triangle, but also any decrease in the quality of that water could conceivably give rise to complaint.

There is no indication in the engineering studies that the proposed Maqarin Dam is likely to have a detrimental effect on either the quantity or the salinity of the water reaching the Triangle.²⁴ The purpose and principal effect of the dam will be, by providing an impoundment capability, to control and regulate the flow over time, thus conserving and allowing more rational use of the Yarmuk waters, rather than to reduce or substantially to change the quality of the waters flowing to the Adasiye Triangle. It is possible, however, that any such more efficient use of Yarmuk waters might itself result in

higher salinity levels in the Jordan. That is, to the extent that more Yarmuk waters can be captured for irrigation purposes for either the East Ghor canal or the Adasiye Triangle, less will escape unused to dilute the Jordan itself. However, as indicated, both parties have contributed to the salinity of the Jordan, and the matter of salinity seems unlikely in itself to be an issue between them.

The salinity of the Jordan River might become a political-legal issue if some new entity, such as a Palestinian state, were to be established in the present occupied territory on the West Bank. Were this to occur, there would then be an additional riparian state on the Jordan, with a claim to Jordan Basin waters not encompassed in the Johnston allocations. This entity might well claim that it was denied equitable utilization of the waters since its access was only to the already highly saline and virtually unusable waters of the Jordan itself, rendered unusable through withdrawals by Israel and Jordan, the upper riparians.²⁵

The legal issues involving the Jordan which might arise from the establishment of a new West Bank entity are complex and potentially troublesome, and it is difficult to predict their outcome. Arguably, the new entity would, as a successor to Jordanian interest in the West Bank, acquire only such rights to Jordan waters as Jordan itself might have asserted immediately prior to establishment of the new entity.

Since Jordan has itself both contributed to and apparently acquiesced in the present condition of the River, the new entity as successor state might thus have no claim to more water or water of better quality. In any event, even developing international norms with respect to river pollution, such as the Helsinki Rules, tend to recognize that considerably lesser obligations should be imposed upon states with respect to the abatement of already existing forms of pollution than with respect to the prevention of additional or new types of pollution.

A new West Bank entity might, however, have arguments the other way. Most simply, it might contend that, as a co-riparian, it is entitled to equitable utilization of Basin waters and that Israel and Jordan, through their diversions and actions, are effectively denying it virtually any usable water. Moreover, the new entity might urge that it is in fact the Palestinian state envisioned in the General Assembly Partition Resolution of 1947, that both Jordan and subsequently Israel have exercised control during the last 30 years solely as occupying powers, and that consequently it is not really a "successor state" or bound by their actions.

The potential difficulty of these questions strongly suggests that, if such an entity is ever established, the problem of the utilization of Jordan waters, including the matter of water quality, should be negotiated and settled in advance.

C. Other Environmental Issues

The proposed Maqarin Dam appears to raise no issues other than the possible issue of increased salinity and the possible effects of any such increased salinity upon local flora and fauna.

There is apparently some possibility that any increase in salinity of the Jordan may affect the level, as well as the salinity, of the Dead Sea. However, the view has been expressed that this change is unlikely to have any adverse environmental impact²⁶ and might in fact actually benefit Israeli and Jordanian potash works on the Sea. The possibility has been suggested of utilizing cloud-seeding techniques to increase precipitation on Mount Hebron and possibly to add to the waters draining into the Yarmuk. Such activities could, of course, raise practical political problems in that more rain for one Basin state may mean less rain for another. At the present time, there appears to be relatively little firm international law directed explicitly to this particular subject.²⁷ However, there is a growing consensus that weather and climate should be regarded as shared international concerns and that human manipulation of them should be brought under international rules. The United Nations Environment Programme is currently attempting to develop general principles and operative guidelines for man-induced weather modification.²⁸

An important recent development in this area was the conclusion by the U.S. and Canada in 1975 of a bilateral agreement relating to Exchange of Information on Weather Modification Activities.²⁹ The Agreement provides for exchanges of information, notification prior to commencement of such activities, and prompt consultation at the request of either party with respect to weather modification activities carried on within 200 miles of the international boundary or activities which may have significant effects on the atmosphere over the territory of the other party. However, it is expressly provided that nothing in the agreement "relates to or shall be construed to affect the question of responsibility or liability for weather modification activities, or to imply the existence of any generally applicable rule of international law," and no dispute settlement provisions are included.

FOOTNOTES TO CHAPTER IV

1. See Report by William D. Romig, 24 Nov. 1976 at 12.
2. See generally R.B. Bilder, *The Settlement of Disputes in the Field of the International Law of the Environment*, 141 *Hague Academy Recueil des Cours*, 141 at 148, 167 (1975); A.J. Garretson, R.D. Hayton, and C.J. Olmstead (eds.), *The Law of International Drainage Basins* (1967); and G. Gaja, *River Pollution in International Law*, in *Hague Academy of International Law, Colloque 1973, The Protection of the Environment and International Law* 353 (A. Kiss, ed. 1975).
3. Bilder, *supra* note 2 at 168; C.B. Bourne, *Avoidance and Adjustment of Disputes Concerning the Waters of International Drainage Basins*, paper delivered at the Conference on the Avoidance and Adjustment of Environmental Disputes, held by the American Society of International Law at Villa Serbelloni, Bellagio, Italy, 1974.
4. *Ibid.*
5. Report of the United Nations Conference on the Human Environment, U.N. Doc. A/CONF.48/14 (1972). The text of the Declaration is reprinted in 67 *Dep't State Bull.* 116 (1972) and 11 *Int'l Legal Materials* 1416 (1972).
6. G.A. Res. 3281 (XXIX), 12 Dec. 1974, 29 *GAOR Supp.* No. 31, at 50, U.N. Doc. A/9631 (1975), 14 *Int'l Legal Materials* 251 (1975).
7. 12 *U.N. R. Int'l Arb. Awards* 281 (1957), 24 *I.L.R.* 101 (1957), noted and excerpted in 53 *Am. J. Int'l L.* 156 (1959). See J.G. Laylin and R.L. Bianchi, *The Role of Adjudication in International River Disputes: The Lake Lanoux Case*, 53 *Am. J. Int'l L.* 30 (1959).

8. 12 U.N. P. Int'l Arb. Awards 303, 308 (1957).
9. International Law Association, Report of the Fifty-second Conference Held at Helsinki, August 14th to August 20th, 1966, at 484 (1967).
10. Art. IX.
11. Art. X.
12. Art. XI.
13. G.A. Res. 2669 (XXV), 8 Dec. 1970, 25 GAOR Supp. No. 28, at 127, U.N. Doc. A/8028 (1971); see Report of the International Law Commission on the work of its twenty-sixth Session (6 May-26 July 1974), [1974] 2 Y.B. Int'l L. Comm'n 157 300, U.N. Doc. A/CN.4/SER.A/1974/Add. 1 (Part 1) (1975).
14. Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States, Report on the Work of its Third Session Held at Nairobi from 10 to 21 January 1977, U.N. Doc. UNEP/IG/7/CRP.1 (1977).
15. Ibid.; and see Report of the Group of Experts on Liability and Responsibility for Pollution and Other Environmental Damage, Report on the Work of Its First Session Held at Nairobi from 23 February to 4 March 1977, U.N. Doc. UNEP/ (1977).
16. Report of the United Nations Water Conference (Extract) 27 and 29, U.N. Doc. E/C.7/L.58 (1977).
17. The Draft Convention is attached to Recommendation 555 (1969), adopted by the Consultative Assembly of the Council of Europe on 12 May 1969, in Council of Europe, Consultative Assembly, Twenty-first ordinary session, first part, 12-16 May 1969, Texts Adopted by the Assembly (1969).

18. This discussion of salinity follows closely the discussion in R.A. Hennig and J.B. Olson, *The Colorado Salinity Problem -- Old Approaches to a New Issue*, 11 *Land and Water L. Rev.* 459 (1976); see also Flack and Howe, *Salinity in Water Resources* (1974).
19. See H. Brownell and S. D. Eaton, *The Colorado River Salinity Problem with Mexico*, 69 *Am. J. Int'l L.* 255 (1975), and *International Symposium on the Salinity of the Colorado River*, 15 *Nat. Resources J.* 1 (1975).
20. 30 Aug. 1973, 69 *Dep't State Bull.* 395 (1973).
21. As quoted in H.F. Matthews, Jr., *International River Problems: Three Examples, A Case Study for the Sixteenth Session*, U.S. Department of State Senior Seminar on Foreign Policy (April 1974).
22. See news conference by H. Brownell, 30 Aug. 1973, 69 *Dep't State Bull.* 389, 392 (1973).
23. See N.D. Gulhati, *Indus Waters Treaty: An Exercise in International Mediation* (1973), and R. R. Baxter, *The Indus Basin*, in A.H. Garretson, R.D. Hayton and C.J. Olmstead (eds.), *The Law of International Drainage Basins* 443 (1967).
24. See Report by William D. Romig, 24 Nov. 1976, at 12.
25. See Chapter V.
26. See Report by William D. Romig, 24 Nov. 1976, at 13.
27. R.B. Bilder, *supra* note 2 at 212-213.
28. UNEP Governing Council Decision 8 (II), sec. III, para. 1, 22 Mar. 1974, in UNEP, *Report of the Governing Council on the work of its Second Session*, 29 *U.N. GAOR Supp. No. 25*, at 59, 67, *U.N. Doc. A/9625* (1974).
29. Signed at Washington, 26 Mar. 1975, 26 *U.S.T.* 540, *T.I.A.S. No. 8056*.

CHAPTER V

INTERNATIONAL DUTIES WITH RESPECT TO OCCUPIED TERRITORY

A. The Status of the West Bank

The peculiar legal and political status of the West Bank of Jordan has already been mentioned in Chapter I. Its status as a part of Jordan rests not on previously established international boundaries but primarily on the Israel-Jordan Armistice Agreement of 1949 and on the subsequent widespread acceptance of the Jordanian right to administer the area, reinforced by the post-1967 position taken by the political organs of the United Nations that the area is non-Israeli territory presently subjected to Israeli military occupation. Moreover, in international discussion of possibilities for the settlement of the Arab-Israeli dispute, the idea of a separate Palestinian Arab state comprising the West Bank has gained some currency in recent years, along with the idea that the Palestine Liberation Organization should be accorded an official status as the international representative of the Palestinian Arab people.

