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Third report on the law of the non-navigational uses of international watercourses, by Mr. Stephen C. McCaffrey, Special Rapporteur

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CHAPTER I

Status of work on the topic

1. A complete survey of the status of the work of the International Law Commission on the law of the non-navigational uses of international watercourses was presented by the Special Rapporteur in both his preliminary report[1] and his second report.[2] It is therefore hoped that it will suffice for the purposes of the present report to recall several key decisions taken by the Commission during its work on the topic.

2. The topic of the non-navigational uses of international watercourses was included in the Commission's general programme of work in 1971 and has been on its active agenda since 1974. At its thirty-second session, in 1980, the Commission provisionally adopted six draft articles, articles 1 to 5 and X, which read as follows:

Article 1. Scope of the present articles

1. The present articles apply to uses of international watercourse systems and of their waters for purposes other than navigation and to measures of conservation related to the uses of those watercourse systems and their waters.

2. The use of the waters of international watercourse systems for navigation is not within the scope of the present articles except in so far as other uses of the waters affect navigation or are affected by navigation.

Article 2. System States

For the purposes of the present articles, a State in whose territory part of the waters of an international watercourse system exists is a system State.

Article 3. System agreements

1. A system agreement is an agreement between two or more system States which applies and adjusts the provisions of the present articles to the characteristics and uses of a particular international watercourse system or part thereof.

2. A system agreement shall define the waters to which it applies. It may be entered into with respect to an entire international watercourse system, or with respect to any part thereof or particular project, programme or use provided that the use by one or more other system States of the waters of an international watercourse system is not, to an appreciable extent, affected adversely.

3. In so far as the uses of an international watercourse system may require, system States shall negotiate in good faith for the purpose of concluding one or more system agreements.

Article 4. Parties to the negotiation and conclusion of system agreements

1. Every system State of an international watercourse system is entitled to participate in the negotiation of and to become a party to any system agreement that applies to that international watercourse system as a whole.

2. A system State whose use of the waters of an international watercourse system may be affected to an appreciable extent by the implementation of a proposed system agreement that applies only to a part of the system or to a particular project, programme or use is entitled to participate in the negotiation of such an agreement, to the extent that its use is thereby affected, pursuant to article 3 of the present articles.

Article 5. Use of waters which constitute a shared natural resource

1. To the extent that the use of waters of an international watercourse system in the territory of one system State affects the use of waters of that system in the territory of another system State, the waters are, for the purposes of the present articles, a shared natural resource.

2. Waters of an international watercourse system which constitute a shared natural resource shall be used by a system State in accordance with the present articles.

Article X. Relationship between the present articles and other treaties in force

Without prejudice to paragraph 3 of article 3, the provisions of the present articles do not affect treaties in force relating to a particular international watercourse system or any part thereof or particular project, programme or use.

3. At the same session, on the recommendation of the Drafting Committee, the Commission also accepted a provisional working hypothesis as to what was meant by the expression "international watercourse system". The hypothesis was contained in a note which read as follows:

A watercourse system is formed of hydrographic components such as rivers, lakes, canals, glaciers and groundwater constituting by virtue of their physical relationship a unitary whole; thus, any use affecting waters in one part of the system may affect waters in another part.

An "international watercourse system" is a watercourse system components of which are situated in two or more States.

To the extent that parts of the waters in one State are not affected by or do not affect uses of waters in another State, they shall not be treated as being included in the international watercourse system. Thus, to the extent that the uses of the waters of the system have an effect on one another, to that extent the system is international, but only to that extent; accordingly, there is not an absolute, but a relative, international character of the watercourse.

4. At its thirty-fifth session, in 1983, and at its thirty-sixth session, in 1984, the Commission had before it a

[1] *Yearbook ... 1985*, vol. II (Part One), p. 87, document A/CN.4/393.

[2] *Yearbook ... 1986*, vol. II (Part One), p. 87, document A/CN.4/399 and Add.1 and 2.

complete set of draft articles on the topic, in the form of an outline for a draft convention, submitted by the previous Special Rapporteur, Mr. Evensen, as a basis for discussion.[3] That draft, as revised in 1984, comprised 41 draft articles arranged in six chapters. The titles of the chapters, which provide a convenient overview of the scope of the draft, were:

Chapter I. Introductory articles

Chapter II. General principles, rights and duties of watercourse States

Chapter III. Co-operation and management in regard to international watercourses

Chapter IV. Environmental protection, pollution, health hazards, natural hazards, safety and national and regional sites

Chapter V. Peaceful settlement of disputes

Chapter VI. Final provisions.

5. At the conclusion of its consideration of the topic in 1984, the Commission decided to refer to the Drafting Committee draft articles 1 to 9 constituting chapters I and II of the revised text of the outline for a draft convention.[4] That decision was taken, however, on the understanding "that the Drafting Committee would also have available the text of the provisional working hypothesis adopted by the Commission at its thirty-second session, in 1980 . . ., the texts of articles 1 to 5 and X provisionally adopted by the Commission at the same session . . ., and the texts of articles 1 to 9 as proposed by the Special Rapporteur in his first [1983] report".[5] The Drafting Committee has not been able to take up these articles due to lack of time. The Commission was able to consider the topic only very briefly and generally in 1985 and 1986.[6]

[3] See the previous Special Rapporteur's first report, *Yearbook . . . 1983*, vol. II (Part One), p. 155, document A/CN.4/367; and his second report, *Yearbook . . . 1984*, vol. II (Part One), p. 101, document A/CN.4/381.

[4] See the Commission's report on its thirty-sixth session, *Yearbook . . . 1984*, vol. II (Part Two), pp. 87-88, para. 280.

[5] *Ibid.*, p. 88, footnote 285.

[6] At its thirty-eighth session, in 1986, the Commission discussed several proposals made by the Special Rapporteur regarding the future course of work on the topic. The discussion was brief, as indicated above, and due to lack of time not all members of the Commission were able to comment on the proposals. While no concrete decisions were taken, the Special Rapporteur drew general conclusions from the debate which are summarized in the Commission's report on its thirty-eighth session, *Yearbook . . . 1986*, vol. II (Part Two), pp. 62-63, paras. 236-242.

CHAPTER II

Procedural rules relating to the utilization of international watercourses: general considerations

6. In his second report, submitted at the thirty-eighth session, in 1986, the Special Rapporteur proposed for the Commission's consideration a set of five draft articles dealing with "the kinds of procedural requirements that are an indispensable adjunct to the general principle of equitable utilization".[7] These requirements relate to cases in which a State contemplates a new use of an international watercourse—including an addition to or alteration of an existing use—where the new use may cause appreciable harm to other States using the watercourse. Due to the limited time available at that session, most members who commented on these articles did so only in very general terms.

7. The centre-piece of the present report is a set of draft articles on procedural requirements, reformulated in the light of comments made at the 1986 session. Before turning to these draft articles, however, the Special Rapporteur considers it important to place them in context by providing a brief sketch of (*a*) how the requirements they embody fit into the larger scheme of international watercourse management; and (*b*) why the requirements are in any event a necessary adjunct to the doctrine of equitable utilization.

[7] Document A/CN.4/399 and Add.1 and 2 (see footnote 2 above), para. 188, and para. 198 (draft articles 10 to 14).