As to any question affecting the future disposition of significant natural resources available to the West Bank, therefore, there is a risk that competing claims may be put forward as to who is entitled to speak for the territory and its present and possible future populations. On the

one hand, Jordan may in strict legal terms be the nearest thing to a territorial sovereign that the West Bank has, but, on the other hand, Jordan has conceded that the Palestine Liberation Organization is entitled to speak for the Palestinians. Israel's rights do not go beyond the temporary prerogatives of a belligerent occupant (although Israel can be expected in fact to seek an expansive interpretation of these rights as to natural resources). As a matter of politics but not of law, it might be prudent to consider some form of consultation with the representatives of the Palestinian people.

It does not follow, however, that the specific question of the construction of the Maqarin Dam is one which need give rise to questions as to who is entitled to speak and act for the West Bank, and in fact in our view it is not.

B. The Applicable Law

Any consideration of the legal rights and duties of Israel and Jordan with regard to the occupied West Bank of the Jordan must be premised upon the differing perceptions of the two countries -- and indeed of third states as well -- on the legal status of the area. These divergent views have already been touched upon in the preceding section and in Chapter I of this study.

The view of Israel has been that it is not, as a matter of law, obliged to apply the Geneva Convention relative to the Protection of Civilian Persons in Time of War of 1949¹ (to which Israel is a party) to the West Bank, although, under pressure from friend and foe alike, it has said that it is indeed applying that Convention and in fact goes beyond the duties of safeguarding the civilian population laid down therein.² This refusal to acknowledge the applicability of the Convention is in turn based upon a more broadly put contention -- that Israel is not subject to the law of belligerent occupation at all. The latter proposition means that Israel also does not regard itself as bound by the relevant articles of the Regulations annexed to Convention No. IV of The Hague of 1907,³ which were held by the Nuremberg Tribunal to have passed into customary international law.⁴

The basis for this Israeli position has not been fully spelled out by representatives of that Government, although they have announced this position on numerous occasions in the General Assembly and its subsidiary organs. But enough has been said to indicate that Israel holds the view that an occupant becomes subject to the law of belligerent occupation only if the territory occupied was lawfully under the sovereignty of the enemy state that had previously exercised its functions in that area. Jordan, according to Israel, neither at the time of the

termination of the Mandate nor thereafter, had acquired sovereignty over the West Bank. In the words of Attorney General Shamgar of Israel,

. . . [I]n the interpretation most favorable to the Kingdom of Jordan her legal standing in the West Bank was at most that of a belligerent occupant following an unlawful invasion. In other words, following an armed invasion in violation of international law, the military forces of Jordan remained stationed in the West Bank and the Kingdom of Jordan then annexed the West Bank, after having agreed in the Armistice agreement of 1949 that it had no intention of prejudicing the rights, claims, and positions of the parties to the agreement.⁵

When Israel has been charged with moving toward annexation of the West Bank, the reply has been:

Throughout all this period we abstained -- as we still do -- from changing the political and juridical status of the administered territories and have not closed any options for a negotiated peace.⁶

While Israel has denied that it is subject to the law of belligerent occupation, it has not put its case affirmatively in the sense of laying out what it does consider to be the basis of its rights in the West Bank. Presumably, the area may be regarded by Israel as remaining in the indeterminate status in which it was left at the termination of the Mandate.

On the other hand, Jordan annexed the West Bank in 1950 and therefore looks upon Israel as in belligerent occupation of the area. It has, however, consented to the Rabat Declaration of 1974, recognizing the capacity of the Palestine Liberation Organization to speak for the Palestinians.

The question of what the law of war requires with respect to the waters of the Jordan bordering upon and watering the West Bank is easily answered by Israel: Nothing, because it is not subject to the law of belligerent occupation in the first place. But the vote of 121 to zero in favor of General Assembly Resolution No. 3240 (XXIX) B, 29 November 1974,⁷ reaffirming that the Geneva Civilians Convention of 1949 is "applicable to the Arab territories occupied by Israel since 1967" indicates that there is near universal sentiment in favor of applying the Convention to the West Bank. By a parity of reasoning, it would appear that the Hague Regulations of 1907 must likewise be applied by Israel.

There is no express provision in the applicable treaties dealing with water rights under belligerent occupation. Likewise, there is no state practice or doctrine bearing directly on the question. However, Article 55 of the Hague Regulations of 1907 does provide with respect to enemy public immovable property in occupied areas that:

The occupying State shall be regarded only as administrator and usufructuary of public buildings, real estate, forests, and agricultural estates belonging to the hostile State, and situated in the occupied country. It must safeguard the capital of these properties, and administer them in accordance with the rules of usufruct.

Water is public property in the view of Israel. The right of use being characterized under the civil law rubric of usufruct, it is important to bear in mind that

. . . [T]his right of use is limited, according to jurists, in that the occupant is not permitted to exploit immovable property beyond normal use, may not cut more timber than was done in pre-occupation days, may not impair the capital value of the property in any way.⁸

Israel is thus entitled to draw upon the waters of the Jordan but within the limits set by the law of usufruct. There is no indication that Israel is exceeding those limits. An affirmative duty rests upon the belligerent occupant in that:

To the fullest extent of the means available to it, the Occupying Power has the duty of ensuring the food and medical supplies of the population; it should, in particular, bring in the necessary food-stuffs, medical stores and other articles if the resources of the occupied territory are inadequate.⁹

These duties incumbent upon Israel are mentioned not only for their bearing upon the duties of that country but also for the light that they throw upon the duties of Jordan with respect to the West Bank.

Is Jordan under any legal obligations with respect to the continuing supply of water to Israel while the West Bank remains under Israeli occupation? If Israel is under a duty to maintain the food supplies of the civilian population in the occupied area and irrigation is necessary to the maintenance of that food supply, Jordan could hardly complain if its own conduct made it impossible for Israel to carry out its duties.

The Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable to Armed Conflicts, which has met in Geneva from 1974 to 1977, adopted a Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the protection of victims of international armed conflict (Protocol I).

Article 54, paragraph 2, of the Protocol provides:

It is prohibited to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as foodstuffs, agricultural areas for the production of foodstuffs, crops, livestock, drinking water installations and supplies and irrigation works, for the specific purpose of denying them for their sustenance value to the civilian population or to the adverse Party, whatever the motive, whether in order to starve out civilians, to cause them to move away, or for any other motive.¹⁰

The only exception to the territorial scope of this principle is found in paragraph 5 of the article, which states that

In recognition of the vital requirements of any Party to the conflict in the defence of its national territory against invasion, derogation from the prohibitions contained in paragraph 2 may be made by a Party to the conflict within such territory under its own control where required by imperative military necessity.

Paragraph 2 of the article would thus appear to apply to a state's own territory under enemy occupation. If this be the case, then Jordan (if it were to become bound by the Protocol vis-à-vis Israel) would be precluded from taking these measures against the occupied areas. Water

itself would seem to be an "object indispensable to the survival of the civilian population." However, the application of the Protocol to the conflict between Israel and Jordan seems improbable, in light of the fact that Israel was the only state not to subscribe to the Final Act of the Diplomatic Conference.

Enough has been said to indicate that there is no clear law on the obligations of Jordan with respect to the West Bank, as the law stands at present.

What of the responsibility of Jordan to continue to supply water to the Adasiye Triangle? Again, no firm answer can be given about the legitimacy of a belligerent's taking measures to cut off the water supplies of its adversary, particularly when these are supplied through a river flowing from a state's own territory to that of its adversary. Article 54, paragraph 2, of Protocol I adopted at Geneva in June of 1977 would be applicable only if Jordan and Israel were to become parties to the Protocol, which at the time of writing seems highly unlikely. Naturally, the provision in question may be invoked by one or another state as evidence of what the current standard is or ought to be, but it would not be legally binding. There is no other provision of the Geneva Civilians Convention of 1949 or the Hague Regulations of 1907 which would appear to render unlawful a wartime suspension of delivery of waters by one belligerent to the territory of another.

It may be appropriate to conclude this section about the significance of the existence of a state of war with a brief consideration of how equitable apportionment might be applied with respect to territory that is under enemy occupation. Is the West Bank to receive its own apportionment of water if equitable apportionment were to be carried out?

As equitable apportionment is a process as well as a principle for the division of waters, it is difficult to think of equitable apportionment's being carried out in time of war between two hostile states. But if they were to negotiate and to agree on an equitable apportionment, then they would be free to decide upon any apportionment that would be mutually satisfactory, with or without an identifiable allocation for an occupied area. Equitable apportionment by a third-party decision-maker, such as a tribunal, is virtually inconceivable in time of war, even when hostilities have been suspended. The question has never come up before in the context of either negotiation or adjudication, and there is thus no precedent on the matter.

The position of Israel would presumably be that it is entitled as a matter of law to water for the West Bank, since the area is, in its view, not Jordanian territory. Jordan should therefore agree to an allocation for that area. On the other hand, Jordan might, in the interests of the

Arab population on the West Bank, wish to see water supplied for an area which constitutes at present part of its territory, whatever the ultimate fate of the West Bank may be. It surely could be under no compulsion to agree to an allocation of waters that would be used for the sustenance of the new settlements made by Israelis in the area of the West Bank, especially in so far as these settlements may be regarded as having a defensive purpose.

Ultimately, the whole matter would turn on what state -- whether Israel, Jordan, or a new Palestinian state -- is, or is to be, entitled to sovereignty over the West Bank, and that question is more a political one than a legal one. Only one thing may be said with conviction -- that there is no requirement of international law that an allocation of water be set aside for a political entity that has not yet but might later come into existence.

FOOTNOTES TO CHAPTER V

1. Dated at Geneva, 12 Aug. 1949, 6 U.S.T. 3516, T.I.A.S. No. 3365.
2. Statement by Ambassador Jacob Doron on Agenda Item 55 in the Special Political Committee (31st Session of the General Assembly), 12 Nov. 1976, as released by the Permanent Mission of Israel to the United Nations, at 16 (1976); *id.*, 30 Nov. 1976 at 6-10 (1976).
3. Convention respecting the Laws and Customs of War on Land, signed at the Hague, 18 Oct. 1907, arts. 42-56, 36 Stat. 2277, T.S. No. 539, 1 Bevans 631.
4. International Military Tribunal, Trial of the Major War Criminals before the International Military Tribunal 253-254 (1947).
5. M. Shamgar, The Observance of International Law in the Administered Territories, 1 Israel Yb. of Human Rights 262, 265 (1971).
6. 28 U.N. GAOR, Special Political Committee (896th mtg.) 217, U.N. Doc. A/SPC/SR.896 (1973), citing the remarks of Mr. Eban in the 2139th plenary meeting of the General Assembly.
7. 29 U.N. GAOR Supp. No. 31, at 35, U.N. Doc. A/9631 (1975).
8. G. von Glahn, The Occupation of Enemy Territory 177 (1957).
9. Geneva Civilians Convention of 1949, art. 55.
10. Protocol I is an unnumbered and undated document of the Conference.