A. Background: an overview of general principles of water-resource management

8. In this section, the Special Rapporteur reviews briefly the relevant features of a modern system of water-resource management, the aim being to provide a backdrop against which to consider the kinds of provisions that should be included in the present set of draft articles. The Commission's task includes both the progressive development and the codification of rules of general international law relating to the non-navigational uses of international watercourses, and it is believed that the process of progressive development of norms in this field must be founded upon a basic understanding of the principles of optimum water-resource management, as well as upon considerations of harmonious inter-State relations.

9. Experts in the field agree that proper and effective planning is essential for optimum utilization and management of water resources.[8] It can also assist

[8] See, for example, (*a*) N. Ely and A. Wolman, "Administration", *The Law of International Drainage Basins*, A. H. Garretson, R. D. Hayton and C. J. Olmstead, eds. (Dobbs Ferry (N.Y.), Oceana Publications, 1967), pp. 146-147; (*b*) A. H. Garretson, "Introduction", *ibid.*, part two, p. 163; (*c*) Mr. Schwebel's third report, *Yearbook . . . 1982*, vol. II (Part One), pp. 175 *et seq.*, document A/CN.4/348 and corrigendum, paras. 452-470, and the authorities cited therein; (*d*) the Proceedings of the United Nations Interregional

(*Continued on next page*)

greatly in resolving conflicting water uses, be they existing or potential. As noted by one authority on water law: "A plan cannot solve unforeseeable problems, but it can provide a procedure and analytical method which when applied to new and unforeseen situations will lead to correct solutions."[9]

10. Water planning begins, of course, at the national level. The Mar del Plata Action Plan, adopted by the United Nations Water Conference held at Mar del Plata (Argentina) in 1977, contains the following general Recommendation 43 concerning national water policy:

> 43. Each country should formulate and keep under review a general statement of policy in relation to the use, management and conservation of water, as a framework for planning and implementing specific programmes and measures for efficient operation of schemes. National development plans and policies should specify the main objectives of water-use policy, which should in turn be translated into guidelines and strategies, subdivided, as far as possible, into programmes for the integrated management of the resource.[10]

The Action Plan goes on to recommend that States should, *inter alia*, "formulate master plans for countries and river basins to provide a long-term perspective for planning".[11]

11. Many States have formulated such policy statements and plans[12] and, in some countries, planning is effected at the regional or constituent state level.[13] An example of planning within a federal system is the flexible process provided for in legislation of the State of Wyoming in the United States of America, which illustrates the modern approach to water-resource management. That approach calls for the competent state agency to "formulate and from time to time review and revise water and related land resources plans for the State of Wyoming and for appropriate regions and river basins."[14] These plans are to implement state policies concerning the state's water and related land resources.[15] The legislation calls for the plans to survey the quantity and quality of existing water resources; to determine current uses of water and activities that affect or are related to water; to identify prospective needs and demand for water, as well as opportunities for development and regulation of water resources; to identify state, regional and local water-resource management goals and objectives for each plan; and to evaluate prospective and anticipated uses and projects in terms of the goals identified.[16] The Wyoming legislation thus envisions a flexible process of hydrological data collection, determination of existing and future needs, identification of objectives, and evaluation of new uses and activities in terms of those objectives.

12. The planning process becomes more complicated, but is no less important, when the water resources in question are located in more than one jurisdiction. It perhaps goes without saying that this is true even when the jurisdictions in question are constituent governmental units of a federal State. Again, the United States experience is instructive. Of the various ways of resolving interstate disputes in the United States over water allocation,[17] the interstate water compact is most relevant for present purposes, since it is closely analogous to a bilateral treaty governing an international watercourse.[18] The Delaware River Basin Compact is an interstate agreement which provides a convenient illustration of how modern water planning may be effected in a multijurisdictional setting.[19]

13. As the Delaware River flows from its head-waters in the State of New York to the sea, it forms the boundary first between New York and Pennsylvania, then between New Jersey and Pennsylvania, and finally between New Jersey and Delaware. It empties into the Atlantic Ocean at Delaware Bay.

> . . . By most standards it is a small river basin,[20] but the demands upon its waters are enormous. Not only must it meet the heavy in-

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(*Footnote 8 continued.*)

Meeting of International River Organizations, held at Dakar (Senegal) from 5 to 14 May 1981 (hereinafter referred to as "Dakar Meeting"), *Experiences in the Development and Management of International River and Lake Basins*, Natural Resources/Water Series No. 10 (United Nations publication, Sales No. E.82.II.A.17), part one, para. 28, conclusion 5; (*e*) the Mar del Plata Action Plan, Recommendation 43, *Report of the United Nations Water Conference, Mar del Plata, 14-25 March 1977* (United Nations publication, Sales No. E.77.II.A.12), part one, chap. I; (*f*) the Proceedings of the Seminar organized by the Committee on Water Problems of the Economic Commission for Europe, held in London from 15 to 22 June 1970, United Nations, *River Basin Management* (Sales No. E.70.II.E.17), part I, sect. E, especially recommendations (*c*), (*e*) and (*f*); (*g*) the classic study by Herbert A. Smith, *The Economic Uses of International Rivers* (London, King, 1931), especially chap. V, "The function of international commissions", noting the value of commissions in performing functions ranging from the setting of broad planning goals to the determination of equitable allocations.

[9] F. J. Trelease, *Recommendations for Water Resources Planning and Administration: A Report to the State of Alaska* (1977), p. 16.

[10] *Report of the United Nations Water Conference* . . . (see footnote 8 (*e*) above); the Action Plan specifies in Recommendation 44 the manner in which policy statements and plans should be formulated and implemented.

[11] Recommendation 44 (*h*).

[12] See, for example, the comparative study of selected national water systems by the Department of Economic and Social Affairs, United Nations, *National Systems of Water Administration* (Sales No. E.74.II.A.10).

[13] In India, for example, "the central Government is constitutionally limited in the exercise of power by the fact that irrigation [and control of surface waters are] in the hands of the states, though it does play a larger role with regard to power generation and navigation" (P. R. Ahuja, "Water administration in India", *ibid.*, p. 114). See the discussion in the same study of national and subnational jurisdiction over water in India, including national, regional, community and local powers (pp. 114-115).

[14] *Wyoming Statutes 1977*, title 41, sect. 41-2-107.

[15] *Ibid.*

[16] *Ibid.*, sect. 41-2-109.

[17] Three methods of resolving water disputes between states in the United States have evolved over the years: lawsuits in the United States Supreme Court between the states involved to establish an equitable apportionment (for example, *Kansas* v. *Colorado* (1902), *United States Reports*, vol. 185, p. 125; and *Kansas* v. *Colorado* (1907), *ibid.*, vol. 206, p. 46); interstate water compacts; and apportionments made at the federal level by Congress in the exercise of its powers over navigable waters and federal property.

[18] For a general discussion of water compacts between states in the United States, see United States of America, National Water Commission, J. C. Muys, "Interstate water compacts: The interstate compact and federal-interstate compact", Report NWC-L-71-011 (Springfield (Va.), National Technical Information Service, 1971) (mimeographed). See also the collection of interstate compacts in T. R. Witmer, ed., *Documents on the Use and Control of the Waters of Interstate and International Streams. Compacts, Treaties and Adjudications*, 2nd ed. (Washington (D.C.), U.S. Government Printing Office, 1968).

[19] See generally R. C. Martin *et al.*, *River Basin Administration and the Delaware* (Syracuse University Press (N.Y.), 1960).

[20] The Delaware drains an area of 12,765 square miles.

dustrial and domestic water supply needs of the industries and communities [including Philadelphia] supporting some 7 million people in the basin, but its waters are used in a much broader service area outside the basin by some 15 million additional users, primarily in New York City, which taps the Delaware sources for a major part of its water supply. The upper and lower valleys of the basin are distinctly different economic units: the upper primarily rural with low population density and little industry; the lower heavily metropolitan, [and] industrialized . . .[21]

The Delaware River basin is thus an interesting case-study, since it involves a rural, less developed and less populated area upstream and an industrialized region downstream. Similar factual settings exist with regard to a number of international watercourses. The fact that Delaware River water is transferred out of the basin, to the Hudson River watershed, adds an interesting dimension.

14. It was in fact the idea of using the head-waters of the Delaware in New York State as a new source of water for New York City that led eventually to the establishment of a commission to plan and regulate the use of water in the Delaware River basin.[22] New York City's consideration of this plan in the early 1920s prompted the other riparian states to resume the negotiation of an interstate compact which would establish a comprehensive plan for the use and apportionment of the waters of the basin. After two proposed compacts had failed to be ratified in Pennsylvania, however, New York City decided unilaterally to proceed with the project.

15. Fearful that the planned diversion would result in environmental damage and injuries to instream uses,[23] New Jersey brought a lawsuit against both the City and the State of New York, invoking the original jurisdiction of the United States Supreme Court, seeking to enjoin New York from proceeding with the project.[24] The Supreme Court allowed New York to proceed with its plans, but protected downstream interests (*a*) by limiting water diversion from the basin to a quantity that would not substantially injure instream recreation uses or oyster fisheries in Delaware Bay;[25] and (*b*) by requiring the construction of a sewage-treatment plant, as well as treatment of industrial waste, at the main source of pollution in New York State, and requiring New York to maintain minimum flows by releasing water from its reservoirs.[26]

16. In the opinion he delivered on behalf of the court, Justice Oliver Wendell Holmes made the following statement of the generally applicable principles, which has since become classic in the field of interstate water law in the United States:

> . . . A river is more than an amenity, it is a treasure. It offers a necessity of life that must be rationed among those who have power over it. New York has the physical power to cut off all the water within its jurisdiction. But clearly the exercise of such a power to the destruction of the interest of lower States could not be tolerated. And on the other hand equally little could New Jersey be permitted to require New York to give up its power altogether in order that the river might come down to it undiminished. Both States have real and substantial interests in the river that must be reconciled as best they may be. The different traditions and practices in different parts of the country may lead to varying results, but the effort always is to secure an equitable apportionment without quibbling over formulas. . . .[27]

17. Subsequent efforts to arrive at a comprehensive plan for the use and development of the river[28] culminated in 1961 in the conclusion of the Delaware River Basin Compact between the four basin states and the federal Government.[29] Article 1, section 1.3, of the Compact contains the following findings and statements of purpose:

> (*a*) The water resources of the basin are affected with a local, state, regional and national interest and their planning, conservation, utilization, development, management and control, under appropriate arrangements for intergovernmental cooperation, are public purposes of the respective signatory parties.
>
> (*b*) The water resources of the basin are subject to the sovereign right and responsibility of the signatory parties, and it is the purpose of this compact to provide for a joint exercise of such powers of sovereignty in the common interests of the people of the region.
>
> (*c*) The water resources of the basin are functionally inter-related, and the uses of these resources are interdependent. A single administrative agency is therefore essential for effective and economical direction, supervision and coordination of efforts and programs of federal, state and local governments and of private enterprise.
>
> (*d*) . . . ever increasing economies and efficiencies in the use and reuse of water resources can be brought about by comprehensive planning, programming and management.
>
> (*e*) In general, the purposes of this compact are to promote interstate comity; to remove causes of present and future controversy; to make secure and protect present developments within the states; to encourage and provide for the planning, conservation, utilization,

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[21] Muys, *op. cit.* (footnote 18 above), p. 118.

[22] The genesis of the Delaware River Basin Compact is discussed in Muys, pp. 118 *et seq.*

[23] Examples of instream uses are estuarine oyster fisheries, anadromous fish runs, navigation and recreation.

[24] *New Jersey* v. *New York* (1931), *United States Reports*, vol. 283, p. 336. Pennsylvania became a party to the suit by intervention (*ibid.*, vol. 280, p. 528), but was denied the relief it sought (*ibid.*, vol. 283, p. 347).

[25] *Ibid.*, vol. 283, pp. 345-347. With regard to the proposed inter-basin transfer of water, the court stated: "The removal of water to a different watershed obviously must be allowed at times unless states are to be deprived of the most beneficial use on formal grounds. In fact it has been allowed repeatedly and has been practised by the states concerned." (*Ibid.*, p. 343, citing *Missouri* v. *Illinois* (1906), *ibid.*, vol. 200, p. 526; *Wyoming* v. *Colorado* (1922), *ibid.*, vol. 259, p. 466; and *Connecticut* v. *Massachusetts* (1931), *ibid.*, vol. 282, p. 671.)

[26] *Ibid.*, vol. 283, pp. 346-347.

[27] *Ibid.*, pp. 342-343.

[28] These efforts are described in Muys, *op. cit.* (footnote 18 above), pp. 120 *et seq.* Among the principal events leading to the conclusion of the Delaware River Basin Compact were: (*a*) the formation of the Interstate Commission on the Delaware River Basin (INCODEL) by the enactment of reciprocal legislation by the four basin states between 1936 and 1939; INCODEL focused its efforts principally on pollution control, but did submit to the basin states a proposed compact providing for a comprehensive basin plan and an interstate commission; this compact was rejected by the states; (*b*) the filing by New York City in 1952 of a petition with the United States Supreme Court seeking an increase in the diversions permitted under the court's 1931 decree; this action was resolved when the court approved a compromise between the states in 1954 (*New Jersey* v. *New York* (1954), *United States Reports*, vol. 347, p. 995); (*c*) the devastation wrought in the Delaware Valley region by hurricanes "Connie" and "Diane" in July 1955, which spurred planning efforts; (*d*) the formation of the Delaware River Basin Advisory Committee (DRBAC), composed of the governors of the four basin states and the mayors of Philadelphia and New York City; DRBAC ultimately drafted the agreement that became the Delaware River Basin Compact.

[29] State ratifications: *Delaware Code Annotated*, sect. 1001; *New Jersey Statutes Annotated*, title 32, sects. 32:11D-1 *et seq.*; *McKinney's Consolidated Laws of New York Annotated*, book 10, sect. 21-0701; *Purdon's Pennsylvania Statutes Annotated*, title 32, sect. 815.101. Federal Government enactment: Act of 27 September 1961 (*United States Statutes at Large, 1961*, vol. 75, p. 688, Public Law 87-328); text reproduced in Witmer, *op. cit.* (footnote 18 above), pp. 95 *et seq.*

development, management and control of the water resources of the basin; to provide for cooperative planning and action by the signatory parties with respect to such water resources; and to apply the principle of equal and uniform treatment to all water users who are similarly situated and to all users of related facilities, without regard to established political boundaries.

18. Article 2 of the Compact establishes the Delaware River Basin Commission (DRBC), to be composed of the governors of the signatory states and one commissioner to be appointed by the President of the United States to serve during the President's term of office.[30] The commission's general purposes and duties are stated in article 3, section 3.1, as follows:

> The commission shall develop and effectuate plans, policies and projects relating to the water resources of the basin. It shall adopt and promote uniform and coordinated policies for water conservation, control, use and management in the basin. It shall encourage the planning, development and financing of water resources projects according to such plans and policies.