CHAPTER VI

THE DUTY OF NOTIFICATION IN THE EVENT OF CHANGES IN THE UTILIZATION OF WATERS

A riparian or basin state of an international river has a duty under international law to provide notice of any change in its utilization of the river which may adversely affect the interests of another riparian or basin state and to allow that riparian or basin state an opportunity to reply. However, international law does not go so far as to deny the first riparian the right to proceed with its change in utilization if the second riparian objects to the proposed change.

The most elaborate formulation of this duty appears in the Helsinki Rules:

1. With a view to preventing disputes from arising between basin States as to their legal rights or other interest, it is recommended that each basin State furnish relevant and reasonably available information to the other basin States concerning the waters of a drainage basin within its territory and its use of, and activities with respect to such waters.

2. A State, regardless of its location in a drainage basin, should in particular furnish to any other basin State, the interests of which may be substantially affected, notice of any proposed construction or installation which would alter the regime of the basin in a way which might give rise to a dispute as defined in Article XXVI. The notice should include such essential facts as will permit the recipient to make an assessment of the probable effect of the proposed alteration.

3. A State providing the notice referred to in paragraph 2 of this Article should afford to the recipient a reasonable period of time to make an assessment of the probable effect of the proposed construction or installation and to submit its views thereon to the State furnishing the notice.

4. If a State has failed to give the notice referred to in paragraph 2 of this Article, the alteration by the State in the regime of the drainage basin shall not be given the weight normally accorded to temporal priority in use in the event of a determination of what is a reasonable and equitable share of the waters in the basin.¹

A similar obligation to give notice was incorporated in the Declaration of Montevideo concerning the industrial and agricultural use of international rivers, approved by the Seventh Inter-American Conference in 1933.² The announcement had to be answered in three months, and an elaborate procedure was laid down for the resolution of the dispute in the event of disagreement.

The Institut de Droit International also goes farther than the Helsinki Rules, which do no more than recommend the giving of notice. The Institute's resolution on the "Utilization of non-maritime international waters (except for navigation)" provided:

Article 5. Works or utilizations referred to in the preceding article may not be undertaken except after previous notice to interested States.

Article 6. In case objection is made, the States will enter into negotiations with a view to reaching an agreement within a reasonable time.

For this purpose, it is desirable that the States in disagreement should have recourse to technical experts and, should occasions arise, to commissions and appropriate agencies in order to arrive at solutions assuring the greatest advantage to all concerned.

Article 7. During the negotiations, every State must, in conformity with the principle of good faith, refrain from undertaking the works or utilizations which are the object of the dispute or from taking any other measures which might aggravate the dispute or render agreement more difficult.³

The matter is more simply put in the proposed text in the Sub-Committee of the Asian-African Legal Consultative Committee, which also make consultation mandatory:

A State, which proposes a change of the previously existing use of the waters of an international drainage basin that might seriously affect utilization of the waters by another co-basin State, must first consult with the other interested co-Basin States. . . .⁴

If agreement cannot be reached, various methods of dispute-settlement are to be employed. No consequences are attached to the failure to carry out the duty to consult.

One of the Recommendations adopted at Stockholm in 1972 was that the following principle should be among those "considered by the States concerned when appropriate":

Nations agree that when major water resource activities are contemplated that may have a significant environmental effect on another country, the other country should be notified well in advance of the activity envisaged.⁵

In implementation of Stockholm Principles 21 and 22, the General Assembly has recognized in Resolution 2995 (XXVII) that cooperation among states in the field of environment,

will be effectively achieved if official and public knowledge is provided of the technical data relating to the work to be carried out by States within their national jurisdiction, with a view to avoiding significant harm that may occur in the environment of the adjacent area.⁶

The Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States has been attempting to give more content to the process of notice and consultation in connection with shared national resources. No agreement has been reached on a text, but the three alternative formulations under consideration all have the common characteristics of calling for notification of any change in the utilization of the resource which will significantly affect other states sharing the resource, for consultations, and for the furnishing of any specific information requested. The texts differ most significantly in the question whether states have an obligation to carry on this process or merely should do so.⁷

In cases in which notice has been given of changes in the utilization of international rivers, the state giving the notification is often responding to a treaty obligation to do so. In the Lake Lanoux Arbitration, France notified Spain of the works it proposed to carry out, but that notification was required under Article 11

of the Additional Act of 1866; the tribunal held that France had given appropriate notice.⁸ Article VII of the Indus Waters Treaty, as do many other agreements, calls for the provision of notice of new works.⁹

In view of the difference that exists on whether notification is required or merely recommended, it may seem to be going too far to assert that there is a duty to notify. On the other hand, there is a very narrow distinction -- if any at all -- between a recommendation to notify and a duty to notify that is not backed up by any sanction.

Because war cuts off communication between the belligerents, there is presumably no legal obligation to provide notification to the enemy, and Jordan is thus, under a strict reading of the law, under no duty to notify Israel of its studies of the Maqarin Dam.

FOOTNOTES TO CHAPTER VI

1. Article XXIX, Report of the Fifty-second Conference Held at Helsinki, August 14th to August 20th, 1966 at 518 (1967).
2. Pan-American Union, Seventh International Conference of American States, Plenary Sessions, Minutes and Antecedents 114 (1933). As reported in the Comment to Article XXIX of the Helsinki Rules:

The Declaration was recognized by Bolivia and Chile to create obligations for both States in connection with the Lauca River dispute. The obligation to give notice was not disputed, but the parties could not agree on the adequacy of the notice which had been furnished. (See Council of the Organization of American States Doc. OEA/Ser.G/VI, C/INF-47, 15 April 1962 and 20 April 1962, and OES/Ser.G/VI, C/INF-50, 19 April 1962). (at 520)

3. 49 Annuaire de l'Institut de Droit International, Part II, 381 at 383 (1961).

The position of the United States Department of State has in the past been that notice is obligatory. See Legal Aspects of the Use of Systems of International Waters with Reference to Columbia-Kootenay River System under Customary International Law and the Treaty of 1909: Memorandum of the State Department, S. Doc. No. 118, 85th Cong., 2d Sess. 90 (1958).
4. Proposition X, Report of the Fourteenth Session Held in New Delhi from 10th to 18th January, 1973, 99 at 107.
5. Action Plan for the Human Environment, Recommendation 51 (b) (i), Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972, at 17, U.N. Doc. A/Conf.48/14/Rev.1 (1973).

6. 15 Dec. 1972, 27 U.N. GAOR Supp. No. 30, at 42,
U.N. Doc. A/8730 (1973).
7. Report on the Work of its Third Session Held at
Nairobi from 10 to 21 January 1977, at 7-8,
U.N. Doc. UNEP/IG.7/CRP.1 (1977).
8. (1957), 24 I.L.R. 101, 138 (1961).
9. Indus Waters Treaty, signed at Karachi, 19 Sep. 1960,
419 U.N.T.S. 126.

CHAPTER VII
RESPONSIBILITY OF ANY THIRD PARTY (STATE OR
INTERNATIONAL AGENCY) FOR ANY HARM CAUSED
IN VIOLATION OF INTERNATIONAL LAW

There is little precedent for third party responsibility in international law, and it seems unlikely that under the circumstances either the United States or an international agency would, simply by furnishing financial or technical assistance to Jordan in connection with the construction of the Maqarin Dam, become exposed to international liability. However, if the dam were operated by Jordan in such a way as to cause damage to Israel or some other neighboring state, arguably in violation of international law, injured states might seek to impute political if not legal responsibility to any state or international organization which assisted in the construction of the dam. Consequently, the United States might wish to take steps to insulate itself from possible attribution of responsibility, both by express provisions in relevant agreements and by measures to ensure, so far as might be practicable, that the dam is operated and utilized in such a manner as to avoid any violation of international law.

A. General Principles

Any breach of international law by Jordan as regards either Israel or another neighboring state, by reason of construction and operation of the dam or otherwise, would give rise under international law to international legal responsibility and a duty to make reparation. This is a principle of international law that is widely recognized.¹ An example of its application is the Corfu Channel case,² in which the International Court of Justice found that Albania was liable for damage to certain British warships which were exercising the right of innocent passage through the Corfu Strait and were damaged by mines laid in the part of the strait lying within Albanian territorial waters. Although it was not proven that Albania itself laid the mines, the International Court found that Albania knew or should have known of their existence and based liability in part on Albania's failure to warn the British warships of the danger. In holding Albania liable, the International Court stated:

These grave omissions involve the international responsibility of Albania.

The Court therefore reaches the conclusion that Albania is responsible under international law for the explosions which occurred . . . and for the damage and loss of human life which resulted from them, and that there is a duty upon Albania to pay compensation to the United Kingdom.³

In the usual case, any liability for harmful consequences to other countries occasioned by the construc-

tion or operation of the Magarin Dam would rest upon Jordan, the state in the territory of which the dam is situated and which has primary and immediate responsibility for its construction and operation. In general, any international responsibility resting on Jordan (or some other state) would arise only from an act or omission which, under international law, is wrongful, is attributable to that state, and causes an injury to another state.⁴

As in municipal tort cases, proof of causation is essential.

Thus, in the Lighthouses arbitration between France and Greece,⁵ one of the claims arose from the eviction of a French firm from their offices in Salonika and the subsequent loss of their stores in a fire which destroyed the temporary premises. An arbitral tribunal drawn from the Permanent Court of Arbitration said:

Even if one were inclined . . . to hold that Greece is in principle responsible for the consequences of that evacuation, one could not, . . . admit a causal relationship between the damage caused by the fire, on the one part, and that following on the evacuation, on the other, so as to justify holding Greece herself liable for the disastrous effects of the fire . . . The damage was neither a foreseeable nor a normal consequence of the evacuation, nor attributable to any want of care on the part of Greece. All causal connection is lacking, and in those circumstances Claim No. 19 must be rejected.⁶

Liability might conceivably be based on some act or omission of a third country furnishing technical or financial assistance which lead directly to an injury inflicted

on another country. For example, if State A negligently furnishes defective equipment to State B or negligently itself constructs a defective facility or project in B, and this negligence is the direct and immediate cause of injury to State C, A could theoretically be directly liable to C. Thus, one might imagine a situation where A negligently furnished a defective atomic reactor to B and the reactor subsequently released radioactive particles to neighboring Country C. C might argue its right to bring a claim directly against A in this situation. However, we are not aware of any international cases or precedents establishing such liability. No international legal decision is known in which State C, having allegedly been injured by State A in violation of international law, has laid a legal claim against State A or an international organization for having given financial or technical assistance to B which simply created a potentiality for B's breach of international law as regards C. However, principles of third party responsibility are recognized in most systems of municipal law⁷ and by analogy might be in theory potentially relevant as general principles of law recognized by civilized nations and thus a source of customary international law.

Generally speaking, responsibility has been attributed by municipal law systems to third parties in cases where, for example,⁸

(1) the third party, A, intentionally encouraged and assisted B to violate C's legal rights. In this case, A could be regarded as in effect a principal actor together with B in the wrongful act, or even, if B was acting as A's agent or subject to A's direction or control in the relevant wrongful act, as the state primarily liable.

(2) the third party, A, encouraged and assisted B, knowing or recklessly indifferent to the fact that there was a high probability that its assistance would result in B's violating C's rights, and where A failed to take reasonable precautions to guard against this misuse of its aid.

Conceivably, such liability could be joint or several.

An analogy to the above situations might be where State A furnishes military assistance to Country B either with the intention that B use this assistance to commit aggression against State C or knowing that such aggression is highly likely to occur. Arguably, A would in such a case be liable along with B for a violation of international law. United States military assistance agreements typically contain provisions designed to prevent such abuses, presumably at least in part to provide insulation from any such attribution of responsibility.

As previously indicated, there is considerable question as to whether construction of the Maqarin Dam could under the present state of the law lead to legal liability on the

part of Jordan, either to Israel or to its neighbors.

Given the rudimentary state of the law as to third party responsibility, the likelihood that assistance to Jordan by the United States or some international organization would entail legal liability seems even more remote. However, such possibilities may be examined in the light of the general principles just discussed.

B. Violation of the Principle of Equitable Apportionment

There would seem little likelihood that either the United States or some international organization could be held internationally responsible simply for assisting Jordan to construct a dam which Jordan subsequently used to take an excessive share of the basin waters. Even assuming that any such Jordanian action could be held to be a violation of relevant international rules, third party liability would have to rest on a theory that the United States or international organization either intended through its assistance to produce this unlawful result or knew or should have known that it was highly likely to occur.

Under the facts of the present situation, any such inferences would seem untenable. Construction of the dam in itself does not necessarily involve any change in present allocations of the basin waters. The United States neither

intends to facilitate any detrimental change in the use of the waters nor has any reason to believe that such a change will take place.

C. Pollution and Other Environmental Harm

There would seem little likelihood that either the U.S. or some international organization could be held internationally responsible simply for assisting Jordan to construct a dam which subsequently caused some environmental harm to third states. As indicated previously, there appears little likelihood that the dam will in fact result in additional pollution or any other environmental harm, and the state of the law is such that legal responsibility for such harm, even on the part of Jordan itself, is questionable.

Conceivably, the United States or an international organization might be responsible if it either intended construction of the dam to produce environmental harm, knew that such harm were highly likely to result, or was so negligent in furnishing technical advice as to create an unreasonable risk of environmental harm to third countries. However, there appear to be no facts to warrant any of these inferences.

Again, it might be useful for the United States, to the extent feasible, to condition any assistance to Jordan

for construction of the dam on express assurances that Jordan will take appropriate measures to prevent any environmental harm to third countries.

D. Collapse of the Dam

The same principles previously discussed would seem to apply also to a situation where the Maqarin Dam collapsed. Presumably, neither the United States nor an international organization could, solely through furnishing assistance for the dam, be held liable for the collapse of the dam, absent some showing that it either intended that the dam should break and knew that this was highly likely to occur or was itself negligent in furnishing technical assistance which led directly to the failure of the dam. It is almost inconceivable that evidence of this sort could be adduced.

However, to guard against any possible attempt to attribute responsibility in such a case, it would again seem useful for the United States to condition any assistance to Jordan upon express assurances by Jordan that it will assume all responsibility for inspection and safety of the dam, that it will assume sole responsibility for any damage arising out of the construction and operation of the dam, and that it will in effect save the United States harmless from any liability in this respect. Again, the United States should seek through relevant engineering

studies to establish a clear record evidencing its care in furnishing technical advice and other assistance in this respect.

E. Failure to Notify

As noted in Chapter VI, a basin state contemplating works on an international river which might affect the interests of another basin state is obliged to give notice to that state of what it intends to do and to allow that other state to reply. If, as is believed, such a duty exists, it rests upon Jordan. The United States could not be regarded as responsible for any failure of Jordan to provide the requisite information to Israel.

FOOTNOTES TO CHAPTER VII

1. Chorzów Factory Case (Indemnity), [1928] P.C.I.J., ser. A, No. 17, at 29; I. Brownlie, *Principles of Public International Law*, ch. XX (2d ed. 1973).
2. Corfu Channel Case (Merits), [1949] I.C.J. 4.
3. *Id.* at 23.
4. Cf. L. B. Sohn and R. R. Baxter, Draft Convention on International Responsibility of States for Injuries to Aliens, art. 1 (Basic Principles of State Responsibility), in F. V. García-Amador, L. B. Sohn, and R. R. Baxter, *Recent Codification of the Law of State Responsibility for Injuries to Aliens*, 143 (1974).
5. Case concerning the Lighthouses Concession of the Ottoman Empire, Claims Nos. 19 and 21, 12 U.N. R. Int'l Arb. Awards 155, 217; 23 I.L.R. 352 (1956).
6. 12 U.N. R. Int'l Arb. Awards 218; 23 I.L.R. 353.
7. See generally W. L. Prosser, *Handbook of the Law of Torts* (4th ed.), especially ch. 8 (Joint Tortfeasors) and ch. 12 (Imputed Negligence).
8. *Ibid.*

CHAPTER VIII

DISPUTE-SETTLEMENT MECHANISMS

The modes of pacific settlement of disputes are set forth in Article 33, paragraph 1, of the United Nations Charter:

The parties to any dispute, the continuance of which is likely to endanger the maintenance of international peace and security, shall, first of all, seek a solution by negotiation, enquiry, mediation, conciliation, arbitration, judicial settlement, resort to regional agencies or arrangements, or other peaceful means of their own choice.

The parties have a free choice of such modes of settlement; there is no obligation to resort to any one of them, and attempts to peaceful resolution of disputes often founder on inability to agree on the method of settlement to be used.

These modalities must now be individually considered, with particular reference to their employment in disputes about international rivers or drainage basins.

Negotiation: This is, under any circumstances, the preferred method of resolving a dispute. Ideally, negotiation about an international river should take place before any dispute arises. The conclusion of a treaty providing, for example, for the allocation of waters of a river, will resolve that question, and the disputes that will arise thereafter will normally relate only to the application of the treaty. As Professor Berber puts it:

In view of the rudimentary, vague, and still developing character of international water law and of the fact that water disputes are matters suited not for the application of the international judicial process but for the application of international legislation, the conclusion of specific and specialized water treaties remains far and away the best solution.¹

The Rau Commission, which dealt with the dispute between Sind and Punjab concerning the waters of the Indus River Basin, stated:

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 unified community undivided by political or administrative frontiers.²

The treaty will substitute an agreed body of law applicable to the particular river or basin for the vague principles of the customary international law of international drainage basins.

And the Supreme Court of the United States is properly hesitant about the adjudication of inter-state disputes in the United States. In Colorado v. Kansas, the Court said:

The reason for judicial caution in adjudicating the relative rights of States in such cases is that, while we have jurisdiction of such disputes, they involve the interests of quasi-sovereigns, present complicated and delicate questions, and, due to the possibility of future change of conditions, necessitate expert administration rather than judicial imposition of a hard and fast rule. Such controversies may appropriately be composed by negotiation and agreement, pursuant to the compact clause of the federal Constitution. We say of this case, as the court has said of interstate

differences of like nature, that such mutual accommodation and agreement should, if possible, be the medium of settlement instead of invocation of our adjudicatory power.

The dispute between the United States and Mexico concerning the salinity of the Colorado River was resolved in 1973 through intensified negotiations between the two countries.⁴

Enquiry: The nature of the traditional commission of inquiry is described in Article 9 of The Hague Convention No. I for the Pacific Settlement of International Disputes of 1907, which is descriptive of an institution and therefore declaratory of existing law:

In disputes of an international nature involving neither honor nor vital interests and arising from a difference of opinion on points of fact, the contracting Powers deem it expedient and desirable that the parties who have not been able to come to an agreement by means of diplomacy, should, as far as circumstances allow, institute an international commission of inquiry, to facilitate a solution of these disputes by elucidating the facts by means of an impartial and conscientious investigation.⁵

The commission of inquiry is thus an impartial group of persons which has the sole function of ascertaining the facts for the benefit of the parties. It is not a decision-maker, except as to the facts, and it has not traditionally been within its province to recommend terms for the resolution of the dispute or to specify the applicable law.

In the more modern practice, a technical commission of inquiry can be established in order to analyze an international river problem and even to make recommendations for its solution. Independent experts may be employed, or they may be provided by the United Nations or some other international organization. The employment of such commissions has been called for in several agreements relating to international rivers.⁶

The International Joint Commission Canada-United States has regularly performed a fact-finding role in connection with disputes concerning the boundary waters between the two countries.⁷

Mediation and conciliation: With these two forms of dispute-settlement the third party takes a more active role. An individual, personally or ex officio (such as the Secretary-General of the United Nations), a state, or an international organization (such as the International Bank for Reconstruction and Development) can serve as a mediator or conciliator. If the function is that of mediation, the third party merely seeks to bring the parties to the dispute together, but if the third party is called upon to serve as a conciliator, it takes a more active role in suggesting a solution to the parties. In neither case is the third party empowered to decide the issue; it merely assists the parties to reach agreement. The line between the two institutions is a thin one, and what starts

out as mediation may very well turn into conciliation, as the third party assumes a more active posture.