The commission's general planning duties are set forth in section 3.2, which directs the commission to formulate and adopt:

> (*a*) A comprehensive plan, after consultation with water users and interested public bodies, for the immediate and long-range development and uses of the water resources of the basin; [and]
>
> (*b*) [An annual] water resources program, based upon the comprehensive plan, which shall include a systematic presentation of the quantity and quality of water resources needs of the area to be served for such reasonably foreseeable period as the commission may determine, balanced by existing and proposed projects required to satisfy such needs, including all public and private projects affecting the basin, together with a separate statement of the projects proposed to be undertaken by the commission during such period; . . .[31]

19. To enable it to implement the comprehensive plan and water resources programme, article 3 endows DRBC with broad powers[32] including powers of water allocation, use regulation, project planning and construction, research, data collection and publication, rate fixing and project approval. Specifically, section 3.3 empowers the commission "in accordance with the doctrine of equitable apportionment, to allocate the waters of the basin to and among the [signatory states] . . . and to impose conditions, obligations and release requirements related thereto, subject to [specified] limitations".[33] Furthermore, section 3.8 provides that any new project "having a substantial effect on the water resources of the basin" must be approved by the commission, which is directed to grant approval "whenever it finds and determines that such project would not substantially impair or conflict with the comprehensive plan".[34]

20. Articles 4 to 10 provide for specific powers of the commission relating to water supply, pollution control, flood protection, watershed management (including soil conservation, promotion of sound forestry practices, and fish and wildlife management), recreation, hydroelectric power and regulation of withdrawals and diversions.

21. The Delaware River Basin Compact thus provides a useful example of a modern planning approach to the management of an interjurisdictional watercourse, including an administrative body for the implementation of that approach. A similar framework for multipurpose planning and integrated development of a watercourse system, this time at the international level, was established in 1972 for the Senegal River.[35] That river's principal tributaries rise in Guinea and Mali, and meet near Bakel in Senegal. From this point the river forms the boundary between Senegal and Mauritania until it empties into the sea at Saint-Louis (Senegal). The flow of the river varies dramatically with the seasons,[36] making co-operative efforts at management all the more important for optimum utilization of the river's benefits by all States concerned.

22. On 11 March 1972, the heads of State of Mali, Mauritania and Senegal signed the Convention relating to the status of the Senegal River (hereinafter referred to as the "Statute"), and the Convention establishing the Organization for the Development of the Senegal River (hereinafter referred to as the "OMVS Convention").[37]

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[30] The governors are normally represented by alternates, as permitted by section 2.3. The commission meets once a month, and more often if circumstances require. The day-to-day work of the commission is performed by its staff. See Muys, *op. cit.* (footnote 18 above), p. 187.

[31] Article 13 elaborates on the content of the plan and programme envisioned in article 3. Section 13.2 explains that a water resources programme is to be adopted annually by the commission, taking into account needs "during the ensuing six years or such other reasonably foreseeable period as the commission may determine".

[32] See also article 10, which allows the commission to "regulate and control withdrawals and diversions from surface waters and ground waters of the basin" (sect. 10.1); and article 14, which authorizes the commission to "make and enforce reasonables rules and regulations for the effectuation, application and enforcement of [the] compact" (sect. 14.2 (*a*)).

[33] This flexible provision for the administrative allocation of basin waters in accordance with the principle of equitable apportionment is a unique feature of the Compact. See Muys, *op. cit.* (footnote 18 above), p. 149. DRBC's powers of allocation are, however, limited by the decree of the Supreme Court in *New Jersey* v. *New York* (1954) (see footnote 28 (*b*) above). See sections 3.3 to 3.5 of the Compact.

[34] That section goes on to provide for review of the commission's determinations "in any court of competent jurisdiction". "The DRBC exercised its sect. 3.8 project review power for the first time in August 1962 when it approved Philadelphia's application to enlarge its Northeast Sewage Treatment Works. It has subsequently [as of 1971] reviewed over 1,400 proposed projects for their compatibility with the comprehensive plan." (Muys, *op. cit.* (footnote 18 above), p. 161.)

[35] Convention relating to the status of the Senegal River and Convention establishing the Organization for the Development of the Senegal River (OMVS), both signed at Nouakchott on 11 March 1972 (see Annex I, "Africa"). The Conference of Heads of State and Government of OMVS subsequently modified these two conventions: the first by resolution 6/75/C.C.E.G/MN.N of 16 December 1975, and the second by resolutions 6/C.C.E.G/ML.B of 21 December 1978 and 8/C.C.E.G/S.SL of 11 December 1979, as well as by the amending Convention of 17 November 1975. See generally the excellent discussion of these treaties and practice under them in T. Parnall and A. E. Utton, "The Senegal Valley Authority: A unique experiment in international river basin planning", *Indiana Law Journal* (Bloomington), vol. 51 (1975-1976), p. 235. See also Quoc-Lan Nguyen, "Powers of the Organization for the Development of the Senegal River in development of the river basin", in Dakar Meeting Proceedings (see footnote 8 (*d*) above), p. 142.

[36] "At Bakel [Senegal], the flow varies as much as from 3,500 cubic meters per second in September to ten cubic meters per second in May." (Parnall and Utton, *loc. cit.* (footnote 35 above), p. 237.)

[37] The two agreements appear to have entered into force later that year. Parnall and Utton state that instruments of ratification were deposited by Senegal and Mauritania on 13 October 1972, and by Mali on 25 November 1972 (*loc. cit.* (footnote 35 above), p. 238). For the history of the two agreements, including a discussion of antecedent treaties, *ibid.*, pp. 238-239.

The two agreements are open for signature by the other basin State,[38] Guinea.[39] The Statute begins by declaring the Senegal an "international river" and affirming the will of the contracting parties to develop close co-operation in order to allow rational exploitation of the resources of the river. It goes on to set forth general principles governing navigational and non-navigational uses. Article 11 of the Statute provides for the creation of an organization to oversee the implementation of the Statute's provisions. This organization is the subject of the OMVS Convention.

23. Article 1 of the latter Convention establishes an institution to be known as the Organization for the Development of the Senegal River (OMVS) and charges the Organization with: (*a*) the general implementation of the Statute; (*b*) the promotion and co-ordination of studies and works for the development of the Senegal River basin on the territories of the States members of the Organization; (*c*) any technical or economic mission that the member States collectively wish to confer upon it.[40] The Organization acts through four bodies: the Conference of Heads of State and Government, which is the supreme organ of OMVS; the Council of Ministers; the general secretariat; and the Standing Commission on the Waters of the Senegal River.[41] Inasmuch as the Conference ordinarily meets only once a year, the work of OMVS is carried out principally by the Council and the secretariat. Decisions of the Conference and of the Council are binding on all member States (arts. 5 and 8).

24. The Council, which is the decision-making organ of OMVS, is broadly responsible for elaborating general policy concerning the management of the Senegal River, the development of its resources and the modalities of co-operation between the States concerned. It is charged with the establishment of priorities for development projects and, importantly, must give prior approval to any development programmes of concern to one or more member States (art. 8). The Council is also endowed with the power to determine the contributions of member States to the Organization's budget, to arrange project financing and to apportion the responsibility therefor among the member States (*ibid.*). All member States are required to attend meetings of the Council, which are held twice a year or when called by a member State. Council decisions are taken by unanimous vote (art. 10).