The Helsinki Rules of the International Law Association include mediation (or good offices) among the dispute-settlement procedures that it recommends:

If a question or a dispute is one which is considered by the States concerned to be incapable of resolution in the manner set forth in Article XXXI [i.e., through a joint agency] it is recommended that they seek the good offices, or jointly request the mediation of a third State, of a qualified international organisation or of a qualified person.⁸

The most important case in which mediation and conciliation have been used in connection with an international river dispute was the resolution of the difference between India and Pakistan concerning the Indus River. From 1951 until 1960, with the signing of the Indus Waters Treaty, the International Bank for Reconstruction and Development moved from the good offices with which it was initially charged to conciliation, involving the active participation of the Bank in working out possible bases for the settlement of the dispute. The hand of the Bank was, of course, strengthened by the fact that it held the purse-strings, so that the negotiations ultimately became tripartite ones involving the two states and the Bank.⁹ Mediation or conciliation is less likely to be effectual in river disputes when the third party merely tries to bring the two states together.

The activities of Ambassador Eric Johnston in the mid-fifties are properly described as conciliation, as he put forward affirmative proposals for the resolution of the dispute over the Jordan Basin.

Arbitration: Arbitration involves impartial and binding third-party settlement of a dispute by a tribunal bound by the rules of international law (or such other law as may have been stipulated by the parties). The arbitral tribunal employed may either be one already constituted or an ad hoc tribunal specially convened for the purpose. The Helsinki Rules are amongst the texts recommending this as a mode of settlement for international river disputes.¹⁰

Arbitration is not widely employed on water matters in these days, although there were a number of such cases in the past.¹¹ The most important case of recent years has been the Lake Lanoux Arbitration (France v. Spain),¹² arising out of the proposal of France to carry out works for the utilization of the waters of the Lake, works which Spain feared would adversely affect its interests. It was an arbitral tribunal that decided that great landmark case on the international aspects of the environment, the Trail Smelter Case (United States/Canada),¹³ the principles enunciated in which have an important bearing on the pollution of international rivers.

Judicial Settlement: By this is meant basically recourse to the International Court of Justice, a decision

by which would be binding upon the parties to the litigation. The International Court and its predecessor, the Permanent Court of International Justice, have seldom had to deal with river issues. The two major cases before the Permanent Court, the Territorial Jurisdiction of the International Commission of the River Oder¹⁴ and the Diversion of Water from the River Meuse,¹⁵ both turned fundamentally on the construction of treaties, and the Court has never had occasion to deal with a pure question of allocation of river waters.

As has been emphasized at several points in this study, the law of international rivers is so general that it does not offer a certain and predictable guide to the decision of cases. Submission of a river dispute to arbitration or to the International Court entails entrusting the Court with the function of deciding, largely as a matter of policy rather than of law, what would be a fair and equitable resolution of the dispute. The decision is also static in that at best it lays down rules of conduct for the parties that may be of long duration, whereas what is actually needed is a régime for the river which can be adapted to changing circumstances. The existence of machinery, such as an international commission for the river established through a treaty, will enable the river to be administered in much the same way as a wholly internal watercourse.

Other forms of dispute settlement: The matter of works on the Jordan has more than once been taken to the Security Council for consideration by that body, but the Security Council has not been successful in resolving these questions.¹⁶

At the most recent session of the General Assembly, Bangladesh laid its case against India for the diversion of waters of the Ganges at the Farakka Barrage before that body. The parties were able to reach a consensus statement that they would resume negotiations at the ministerial level, which had been one of the objectives of Bangladesh.¹⁷

* * *

The best way in which to avoid and to settle disputes about international rivers and about the waters of international drainage basins remains negotiations leading to the conclusion of an international agreement -- preferably one regulating the use of the river and providing for an administrative structure through which the parties can jointly exploit the river to the maximum benefit of all.

FOOTNOTES TO CHAPTER VIII

1. F. J. Berber, *Rivers in International Law* 270 (1959), citing H. A. Smith, *The Waters of the Jordan*, 25 *Int'l Affairs* 415 (1949).
2. Report of the Indus (Rau) Commission and Printed Proceedings 10 (Simla, 1941; reprinted in Lahore, 1950), as quoted in J. G. Laylin and R. G. Bianchi, *The Role of Adjudication in International Water Disputes*, 53 *Am. J. Int'l L.* 30, 32-33 (1959).
3. 320 U.S. 383, 392 (1943).
4. See H. Brownell and S. Eaton, *The Colorado Salinity Problem with Mexico*, 69 *Am. J. Int'l L.* 255 (1975); R. Bilder, *The Settlement of Disputes in the Field of the International Law of the Environment*, 144 *Hague Recueil* 139, 171-174 (1975), and see p. 95 *supra*.
5. Signed at The Hague, 18 Oct. 1907, 36 *Stat.* 2199, T.S. No. 536. Israel is a party to this treaty.
6. *Management of International Water Resources: Institutional and Legal Aspects*, *Natural Resources/Water Series No. 1*, at 147-148, U.N. Doc. ST/ESAT/5 (1975).
7. R. Bilder, *The Settlement of Disputes in the Field of the International Law of the Environment*, 144 *Hague Recueil* 139, 176-179 (1975).
8. Art. XXXII, Report of the Fifty-Second Conference Held at Helsinki, August 14th to August 20th, 1966, at 527 (1967).
9. R. R. Baxter, *The Indus Basin* in A. H. Garretson, R. D. Hayton, and C. J. Olmstead (eds.), *The Law of International Drainage Basins* 443, 457-472 (1967).

10. Art XXXIV; and see J. G. Laylin and R. G. Bianchi, *op. cit. supra* note 2.
11. See [1974] 2 Y.B. Int'l L. Comm'n, Part 2, at 188-192, U.N. Doc. A/CN.4/SER.A/1974/Add.1 (Part 2) (1976).
12. 24 I.L.R. 101 (1961).
13. (1938 and 1941), 3 U.N. Rep. Int'l Arb. Awards 1905 (1949).
14. [1929] P.C.I.J., ser. A, No. 23.
15. [1937] P.C.I.J., ser. A/B, No. 70.
16. For example, in 1953, Syria brought to the Security Council a complaint about works by Israel on the west bank of the Jordan in the demilitarized zone (U.N. Doc. S/3108/Rev. 1 (1953)). After consideration of the matter from October of that year until January 1954, the Security Council failed to reach agreement on a resolution to deal with the question. 8 U.N. SCOR (629th, 631st, 633d, 636th, 639th, 645th, 646th, 648th to 654th mtgs.), U.N. Docs. S/PV. 629, 631, 633, 636, 639, 645, 646, 648-654 (1953); 9 *id.* (655th and 656th mtgs.), U.N. Docs. S/PV. 655 and 656 (1954).
17. Situation Arising out of Unilateral Withdrawal of Ganges Waters at Farakka: Report of the Special Political Committee, U.N. Doc A/31/359 (1976), and Consensus statement approved at the 27th meeting, on 24 November 1976, U.N. Doc. A/SPC/31/7 (1976).
18. See Management of International River Resources: Institutional and Legal Aspects, Natural Resources/Water Series No. 1, at 147-148, U.N. Doc. ST/ESA/5 (1975).

CHAPTER IX

NATIONAL WATER LAW IN ISRAEL AND JORDAN

A. The Internal Water Law of Jordan

The ownership and use of rights to water in Jordan are governed by Law No. 12 of 1968, The Organization of Natural Resources Affairs Temporary Law,¹ which was a consolidation of earlier laws bearing on this subject.

The waters that are subject to legal regulation include "all surface and underground water resources, including rivers, streams, wadis, lakes, reservoirs, cisterns, water springs, rainfalls."² These waters may in principle be privately or publicly owned. The water that is found on private land belongs to the landowner. Under Law No. 40 of 1952 on the Settlement of Land and Water Rights, landowners were required to "settle" (i.e. register) their water rights in the Register provided for that purpose, and it is a condition of landowners' use of water that this registration have taken place.³ The water rights run with the land and cannot be transferred separately from it.

However, large areas of water, including the waters of lakes or reservoirs or flowing in rivers and streams are mubah waters belonging to the community.⁴ Any water produced through an irrigation project, over and above

that in private ownership under the Water Register, is also public property.⁵

Law No. 14 of 1959 establishing the East Ghor Canal Authority (no longer in force) provided for a program of expropriation of land ownership and water rights, accompanied by a redistribution of lands in the area of the Jordan Valley under administration by the Authority.⁶

The Government acquired the land by compulsory purchase, paid compensation for it over ten years and sold the surplus land on twenty-year terms. All private water rights have been extinguished through compulsory purchase by the Government of Jordan, with the exception of some rights to springs and wells in the hills. The Government, having acquired all the water rights in the East Ghor area, now sells the water to the farmers. The farmer pays a flat sum for the right to have his land irrigated and also a charge per cubic meter. The transaction is thus largely an accounting one: The Government acquires the water rights, pays the farmer, and the farmer, who has been compensated, then buys his water from the Government. There is no limitation placed on the amount of water the farmer uses, except in the case of water for the irrigation of citrus fruits, with respect to which a permit is required.⁷

The Natural Resources Authority was accorded this power of compulsory purchase of water rights,⁸ as was the former East Ghor Canal Authority.⁹ The Jordan Valley

Commission, under its constitutive act,

. . . shall have the right of acquisition and immediate possession by virtue of effective laws, of land and water rights or both and any other easements relating to land or water in the areas falling within the Jordan Valley.¹⁰

There is thus no legal impediment to the development of the waters of the Yarmuk and Jordan Rivers posed by the private ownership of water rights.

On a broader basis, the Natural Resources Authority has full powers "respecting allotment and use of surface and groundwaters developed under the supervision of the Authority," and it is forbidden "to divert water from a water basin to the outside."¹¹

Pollution of waters -- that is to say, "the change of the natural, chemical or biological characteristics of water to an extent which limits or may limit its suitability for use" -- is forbidden.¹² Because of the absence of industry in the Jordan Valley, pollution is considered not to be a problem.¹³ Apparently the increase in salinity through the use of water for irrigation is not considered to be a form of "pollution," in the sense in which that term is used in the law of Jordan. The law with respect to the environmental protection of water resources seems to be of a primitive character.