25. The executive organ of OMVS is the secretariat. It is directed by a High Commissioner, who is appointed for a renewable four-year term by the Conference and represents the Organization between Council meetings. The High Commissioner represents the Organization as well as member States in their relations with international assistance institutions and bilateral co-operation agencies with regard to the Senegal River. Within the scope of the powers delegated to him by the Council, he is empowered to negotiate on behalf of all member States of OMVS. He is also responsible for gathering data concerning the Senegal River basin on the territory of the member States; submitting to the Council a joint programme of works for the co-ordinated development and rational exploitation of the basin's resources; the execution of studies and works relating to regional infrastructures (art. 13); and the examination of proposals for hydro-agricultural development formulated by member States and submission of them, together with an evaluation by the Standing Commission, to the Council (art. 14). The High Commissioner may also be charged by one or more member States with the preparation of studies and the supervision of works relating to the development of the river (*ibid.*).

26. The Standing Commission on the Waters of the Senegal River, set up by the amending Convention of 1975, is charged with establishing the principles and procedures for the apportionment of the waters of the river among the States concerned as well as among the sectors utilizing those waters, namely industry, agriculture and transport. The Commission is composed of representatives of member States and prepares advisory opinions for submission to the Council of Ministers (art. 20).

27. The development of the Senegal River basin by OMVS has been characterized as proceeding in four stages: data collection; planning; implementation; and review and synthesis.[42] Among many other significant accomplishments, OMVS has collected and synthesized data, defined needs and benefits, set goals, arranged project financing and engaged in significant research and planning activities, as well as project development.[43] Its broad responsibilities and supranational authority make OMVS unique among institutional mechanisms for the integrated development and administration of international water resources.[44]

28. The fundamental principles and institutional framework established by the Statute-OMVS Convention régime thus represent an advanced, highly developed planning approach to the management of international water resources. This approach is a concrete illustration of the kind of international watercourse management scheme called for in the report of the 1981 Dakar Interregional Meeting of International River Organizations:

> . . . in view of the hydrologic unity of the drainage basins, it would be desirable that integrated development programmes be drawn and possibly executed at the basin level by recognized agencies. Where this approach was not viable, co-ordination of the activities of the various agencies concerned should be sought.[45]

[38] The term "basin" is used here, for convenience, in its hydrological sense without any legal connotations.

[39] See art. 15 of the Statute and art. 22 of the OMVS Convention.

[40] With regard to the powers of OMVS, see generally Quoc-Lan Nguyen, *loc. cit.* (footnote 35 above).

[41] Quoc-Lan Nguyen also mentions a fifth body, the Inter-State Committee for Research and Agricultural Development, set up in 1976 by a resolution of the Council of Ministers. This advisory committee is charged with the harmonization of the agricultural research and development programmes of the member States (*loc. cit.*, p. 146).

[42] See Parnall and Utton, *loc. cit.* (footnote 35 above), p. 249.

[43] *Ibid.*, pp. 246 *et seq.* Among the projects completed under OMVS auspices, Parnall and Utton cite a dam designed to halt salt-water intrusion in the delta region.

[44] See the survey of institutional arrangements, *ibid.*, pp. 254 *et seq.*

[45] Dakar Meeting Proceedings (see footnote 8 (*d*) above), part one, para. 28, conclusion 5. See also Smith's conclusion on this point in his seminal work on the law of international watercourses:

> "The first principle is that every river system is naturally an indivisible physical unit, and that as such it should be so developed as

(*Continued on next page.*)

B. The relationship between procedural rules and the doctrine of equitable utilization

29. The régime of the Senegal River is, however, unique among administrative arrangements that have been established to provide for the management of international water resources or to facilitate co-operation among the States concerned in the use and development thereof.[46] More importantly, while most major international river systems have been placed under some form of co-operative institutional administration, there are many international watercourses which have not. In sum, not only do many existing institutional arrangements or other conventional régimes not provide for the kind of planning approach represented by the Wyoming legislation, the Delaware River Basin Compact and the OMVS Convention, but numerous international watercourse systems are not governed by any such régime at all.

30. This state of affairs often means that the only norms regulating the behaviour of the States concerned in respect of an international watercourse system are the rules of general international law relating to international watercourses. These norms focus on the conduct of individual States rather than the optimum management and development of the watercourse system as a whole. In defining the minimum obligations of States, normative prescriptions provide the backbone of any system of integrated river-basin management. For this reason, they are an essential ingredient of such a régime. Operating alone, however, they can hardly be expected to produce a situation of optimum management and integrated development of an international watercourse system, i.e. one which yields the maximum possible benefit for all States concerned.

31. On the other hand, the potential of the fundamental principles of modern international watercourse law for achieving an equitable balance of the uses, needs and interests of the States concerned should not be underestimated. The corner-stone of this normative régime is the principle of equitable utilization, according to which States are entitled to a reasonable and equitable share of the uses and benefits of the waters of an international watercourse.[47]

32. The primary virtue of this principle is its flexibility, which makes it appropriate for application to the wide variety of international watercourse systems and human needs they serve.[48] However, this very attribute renders the principle, standing alone, difficult of unilateral application by the individual States concerned. In other words, the doctrine obviously sets no *a priori* standards that are universally and mechanically applicable concerning, for example, the amount of water a State may divert, the quality of water to which it is entitled, or the uses it may make of an international watercourse. Instead, it relies on a balancing of factors relevant to each individual case,[49] a task to which a third-party dispute-resolution mechanism is best suited.

33. It is thus possible that, in the absence of procedures permitting a State to determine its equitable share in advance and in consultation with other concerned States, that State's unilateral determination of its equitable share might be challenged by the other States. The doctrine of equitable utilization would then operate only as a *post hoc* check on the State's use of the international watercourse in question. In other words, an

(*Footnote 45 continued*)

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. It is the positive duty of every government concerned to co-operate to the extent of its power in promoting this development, though it cannot be called upon to imperil any vital interest or to sacrifice without full compensation and provision for security any other particular interest of its own, whether political, strategic, or economic, which the law of nations recognizes as legitimate." (*Op. cit.* (footnote 8 (*g*) above), pp. 150-151.)

[46] For illustrative lists of such arrangements and discussions thereof, see the supplementary report by the Secretary-General on "Legal problems relating to the non-navigational uses of international watercourses", *Yearbook . . . 1974*, vol. II (Part Two), pp. 351 *et seq.*, document A/CN.4/274, paras. 382-398; the Dakar Meeting Proceedings (see footnote 8 (*d*) above), part three; Ely and Wolman, *loc. cit.* (footnote 8 (*a*) above), pp. 125-133; United Nations, *Management of International Water Resources: Institutional and Legal Aspects*, Natural Resources/Water Series No. 1 (Sales No. E.75.II.A.2), annex IV; and Parnall and Utton, *loc. cit.* (footnote 35 above), pp. 254 *et seq.*

Notable among these administrative mechanisms are: in *Africa*: the Lake Chad Basin Commission, the Niger Basin Authority (formerly River Niger Commission), the Permanent Joint Technical Commission for Nile Waters (Egypt and Sudan) and the Organization for the Management and Development of the Kagera River Basin; in *America*: the Intergovernmental Co-ordinating Committee of the River Plate Basin, the International Joint Commission (Canada and United States of America) and the International Boundary and Water Commission (United States of America and Mexico); in *Asia*: the Committee for Co-ordination of Investigations of the Lower Mekong Basin, the Permanent Indus Commission (India and Pakistan), the Joint Rivers Commission (India and Bangladesh) and the Helmand River Delta Commission (Afghanistan and Iran); in *Europe*: the Danube Commission, the International Commission for the Protection of the Moselle against Pollution, the International Commission for the Protection of the Rhine against Pollution and the Joint Finnish-Soviet Commission on the Utilization of Frontier Watercourses.

[47] Perhaps the best-known formulation of the doctrine of equitable utilization is that found in article IV of the Helsinki Rules on the Uses of the Waters of International Rivers:

"*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."

These Rules (hereinafter referred to as "Helsinki Rules") were adopted by the International Law Association at its Fifty-second Conference, held at Helsinki in 1966: see ILA, *Report of the Fifty-second Conference, Helsinki, 1966* (London, 1967), pp. 484 *et seq.*; text reproduced in part in *Yearbook . . . 1974*, vol. II (Part Two), pp. 357 *et seq.*, document A/CN.4/274, para. 405. For discussions of the doctrine and the authority supporting it, see Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), paras. 41-84; and the Special Rapporteur's second report, document A/CN.4/399 and Add.1 and 2 (see footnote 2 above), paras. 75-178.

[48] The uniqueness of each international watercourse and of its physical and human context is generally recognized. As Parnall and Utton note, "each basin has its own economic, geographic, ecological, cultural and political variables; no comprehensive system of rigid rules can anticipate adequately the variables from basin to basin" (*loc. cit.* (footnote 35 above), p. 253).

[49] See, for example, the *Lake Lanoux* case (footnote 63 below), in which the arbitral tribunal considered a variety of factors in deciding that France could proceed with its project; article V of the Helsinki Rules (see footnote 47 above), which contains an illustrative list of 11 factors to be considered as relevant; and draft article 8 as submitted by the previous Special Rapporteur in his second report (see footnote 3 above), containing 11 factors to be considered as relevant.

equitable allocation would be achieved in many cases only by means of the process of claim and counter-claim—and perhaps ultimate resort to third-party dispute resolution—that could result from a State's use of the watercourse.

34. As has already been seen, however, the modern approach to water-resource management requires basin-wide planning *ex ante* rather than accommodation of conflicting uses *ex post*. While norms of general international law cannot achieve the same state of affairs that would be produced by a basin-wide system of water-resource planning and management, however, they can go a long way towards that goal. This is because the doctrine of equitable utilization does not exist in isolation; it is part of a normative structure that includes procedural requirements necessary to its implementation. The substantive and procedural principles thus form an integrated whole.

35. To summarize, the very generality and elasticity of the equitable utilization principle requires that it be complemented by a set of procedural rules for its implementation. Without such rules, a State would often discover the limits of its rights only by depriving another State of its equitable share—probably without intending to do so. It cannot lightly be presumed that State practice has created such a legal state of affairs, since this would mean that the norm of equitable utilization, in effect, creates disputes rather than avoiding them. There would be no legal certainty in respect of States' use of international watercourses. The result of an absence of procedures for the provision of data and information and for notification and consultation has been noted in one study as follows:

> . . . Too often disputes over rights in international rivers are characterized by misunderstanding, if not simple ignorance, of important facts about the drainage basin and the needs of other basin countries.[50]

36. As will be shown below, however, the practice of States does attest to the existence of a procedural complement to the substantive norm of equitable utilization. Without the sharing of data and information and without prior notification of planned projects or new uses, the doctrine of equitable utilization would be of little use to States in planning their watercourse activities; it would be of use principally for third-party dispute settlement. Consequently:

> It is reasonable . . . that procedural requirements should be regarded as essential to the equitable sharing of water resources. They have particular importance because of the breadth and flexibility of the formulae for equitable use and appropriation. In the absence of hard and precise rules for allocation, there is a relatively greater need for specifying requirements for advance notice, consultation, and decision procedures. Such requirements are, in fact, commonly found in agreements by neighbouring States concerning common lakes and rivers.[51]

37. Furthermore, States' observance over time of procedures for the implementation of the equitable utilization doctrine will open lines of communication which may ultimately lead to an integrated system of international watercourse planning and management. The co-operation between the States concerned

> at first, may be no more than the exchange of data independently collected; next, standardization of data; then joint collection of data; then exchange of forecasts of water utilization; then exchange of plans; then common planning of projects; then agreements in one or more of the fields of equitable apportionment of consumptive use, stream pollution, machinery for settlement of disputes, etc.; then, hopefully, agreements for development of resources in one nation at the joint cost and for the joint benefit of several, for coordinated administration of facilities, and so on.[52]

38. The following chapter of the present report proposes for the Commission's consideration a draft article on the general obligation to co-operate and a set of draft articles concerning procedural rules relating to the utilization of international watercourses.

[50] Ely and Wolman, *loc. cit.* (footnote 8 (*a*) above), p. 141.

[51] O. Schachter, *Sharing the World's Resources* (New York, Columbia University Press, 1977), p. 69.

[52] Ely and Wolman, *loc. cit.*, pp. 146-147.

Chapter III

Draft articles concerning general principles of co-operation and notification

39. In his second report, the Special Rapporteur offered a broad overview of the landscape of procedural rules and discussed the manner in which these rules best fit into the draft as a whole.[53] He noted that procedural requirements relate to existing uses as well as to new uses, and suggested that at least one category of situations concerning existing uses could be covered by article 8, referred to the Drafting Committee in 1984.[54]

40. The national and international arrangements reviewed in the previous chapter demonstrate that a régime providing optimum benefits for all jurisdictions making use of a watercourse entails good-faith co-operation and an ongoing process of communication between the States concerned. It has also been seen that the basic norm governing the use of international watercourses, that of equitable utilization, is predicated upon good-faith co-operation and communication among the States concerned. Certainly, the procedural requirements under general international law are not so refined as those under régimes such as that established by the Senegal River conventions. Indeed they cannot be, because of the diversity of international watercourses, as well as economic, cultural, political and other human variables. Yet, as discussed above (para.

[53] Document A/CN.4/399 and Add.1 and 2 (see footnote 2 above), paras. 189-197.

[54] *Ibid.*, para. 194. Due to lack of time, the Drafting Committee has not yet been able to consider draft article 8 as submitted by the previous Special Rapporteur.

33), the rule of equitable utilization would mean little in the absence of procedures at least permitting States to determine in advance whether their actions would violate it.

41. State practice therefore reveals a recognition of the need for a spectrum of procedures relating to the utilization of international watercourses, ranging from the provision of data and information (concerning both hydrological factors and present and projected water needs) to notification of contemplated action with regard to an international watercourse that may adversely affect another State. It is also widely recognized that good-faith co-operation between the States concerned is essential to the smooth and effective functioning of these procedures and, more generally, to basin-wide development and management of international watercourses.[55] The following sections of this chapter survey the authority for, and present possible formulations of, the most fundamental procedural rules relating to the non-navigational uses of international watercourses. The final chapter of the present report offers an introductory discussion of additional procedures that water-resource specialists recognize as being highly important to the harmonious and efficient development of international watercourse systems.

A. The general duty to co-operate

42. Good-faith co-operation between States with regard to their utilization of an international watercourse is an essential basis for the smooth functioning of other procedural rules and, ultimately, for the attainment and maintenance of an equitable allocation of the uses and benefits of the watercourse. The following paragraphs survey the broad support for this general obligation in treaty practice, decisional law, resolutions of international organizations and other international legal instruments.