FOOTNOTES TO CHAPTER IX, SECTION A

1. English translation supplied by the Jordan Valley Commission. The most detailed exposition of Jordanian water law in English is in Food and Agriculture Organization of the United Nations, Irrigation and Drainage Paper 20/1, Water Laws in Moslem Countries 97 (D.A. Caponera ed., 1973) [hereinafter cited as Caponera]. I am indebted to Dr. Caponera, the Chief, Legislative Branch, Water Resources and Development Service, Land and Water Development Division, F.A.O., for partial English translations of some of the applicable laws. J. L. Dees, Jordan's East Gohr Canal Project, 13 Middle East Journal 357, 360-362 (1959) contains a short description of the law as it stood nearly two decades ago.
2. Law No. 12 of 1968, art. II, para. 3.
3. Caponera at 99.
4. Ibid.
5. Law No. 12 of 1968, art. LXV.
6. Caponera at 113.
7. Interviews with Mr. Omar Abdullah Dokhjan, President, Jordan Valley Commission, and a governmental expert, 16 and 17 Oct. 1976.
8. Law No. 12 of 1968, art. 19, Caponera at 113.
9. Law No. 14 of 1959 establishing the East Gohr Canal Authority.
10. Law No. 2 of 1973, Jordan Valley Commission Law, sec. XI (English translation furnished by the Jordan Valley Commission).
11. Law No. 12 of 1968, art. XVI.

12. Law No. 12 of 1968, art. II, para. 11, and art. 28(A).

13. Interviews as identified note 7, supra.

B. The Internal Water Law of Israel

"The water resources in the State," the Water Law of Israel begins, "are public property."¹ This has been the governing principle in the area since the days of the Mandate.²

Water resources are defined to mean:

. . . springs, streams, rivers, lakes and other currents and accumulations of water, whether above ground or underground, whether natural, regulated or man made, and whether water rises, flows or stands at all times or intermittently, and includes drainage water and sewage water.³

Water resources are subject to four principal types of licensing arrangements:

- Establishment licenses. If a person is to establish any works or installations for the production or diversion of water (other than for a system under the control of the person concerned), he must obtain an establishment license.⁴
- Production licenses. A person is not to produce water from a resource or to supply water to another without a production license, which indicates the quantity of water which the holder is permitted to produce and supply.⁵ Such a license is good for one year.
- Recharging licenses. Recharging means the planned introduction into the subsoil of water from any resource, whether by direct recharging of wells, cisterns, or borings or by causing water to per-

colate from the surface to the subsoil.⁶ A license is required for such activity.

-- Drilling licenses. If one is to install a well, he must have a license.⁷

All four types of licenses are issued by the Water Commissioner, who is appointed by the Government to manage the water affairs of the State. He has wide discretion in the management of the water affairs of Israel within the limits established by the Water Law.⁸

The supply of water has been put on a systematic basis through the National Scheme and regional schemes of water supply. The National Water Authority establishes and manages the national system, supplies water from it, maintains it in proper condition, and improves and enlarges it.⁹ The same functions are performed on a regional level through regional water authorities.¹⁰ These authorities give effect to schemes for water supply systems that have been approved by a Planning Commission appointed by the Minister of Agriculture.¹¹ The water authorities may acquire land, construct works, or take possession of the waters, subject to the payment of compensation.¹² The authorities then supply water to their consumers.¹³

Drainage authorities are established within drainage districts to deal with the concentration and removal of harmful waters, including flood waters.¹⁴

The norms for the use of water, the quantity and quality to be supplied, and the price are established by the Minister of Agriculture in consultation with the Water Board,¹⁵ appointed by the Government and consisting of 39 persons drawn from the Government and from the public.¹⁶ He may either prescribe rules for the calculation of water charges or actually prescribe the tariffs.¹⁷ The supply of water is required to be metered.¹⁸ The Water Commissioner may introduce rationing, if it is called for.¹⁹ No one has a right to any prescribed quantity of water, except that, in order not to cut off the supplies of those using water at the time of the coming into force of the Water Law, a production license for the existing quantity must be issued to anyone supplying or producing water at that time.²⁰

The Water (Amendment No. 5) Law of 1971 prohibits "any act which directly or indirectly, immediately or later, causes or may cause water pollution" and the throwing or causing to flow of any "liquid, solid or gaseous substance" into a water resource.²¹ The Minister of Agriculture is authorized to issue regulations to control pollution.²² The Water Commissioner may issue "stop orders" to deal with pollution and take emergency measures in appropriate cases;²³ he may also issue "authorizing orders" for benign changes in the quality of water or when disposal of sewage into a particular water resource may be required for a determinate period.²⁴

FOOTNOTES TO CHAPTER IX, SECTION B

1. Water Law, 5719-1959, passed by the Knesset on the 28th Tammuz, 5719 (3 Aug. 1959) and published in Sefer Ha-Chukkim No. 288 of the 9th Av, 5719 (13 Aug. 1959) at 169, as amended, sec. 1, English translation in S. Aloni (ed.), The Water Laws of Israel 1 (2d ed. 1970) [hereinafter Aloni]. All citations are to this compilation, except as otherwise noted.
2. Aloni at IV.
3. Water Law, sec. 2, Aloni at 1.
4. Water Law, sec. 22A, Aloni at 6.
5. Water Law, sec. 23, Aloni at 7.
6. Water Law, sec. 44A, Aloni at 15.
7. Water Drilling Control Law, 5715-1955, passed by the Knesset on the 9th Sivan 5715 (30 May 1955) and published in Sefer Ha-Chukkim No. 182 of the 18th Sivan, 5715 (8 June 1955), as amended, sec. 4, in Aloni at 61.
8. Water Law, sec. 138, Aloni at 55 and at II.
9. Water Law, sec. 48, Aloni at 25.
10. Water Law, sec. 50, Aloni at 26.
11. Water Law, secs. 62-67, Aloni at 29-30.
12. Water Law, sec. 77, Aloni at 33.
13. Water Law, sec. 96, Aloni at 41.
14. Drainage and Flood Control Law, 5718-1957, passed by the Knesset on the 26th Cheshvan 5718 (20 Nov. 1957) and published in Sefer Ha-Chukkim No. 236 of the 6th Kislev, 5718 (29 Nov. 1957), as amended, Aloni at 72.

15. Water Law, sec. 21, Aloni at 6.
16. Water Law, secs. 125-130, Aloni at 50-52 and at III.
17. Water Law, secs. 111 and 112, Aloni at 44.
18. Water Metering Law, 5715-1955, passed by the Knesset on the 9th Sivan, 5715 (30 May 1955) and published in Sefer Ha-Chukkim No. 182 of the 18th Sivan, 5715 (8 June 1955), as amended, sec. 2(a), Aloni at 67.
19. Water Law, sec. 36, Aloni at 12.
20. Water Law, sec. 26, Aloni at 7.
21. Passed by the Knesset on the 11th Kislev, 5732 (29 Nov. 1971) and published in Sefer Ha-Chukkim No. 640 of the 21st Kislev, 5732 (9 Dec. 1971), sec. 20B.
22. Id., sec. 20D
23. Id., secs. 20I and 20J.
24. Id., sec. 20K.

C. The Concession Granted to the Palestine Electric Corporation Limited (Now The Israel Electric Corporation)

The history of the concession granted in 1926 to The Palestine Electric Corporation Limited goes back to a curious encounter in 1921. Mr. Winston Churchill, then Secretary of State for the Colonies, visited Palestine in March of that year. As recorded by Norman Bentwich,

While he [Churchill] was staying at Government House, Mr. Rutenberg, a Russian-Jewish engineer who had been one of Kerensky's principal lieutenants in the short-lived Socialist Government of Russia, submitted a comprehensive scheme for the use of the waters of the Jordan for the generation of hydro-electric power. The plans had been worked out by him during the two previous years, and in their imaginative simplicity captured the mind of the imaginative Minister. It was decided in principle that the Government of Palestine should grant a concession for the generation and distribution of electric power throughout Palestine to Mr. Rutenberg. The scheme opened possibilities of irrigation on a large scale, and also of industrial development; and it was to become the symbol of the struggle between the demand for progress in Palestine and the sentiment for maintaining the Holy Land in its pristine simplicity.¹

On 21 September of that year, Mr. Rutenberg was able to reach an agreement with the Crown Agents for the grant of a concession for the generation of hydro-electric power on the Jordan, on the condition that he should create a company with a capital of £E 1,000,000, with an immediate subscription of £E 200,000.² According to Bentwich,

Every obstacle, political and economic, was raised [to the concession]; and a special Press agitation was concentrated on this project of developing the resources of Palestine by Jewish enterprise and Jewish capital.³

The Rutenberg Concession was linked with the whole issue of the terms of the British mandate for Palestine and with what some alleged to be a violation of British undertakings to the Arabs during the First World War. In a debate in the House of Commons on 4 July 1922, Sir W. Joynson-Hicks raised objections to the Rutenberg Concession on the grounds that the whole administration of Palestine was being put in the hands of Zionists, that the concession had not been put out to tender, and that the concession, which would be granted for a term of 70 years, gave away too much.⁴

Prophetically, another speaker, Sir J. Butcher, asked

Will these obligations pass to a new Government in Palestine, which will supervene long before the lapse of your 70 years, and may be tied up by these obligations incautiously entered upon by the Government of the day?⁵

Churchill spoke in defense of the Mandate and of the Rutenberg Concession:

. . . [O]f all the enterprises of importance which would have the effect of greatly enriching the land none was greater than the scientific storage and regulation of the waters of the Jordan for the provision of cheap power and light needed for the industry of Palestine, as well as water for the irrigation of new lands now desolate. This would have been carrying out your policy, not only the policy of the Government, and it was the only means by which it could be done without injuring vitally the existence of the Arab inhabitants of the country. It would

create a new world entirely, a new means of existence. And it was only by the irrigation which created and fertilised the land, and by electric power which would supply the means of employing the Arab population, that you could take any steps towards the honest fulfilment of the pledges to which this country and this House, to an unparalleled extent of individual commitment, is irrevocably committed.⁶

In alluding more specifically to the Rutenberg Concession, Churchill defended the award of the concession to Rutenberg rather than a British firm; there had been, he remarked, no "stream of applications" for the concession. Rutenberg "had behind him all the principal Zionist societies in Europe and America, who would support his plans on a non-commercial basis," and "Nearly all the money got up to the present time has come from associations of a Jewish character, which are almost entirely on a nonprofit-making basis."⁷ He attached particular importance to such schemes of development in order to reduce the costs of administration to which Great Britain had been subjected.⁸

The matter was voted on as a vote of confidence. The outcome was 35 ayes (i.e., to express disapproval of the Government's handling of the concession) and 292 noes (i.e., to uphold the Government).⁹

The concession of 21 September 1921 that had been granted to Rutenberg then came under attack from another quarter. In 1914 the Turkish authorities had granted a Greek national named Mavrommatis concessions for water

supply and electricity in Jerusalem and in Jaffa.¹⁰

Mavrommatis claimed that the Rutenberg Concession was in contravention of his rights under these concessions. When his own applications to the British Government proved unavailing, the Greek Government espoused and presented his case in the Permanent Court of International Justice.

The Court expressed the view, at the jurisdictional phase of the proceedings, that,

. . . [T]he Rutenberg concessions constitute an application by the Administration of Palestine of the system of "public control" with the object of developing the natural resources of the country and of operating public works, services and utilities. Thus envisaged, these concessions may fall within the scope of Article 11 of the Mandate.¹¹

Article 11 of the Mandate provided:

The Administration of Palestine shall take all necessary measures to safeguard the interests of the community in connection with the development of the country, and, subject to any international obligations accepted by the Mandatory, shall have full power to provide for public ownership or control of any of the natural resources of the country or of the public works, services and utilities established or to be established therein . . .¹²

Public control was held to embrace certain forms of action taken by the State with regard to otherwise public undertakings.

The Rutenberg Concessions may thus be seen as deriving from authority granted to the Mandatory under Article 11 of the Mandate.

On the merits, the Permanent Court dismissed the claim of the Greek Government on the grounds that,

The Court therefore considers that even if the clause in Article 29 of the conditions of M. Rutenberg's concession is to be regarded as contrary to the Mandatory's international obligations, in so far as it gave M. Rutenberg the right to require the expropriation of concessions conflicting with his own, this clause has not in fact led to the expropriation or annulment of M. Mavrommatis' concessions, or caused him any loss which might justify a claim on his behalf for compensation in the present proceedings.¹³

Pursuant to the advice of the Court that "the beneficiary is entitled to claim that they [the concessions] should be brought into conformity with the new economic conditions by means of readaption," Mavrommatis entered into new contracts with the Crown Agents for the Colonies on 25 and 26 February 1926.¹⁴

To return to the actual implementation of the concession granted to Rutenberg, the Company contemplated by the concession was incorporated in Palestine in 1923. This was The Palestine Electric Corporation Limited ["the Company"] with its registered office in Jerusalem.

On 5 March 1926, the High Commissioner for Palestine concluded with the Company a concession granting the Company the exclusive right to utilize the waters of the River Jordan and its basin, including the Yarmuk River and all other affluents of the Jordan, for the generation of electricity.¹⁵ Clause 3 of the Concession provided in part:

The High Commissioner hereby grants to the Company for the period of 70 years computed from the day of the date hereof an exclusive Concession for the utilization (a) of such of the waters of the River Jordan and its basin including the Yarmuk River and all other affluents of the River Jordan and its basin as are now or shall hereafter be brought within the control or supervision of the High Commissioner and (b) of such of the waters of those parts of the River Jordan and its basin together with the affluents thereof including the River Yarmuk and its affluents outside the boundaries of the territories under the control of the High Commissioner as shall under the Anglo-French Convention dated 23rd December 1920 or otherwise howsoever have been or be determined to be available for utilization for the purposes of Palestine and or Trans-Jordan, for the purpose of generating by power derived from such waters and supplying and distributing within the Concession Area electrical energy: and for those purposes or any of them to erect a power house near Jisr-el-Majami and to employ and use Lake Tiberias as a reservoir for the storage of water in connection therewith and to erect any other power house or power houses (with the corresponding reservoirs if necessary) which the Company may think fit to erect and with liberty also for the Company during the said period to produce, supply and distribute electrical energy within the Concession Area generated by any other means than water power: and it shall be lawful for the Company to grant licences to others for all or any part of the said term to utilize the said waters or any part thereof for the purpose of generating electrical energy and to generate electrical energy by any other means as aforesaid and to execute and operate all works necessary for that purpose and for supplying and distributing the same . . .

Clause 18 of the Concession gave the Company the exclusive right to produce, distribute, supply, and sell electricity within the Concession area provided that the High Commis-

sioner would not grant any other concession for the construction of dams, reservoirs, canals, or watercourses.

As recounted by Bentwich,

The principal modifications concerned the application of the agreement to Transjordan; and the happier understanding which was established between Transjordan and Palestine, on the one hand, and Jews and Arabs on the other, combined to make it possible for the Palestine Electric Corporation to come to terms with the Emir Abdullah's Government, to purchase state domain for the site of the power house which was in Transjordan territory, and in 1927 to start on the work of the Jordan dam.¹⁶

In Transjordan, the Concession was given effect through the Electricity Concession Law, 1928,¹⁷ which, with minor modifications, made the Concession valid for Transjordan, as if Transjordan were simply substituted for Palestine in the instrument. Section 9 of the Law provides that Transjordan may "from time to time, regulate for the purpose of irrigation, the use of the waters of the Jordan and Yarmuk rivers and their affluents flowing through the territory of Transjordan," subject to the provisos contained in Clause 11(a) of the Concession, which required the enactment of legislation forbidding the reduction of the quantity of water below that required for the generation of electricity.

A dam was constructed on the Yarmuk near the confluence of that river with the Jordan. The water impounded in the reservoir was used to generate electricity at a power plant

constructed on the east bank of the Jordan. A Jewish settlement was established in Transjordanian territory on the east bank in connection with the operation of the power plant.¹⁸

Transjordan became an independent state in 1946. Under Article 10 of the Treaty of Alliance between the United Kingdom and Transjordan which was concluded in that year,

It is agreed by the High Contracting Parties that commercial concessions granted in respect of Trans-Jordan territory prior to the signature of this Treaty shall continue to be valid for the periods specified in their text.¹⁹

The Treaty of 1946 was replaced by a new Treaty of Alliance in 1948, which did not contain an article corresponding to Article 10, but a note from the Prime Minister of Transjordan which was annexed to the Treaty stipulated that,

At the moment of the signature of the revised Treaty of Alliance I have the honour to state that although the new treaty contains no provisions similar to those contained in Articles 2, 3, 8 and 10 of the Treaty of Alliance signed on the 22nd of March, 1946, their omission does not imply any intention to derogate from the principles set forth in those Articles.²⁰

Transjordan thus by treaty agreed to carry out the provisions of the Concession granted to the Company in 1926 and approved by Transjordan in 1928.

With the termination of the mandate for Palestine on 14 May 1948, the Company received and carried out certain

instructions from the Government of Transjordan about its activities. However, when hostilities broke out between Israel and Jordan, the power station was seized and destroyed by the Arab forces, and it has remained inoperative since that time.²¹ On 16 December 1948, the Government of Transjordan published three official announcements that economic agreements by which the Government was bound through the British Government were null and void.²² Lord Samuel, the Chairman of the Board of Directors of the Company, visited the King of Transjordan on 19 April 1949 and requested the return of the power station, a request which was confirmed in a letter from Lord Samuel to the Prime Minister of Transjordan of 25 April 1949.²³

On 3 July 1953, Messrs. Cahill, Gordon, Zachry & Reindel, as counsel for the Palestine Electric Corporation Limited, approached Ambassador Henry Cabot Lodge, Permanent Representative of the United States to the United Nations,²⁴ the Secretary General of the United Nations, the British Government, and other governments as well to express concern over the Preliminary Agreement that had been concluded on 30 March 1953 between The Hashemite Kingdom of Jordan and the United Nations Relief and Works Agency for Palestine Refugees in the Near East concerning the Yarmuk-Jordan Valley Project. Counsel pointed out that,

Palestine Electric Corporation has the concessionary rights to the exclusive use of the waters in question and for the pro-

vision of such an electric power system. It calls attention to its well-acquired rights and its intention to vindicate those rights.

In the consultations that took place in Washington, the British Government took the view that "the question of the Corporation's concessionary rights is a matter between the Corporation and the Governments of Jordan and Israel, upon whom have devolved the obligations which formerly rested on the High Commissioner for Palestine."²⁵ The Department of State thought the continuing validity of the concession "may be somewhat more legally debatable than Her Majesty's Government would appear to have concluded"; the matter was one between the Company and the successor state.²⁶ But it could agree that Great Britain's interests made it reasonable for that country to consider, as it had proposed, to make informal representations to the Government of Jordan "in support of any reasonable proposals which might be put forward." What was ultimately communicated to Cahill, Gordon and to the Government of Jordan does not appear from the Department of State files.

Later in 1953, Mr. Eban alluded to the concession held by the Company when he defended the Banat Ya'qub canal project against the objections that had been raised by Syria in the Security Council:

This project is being carried out under the concession granted on 5 March 1926 to the Palestine Electric Corporation, a concession for the utilization of the waters

of the rivers Jordan and Yarmuk for generating and supplying electric energy. This concession constitutes a legally established private right, deriving from the period before Israel's establishment. It is a right which, according to the principles of international law, any government would be obliged to respect and to uphold.²⁷

Sevette records action taken by the Council of Ministers of Jordan on 31 August 1953 and confirmed by the Council of the Throne on 15 September 1953 unilaterally to revoke the Concession of 1926. No further information has been found on this score, but there is room for the view that this further action was prompted by the flurry of interest in the Concession that had taken place in that year and that Jordan was attempting to clarify its legal position.²⁸

It is understood that the name of the Palestine Electric Corporation Limited was changed in 1964 to Israel Electric Corporation Limited. The main shareholder is the State of Israel, which holds 70,054,127 ordinary shares and 42,000,000 B shares. The rest of the shares are traded on the Tel Aviv Stock Exchange (36,510,776 shares) and the London Stock Exchange (2,415,773 shares).²⁹

It is by no means clear whether the Concession of 1926 continues to have any application to the ruined installations at the Palestine Power Pool or -- much more importantly -- to the generation of power on the Yarmuk and Jordan. If it does, then the Concession would preclude the construction and operation of electrical generating installa-

tions at the Maqarin Dam, since the Israel Electric Corporation Ltd., as successor to the Palestine Electric Corporation Ltd., has the exclusive right to generate such electricity.

The matter is one for resolution between Israel and Jordan. The Israel Electric Corporation is an Israeli corporation, which may be protected by Israel, the state of its nationality.³¹ The small number of shares held by British nationals does not give that state any standing to present a claim on behalf of the Corporation or those shareholders.

The issues that would have to be resolved in order to determine whether the Concession of 1926 still imposes obligations on Jordan are as follows:

1. Did Israel succeed to the rights of Palestine and Jordan to the rights of Transjordan under the Concession? This is a case of double succession in that both the granting entity -- the Mandatory -- and the political unit which might be asserted to be subject to the obligations of the concession were both succeeded by other states -- Palestine by Israel and Transjordan by Jordan. Israel's position is clear. Under Section 19(a) of the Law and Administration Ordinance, 5708-1948, Israel directed that any "right or concession" given by the High Commissioner should continue in force until varied or revoked. In Pales Ltd. v Ministry of Transport,³¹ the Supreme Court of Israel denied that

Israel was the successor to Mandated Palestine but expressed the view that, by virtue of Section 19(a), Israel remained bound by concessions granted by the Mandatory authorities in their governmental capacity. One of the examples given in one of the judgments in the case was the concession granted to the Palestine Electric Corporation.³² That Israel considered the concession still in force is further borne out by Mr. Eban's statement in 1953, to which reference was made above.³³ Whether Jordan remains bound is another question. The view of O'Connell, the leading authority on the subject in the common law world, is that the "acquired rights of a concessionaire must be respected by a successor State."³⁴ However, Jordan never acknowledged to Israel that the rights granted to the Palestine Electric Corporation continued to impose obligations on Jordan. Indeed, Jordan purported to terminate the concessions, in so far as they affected Jordan, by its official announcements of 16 December 1948 and by the action taken in 1953.³⁵ The obligation assumed by Jordan under the Treaty of Alliance of 1946 and confirmed by the letter annexed to the Treaty of 1948³⁶ ran to Great Britain and did not necessarily benefit either Israel or a company having the national character of Israel.

The application of the Concession of 1926, at least to the territory of Jordan, may be considered to have lapsed by reason of the termination of the Mandate, which

was an essential foundation for the Concession. The United States note of 29 September 1953 stated,

In addition, the Palestine Electric concession may be construed as limiting the concessionary right to the time during which the British were in administration of the area, since it refers to waters within the control or supervision of the High Commissioner of Palestine. Waters outside this territory are included but, in this connection, primary reference is made to the Anglo-French Treaty of December 23, 1920, dealing with mutual mandate problems. This also may be considered as limiting the concession to mandate circumstances.³⁷

2. Did the de facto state of war between Jordan and Israel have the effect of terminating the Concession?

McNair and Watts sum up the general rule with respect to the effect of war on executory contracts (that is, contracts that have not yet been fully executed) between a party in Great Britain and a party in the enemy country:

The commonest effect is abrogation as from the outbreak of war. This effect may result either (1) because one of the parties is in this country and the other becomes on the outbreak of war an enemy in the territorial sense, or (2) because, whoever and wherever the parties may be, the outbreak of war makes performance or further performance illegal.³⁸

So far as contracts (including concessions) between the Crown and enemy nationals are concerned, the learned authors state:

Can it be said that, 'the presumed object of war being as much to cripple the enemy's commerce as to capture his property', the Crown may lawfully treat a contract as abrogated on the ground that its perfor-

mance would tend to enrich the resources of the enemy and facilitate his prosecution of the war against us? It is submitted that the English Court would award damages against the Crown on a petition of right for doing during the war the very thing which the law enjoins upon the subjects of the Crown, namely, to treat as abrogated a contract tending to enrich the resources of the enemy or diminish our own.³⁹

The international adjudications were sparse, but in Rosenstein v. German State of Hamburg, the Germano-Rumanian Mixed Arbitral Tribunal held that,

A State had the right to take away, on the ground of the general interest, concessions relating to public works for a contractor who had become in consequence of a declaration of war a national of an enemy Power . . .⁴⁰

When compensation has been provided for the taking of concessionary rights in time of war, this has come about as the result of the provisions of a treaty. Italy, for example, was required to pay compensation for the larcenous exploitation during the Second World War of a concession granted by Italy to a firm owned by British subjects, but this duty was imposed on Italy by Article 78 of the Treaty of Peace with that country.⁴¹

The law as enunciated above stands somewhere between international and municipal law. The law of the United States is fully in conformity with these principles. For example, in Second Russian Insurance Co. v. Miller, Alien Property Custodian, the Court held that,

. . . [E]xecutory contracts between citizens of different countries at war, which neces-

sarily involve intercourse and thereby tend to give aid and comfort to the enemy, are dissolved and terminated.⁴²

The concession here in issue is one between Jordan and an Israeli company, on the assumption that Jordan and Israel succeed to the rights and duties of Transjordan and Palestine respectively. Jordan was entitled to abrogate the Concession of 1926 in so far as it may have been bound by that contract by way of succession. It is not known on precisely what basis the termination of the Concession was effected by Jordan in 1948 or 1953,⁴³ but it appears that Jordan was acting within the scope of its rights in terminating the Concession.

In any event, the matter of the continuing force of the Concession of 1926 is one for ultimate resolution by Israel and Jordan. Relations between them have been interrupted by the war, and it cannot be expected that there should be any resolution of the matter until arrangements have been made for the resumption of peaceful relations.

FOOTNOTES TO CHAPTER IX, SECTION C

1. England in Palestine 64 (1932). Bentwich was Attorney-General of Palestine from 1922 to 1931.
2. 156 Parl. Deb., H.C. (5th ser.) 315 (1922).
3. Bentwich, *op. cit. supra* note 1 at 74. The text of the concession is reproduced in *The Mavrommatis Jerusalem Concessions*, [1924] P.C.I.J., ser. C, No. 5-I at 354.
4. 156 Parl. Deb., H.C. (5th ser.) 292-308 (1922).
5. *Id.* at 319.
6. *Id.* at 334.
7. *Id.* at 338.
8. *Id.* at 340.
9. *Id.* at 342.
10. *Convention relative à la Concession de la Distribution Publique d'Énergie Électrique et de Tramways Électriques de la Ville de Jérusalem*, signed 14/27 January 1914, and *Énergie et Tramways Électriques de Jaffa: Convention et Cahier de Charges*, signed 28 January 1916, *The Mavrommatis Palestine Concessions*, [1924] P.C.I.J., ser. C., No. 5-I at 133 and 235.
11. *The Mavrommatis Palestine Concessions (Jurisdiction)*, [1924] P.C.I.J., ser. A, No. 2, at 21, 1 Hudson, *World Court Reports* 293 at 309 (1934).
12. *Mandate for Palestine*, League of Nations Doc. C.529.M.314.1922.VI.
13. *The Mavrommatis Palestine Concessions (Merits)*, [1925] P.C.I.J., ser. A, No. 5, at 45, 1 Hudson, *World Court Reports* 355 at 385 (1934); see J. Stoyanovsky, *The Mandate for Palestine* 143-149 (1928).

14. Editor's Note, 2 Hudson, World Court Reports 93 (1935).
15. "Concession granted to the Palestine Electric Corporation for the utilization of waters of the Rivers Jordan and Yarmuk for generating and supplying electrical energy, dated the 5th day of March 1926," Schedule to the Electricity Concessions Ordinance 1927, [1927] Official Gazette of the Government of Palestine 154.
16. England in Palestine 148 (1932).
17. Electricity Concession Law, 1928, Gazette No. 177, 23 Jan. 1928, English translation in C.R.W. Seton (ed.), Legislation of Transjordan 1918-1930, at 160 (1931)
18. Bentwich, England in Palestine 308 (1932).
19. Signed at London, 22 March 1946, 6 U.N.T.S. 143, 147.
20. Letter No. XI, Prime Minister of the Government of the Hashemite Kingdom of Transjordan to His Majesty's Minister at Amman, annexed to the Treaty of Alliance between His Majesty in respect of the United Kingdom of Great Britain and Northern Ireland and His Majesty the King of the Hashemite Kingdom of Transjordan, signed at Amman, 15 March 1948, 77 U.N.T.S. 77, 100.
21. P. Sevette, Legal Aspects of the Jordan Valley Development, prepared at the request of the United Nations Relief and Works Agency for Palestine Refugees, Geneva, 8 Oct. 1953, at 33.
22. Note from the Department of State to the British Embassy, Washington (semble), 29 Sep. 1953, on file in the Department of State.
23. Letter from Messrs. Cahill, Gordon, Zachry & Reindel to Ambassador Henry Cabot Lodge, 3 July 1953, on file in the Department of State.

24. Ibid.
25. Note from the British Embassy, Washington, to the Department of State (semble), 11 Sep. 1953, on file in the Department of State.
26. Note cited note 22 supra.
27. 8 U.N. SCOR (633d mtg.) 16 (1953), U.N. Doc. S/PV.633 (1953).
28. Sevette opinion cited supra note 21.
29. Information supplied by the Agency for International Development, on basis of data furnished by Bank Leumi.
30. Case Concerning the Barcelona Traction, Light and Power Company, Ltd. (New Application: 1962) (Belgium v. Spain), Second Phase, [1970] I.C.J. 3.
31. 22 I.L.R. 113 (1955).
32. Judgment of Justice Silberg, id. at 121.
33. See p. 165 supra.
34. I D. P. O'Connell, State Succession in Municipal Law and International Law 345 (1967).
35. See pp. 164 and 166 supra.
36. As cited notes 19 and 20 supra.
37. As cited note 22 supra.
38. The Legal Effects of War 122 (1966); accord: Stone, Legal Controls of International Conflict 430-431 (1954).
39. Id. at 146-147.
40. (1930), 5 Ann. Dig. 482 (1929-30).
41. Raibl Claim (Anglo-Italian Conciliation Commission, 1964), 40 I.L.R. 260 (1970).

42. 297 Fed. 404, 410 (2d Cir. 1924), aff'd 268 U.S. 552 (1925); and see 6 Hackworth, Digest of International Law 342-349 (1943) for further United States authority.
43. See pp. 164 and 166 supra. A different view is taken by Sevette in his opinion cited note 21 supra. He states:

The Corporation's concession may, therefore, be legitimately regarded as being actually under sequestration, Jordan having the right to take in this respect certain measures of conservation, and even to prevent the Corporation from exercising its acquired rights. This situation, however, can be regarded as provisional only, and will have to be finally settled by the peace treaty . . .

The measure taken by the Council of Ministers of Jordan on 31 August 1953, and confirmed by the Council of the Throne on 15 Sept. 1953, involving the unilateral revocation of the concession concerned constitutes a measure which, in my opinion, nevertheless does not challenge the principle of compensation for the concession holder. (at 43)

He has overlooked the right of the state to terminate a contract with an enemy and treated the Concession as if it were property, which it is not.