1. International agreements

43. Numerous international agreements relating to the environment in general and watercourses in particular require co-operation between the States parties.[56] For example, in article 4 of the Act regarding navigation and economic co-operation between the States of the Niger Basin (Act of Niamey),[57] the contracting States undertake to establish close co-operation with regard to the study and execution of any project likely to have an appreciable effect on certain features of the régime of the river, its tributaries and sub-tributaries, their conditions of navigability, agricultural and industrial exploitation, the sanitary conditions of their waters and the biological characteristics of their fauna and flora. Article 5 of the same agreement provides for the establishment of an intergovernmental organization in order to further the co-operation between the riparian States.[58]

44. The 1964 Agreement between Poland and the USSR concerning the use of water resources in frontier waters[59] provides, in article 3, that the purpose of the Agreement is to ensure co-operation between the parties in economic, scientific and technical activities relating to the use of water resources in frontier waters. In article 5, the parties undertake to co-ordinate all activities capable of causing changes in the existing situation with regard to the use of water resources in frontier waters; and article 6 requires that the parties co-ordinate plans for the development of frontier water resources. Articles 7 and 8 provide for co-operation with regard, *inter alia*, to water projects and the regular exchange of data and information.

45. In the 1962 Convention concerning the protection of the waters of Lake Geneva against pollution,[60] France and Switzerland agree to co-operate closely in order to protect from pollution the waters of the lake as well as those leading from it, including the surface water and ground water of their tributaries in so far as these contribute to the pollution of the subject waters (art. 1). The Convention also establishes a joint commission which is empowered to conduct research, recommend to the parties measures concerning existing or future pollution, and prepare drafts of rules concerning health standards for the waters of Lake Geneva (arts. 2-4).

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[55] See, for example, Smith's "first principle" (footnote 45 above).

[56] A number of these agreements are listed in Annex I. For example: *America*: Treaty of 17 January 1961 between Canada and the United States of America relating to co-operative development of the water resources of the Columbia River basin, entered into force on 16 September 1964; Act of Santiago of 26 June 1971 concerning hydrologic basins (Argentina and Chile); Agreement of 22 November 1978 between the United States of America and Canada on Great Lakes water quality, entered into force on the same date; *Europe*: Agreement of 17 July 1964 between Poland and the USSR concerning the use of water resources in frontier waters, entered into force on 16 February 1965; Agreement of 23 October 1968 between Bulgaria and Turkey concerning co-operation in the use of the waters of rivers flowing through the territory of both countries, entered into force on 26 October 1970.

See also the numerous international agreements providing for the establishment of commissions or other forms of administrative machinery to promote and facilitate co-operation between the States parties (a number of these bodies are referred to in footnote 46 above). For example: Agreement of 29 April 1963 on the International Commission for the Protection of the Rhine against Pollution (Switzerland, France, Federal Republic of Germany, Luxembourg and the Netherlands), entered into force on 1 May 1965 (United Nations, *Treaty Series*, vol. 994, p. 3); Agreement of 27 February 1968 between Czechoslovakia and Hungary concerning the establishment of a river administration in the Rajka-Gönyu sector of the Danube, entered into force on the same date (*ibid.*, vol. 640, p. 49); Agreement of 12 July 1971 between Bulgaria and Greece concerning the establishment of a Greek-Bulgarian commission for co-operation between the two countries in questions relating to electric power and the utilization of the rivers crossing their territories, entered into force on the same date (see *Yearbook . . . 1974*, vol. II (Part Two), p. 319, document A/CN.4/274, para. 306).

[57] Adopted on 26 October 1963 at the Conference of the Riparian States of the River Niger, its tributaries and sub-tributaries (Niamey, 24-26 October 1963) and entered into force on 1 February 1966 (see Annex I, "Africa"). The parties were Cameroon, Ivory Coast, Dahomey, Guinea, Upper Volta, Mali, Niger, Nigeria and Chad. Summarized in *Yearbook . . . 1974*, vol. II (Part Two), p. 289, document A/CN.4/274, paras. 40-44.

[58] Article 5 goes on to provide that the organization will be entrusted with the task of encouraging, promoting and co-ordinating studies and programmes concerning the exploitation of the resources of the Niger River basin.

[59] Entered into force on 16 February 1965 (see Annex I, "Europe"); summarized in *Yearbook . . . 1974*, vol. II (Part Two), p. 316, document A/CN.4/274, paras. 273-278.

[60] Entered into force on 1 November 1963 (see Annex I, "Europe"); summarized *ibidem*, p. 308, paras. 202-205.

46. The 1983 Agreement between the United States of America and Mexico on co-operation for the protection and improvement of the environment in the border area[61] is an example of a framework agreement that encompasses boundary water resources. Article 1 of the Agreement provides that the parties

> agree to cooperate in the field of environmental protection in the border area on the basis of equality, reciprocity and mutual benefit. The objectives of the present Agreement are to establish the basis for cooperation between the Parties for the protection, improvement and conservation of the environment and the problems which affect it . . .

The parties agree in article 2 to "cooperate in the solution of the environmental problems of mutual concern in the border area, in accordance with the provisions of this Agreement". Annex I to the Agreement relates to the pollution of a transborder stream flowing between Tijuana in Mexico and San Diego in the United States. Article 1 of the annex provides in part:

> . . . the United States of America and the United Mexican States agree to cooperate in accordance with their prevailing national legislation in order to anticipate and consider the effects and consequences that the works planned may have on environmental conditions in the Tijuana-San Diego zone and, if necessary, agree on a determination of the measures necessary to preserve environmental conditions and ecological processes.

47. Finally, it is worth recalling that the 1982 United Nations Convention on the Law of the Sea[62] contains a broad obligation of co-operation in respect of the marine environment. In particular, article 197 provides:

> *Article 197. Co-operation on a global or regional basis*
>
> States shall co-operate on a global basis and, as appropriate, on a regional basis, directly or through competent international organizations, in formulating and elaborating international rules, standards and recommended practices and procedures consistent with this Convention, for the protection and preservation of the marine environment, taking into account characteristic regional features.

Subsequent articles provide for, *inter alia*, notification concerning environmental damage, contingency plans against pollution, exchange of information and data, and co-operation in establishing scientific criteria for standard setting (arts. 198-201).

2. Decisions of international courts and tribunals

48. The award of the arbitral tribunal in the *Lake Lanoux* case[63] is replete with statements broadly confirming the obligation to co-operate in respect of international watercourses. As this case was extensively discussed in the Special Rapporteur's second report,[64] only certain passages from the award will be noted here:

> . . . international practice . . . [limits] itself to requiring States to seek the terms of an agreement by preliminary negotiations without making the exercise of their competence conditional on the conclusion of this agreement. . . . but the reality of the obligations thus assumed cannot be questioned, and they may be enforced, for example, in the case of an unjustified breaking off of conversations, unusual delays, disregard of established procedures, systematic refusal to give consideration to proposals or adverse interests, and more generally in the case of infringement of the rules of good faith.[65]
>
> . . .
>
> . . . States today are well aware of the importance of the conflicting interests involved in the industrial use of international rivers and of the necessity of reconciling some of these interests with others through mutual concessions. The only way to achieve these adjustments of interest is the conclusion of agreements on a more and more comprehensive basis. International practice reflects the conviction that States should seek to conclude such agreements; there would thus be an obligation for States to agree in good faith to all negotiations and contacts which should, through a wide confrontation of interests and reciprocal goodwill, place them in the best circumstances to conclude agreements. . . .[66]

49. In cases concerning maritime delimitation, a field involving analogous considerations of natural-resource allocation, the ICJ has stressed that States have an obligation to resolve their differences through co-operation, through good-faith negotiations aimed at reaching an equitable result. In the *North Sea Continental Shelf* cases,[67] the Court had the following to say with regard to the "principles and rules of law" that were applicable to the continental shelf determination in question:

> . . . those principles [are] that delimitation must be the object of agreement between the States concerned, and that such agreement must be arrived at in accordance with equitable principles. On a foundation of very general precepts of justice and good faith, actual rules of law are here involved which govern the delimitation of adjacent continental shelves . . .[68]

The Court went on to say that:

> the parties are under an obligation to enter into negotiations with a view to arriving at an agreement, and not merely to go through a formal process of negotiation as a sort of prior condition for the automatic application of a certain method of delimitation in the absence of agreement; . . .[69]

and that:

> . . . the obligation to negotiate . . . merely constitutes a special application of a principle which underlies all international relations, and which is moreover recognized in Article 33 of the Charter of the United Nations as one of the methods for the peaceful settlement of international disputes. . . .[70]

50. Again, in the *Fisheries Jurisdiction* (*United Kingdom* v. *Iceland*) case,[71] involving a subject-matter perhaps even more closely analogous to international watercourse allocation, the Court spoke of the "obligation to take account of the rights of other States and the

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[61] Signed at La Paz (Mexico) on 14 August 1983 and entered into force on 16 February 1984; see *International Legal Materials* (Washington, D.C.), vol. XXII (1983), p. 1025.

[62] *Official Records of the Third United Nations Conference on the Law of the Sea*, vol. XVII (United Nations publication, Sales No. E.84.V.3), p. 151, document A/CONF.62/122.

[63] Original French text in United Nations, *Reports of International Arbitral Awards*, vol. XII (Sales No. 63.V.3), pp. 281 *et seq.*; partial translations in *Yearbook . . . 1974*, vol. II (Part Two), pp. 194 *et seq.*, document A/5409, paras. 1055-1068; and *International Law Reports, 1957* (London), vol. 24 (1961), pp. 101 *et seq.*

[64] Document A/CN.4/399 and Add.1 and 2 (see footnote 2 above), paras. 111-124.

[65] The arbitral tribunal cited in this connection the *Tacna-Arica Question* (United Nations, *Reports of International Arbitral Awards*, vol. II (Sales No. 1949.V.1), pp. 921 *et seq.*), and *Railway Traffic between Lithuania and Poland* (*P.C.I.J., Series A/B, No. 42*, p. 108). The quoted passage is from paragraph 11 (third subparagraph) of the award (*Yearbook . . . 1974*, vol. II (Part Two), p. 197, document A/5409, para. 1065).

[66] Para. 13 (first subparagraph) of the award (*Yearbook . . .*, para. 1066).

[67] Federal Republic of Germany v. Denmark, and Federal Republic of Germany v. Netherlands, Judgment of 20 February 1969, *I.C.J. Reports 1969*, p. 3.

[68] *Ibid.*, pp. 46-47, para. 85.

[69] *Ibid.*, p. 47, para. 85 (*a*).

[70] *Ibid.*, para. 86.

[71] Merits, Judgment of 25 July 1974, *I.C.J. Reports 1974*, p. 3.

needs of conservation".[72] It enjoined the parties "to conduct their negotiations on the basis that each must in good faith pay reasonable regard to the legal rights of the other . . ., thus bringing about an equitable apportionment of the fishing resources based on the facts of the particular situation".[73]

3. Declarations and resolutions adopted by intergovernmental organizations, conferences and meetings

51. States have, within the United Nations and at other international conferences, repeatedly recognized the importance of co-operation in relation to international watercourses and other common natural resources.[74] Thus the Charter of Economic Rights and Duties of States[75] calls for co-operation among States in respect of shared natural resources in general:

Article 3

In the exploitation of natural resources shared by two or more countries, each State must co-operate on the basis of a system of information and prior consultations in order to achieve optimum use of such resources without causing damage to the legitimate interest of others.

A previous Special Rapporteur concluded that "the terms of this provision clearly embrace international watercourses",[76] a view with which the Commission evidently agreed.[77]

52. The General Assembly addressed the same subject in resolutions 2995 (XXVII) of 15 December 1972 on co-operation between States in the field of the environment, and 3129 (XXVIII) of 13 December 1973 on co-operation in the field of the environment concerning natural resources shared by two or more States. By way of illustration, the former provides, in its preamble, that "in exercising their sovereignty over their natural resources, States must seek, through effective bilateral and multilateral co-operation or through regional machinery, to preserve and improve the environment"; and paragraph 2 of the latter states that "co-operation between countries sharing . . . natural resources [common to two or more States] and interested in their exploitation must be developed on the basis of a system of information and prior consultation within the framework of the normal relations existing between them".

53. The subject of co-operation in the utilization of common water resources and in the field of environmental protection was also addressed in the Declaration of the 1972 United Nations Conference on the Human Environment (Stockholm Declaration),[78] Principle 24 of which provides:

Principle 24

International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big and small, on an equal footing. Co-operation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States.

The Action Plan for the Human Environment,[79] adopted by the same Conference, provides specifically in its Recommendation 51 for co-operation with regard to international watercourses. The introductory paragraph of that recommendation provides:

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[72] *Ibid.*, p. 31, para. 71.

[73] *Ibid.*, p. 33, para. 78.

[74] In addition to the instruments referred to in the text, see (*a*) section 5 (Environment) of the chapter on "Co-operation in the field of economics, of science and technology and of the environment" of the Helsinki Final Act adopted on 1 August 1975 (*Final Act of the Conference on Security and Co-operation in Europe* (Helsinki, 1975) (printed in Switzerland, Imprimeries Réunies, Lausanne)); (*b*) the "Principles concerning transfrontier pollution", recommendation C(74)224 adopted by the Council of OECD on 14 November 1974 (OECD, *OECD and the Environment* (Paris, 1986), p. 142); (*c*) the "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", decision 6/14 adopted by the Governing Council of UNEP on 19 May 1978 (UNEP, *Environmental Law. Guidelines and Principles,* No. 2, *Shared Natural Resources* (Nairobi, 1978)); (*d*) the Act of Asunción on the use of international rivers, adopted by the Ministers of Foreign Affairs of the River Plate Basin States (Argentina, Bolivia, Brazil, Paraguay and Uruguay) at their Fourth Meeting, from 1 to 3 June 1971 (OAS, *Ríos y Lagos Internacionales (Utilización para fines agrícolas e industriales)*, 4th ed. rev. (OEA/Ser.I/VI, CIJ-75 Rev.2) (Washington (D.C.), 1971), pp. 183-186; extracts in *Yearbook . . . 1974*, vol. II (Part Two), pp. 322-324, document A/CN.4/274, para. 326); (*e*) the agreements concluded by Argentina with Chile: Act of Santiago of 26 June 1971 concerning hydrologic basins (see Annex I, "America"); with Uruguay: Declaration of Buenos Aires of 9 July 1971 on water resources (see *Yearbook . . . 1974*, vol. II (Part Two), pp. 324-325, document A/CN.4/274, para. 328); and with Bolivia: Act of Buenos Aires of 12 July 1971 on hydrologic basins (*ibid.*, p. 325, para. 329).

The obligation to co-operate is formulated more generally in the fourth principle of the Declaration on Principles of International Law concerning Friendly Relations and Co-operation among States in accordance with the Charter of the United Nations (General Assembly resolution 2625 (XXV) of 24 October 1970, annex), as follows:

"States have the duty to co-operate with one another, irrespective of the differences in their political, economic and social systems, in the various spheres of international relations, in order to maintain international peace and security and to promote international economic stability and progress, the general welfare of nations and international co-operation free from discrimination based on such differences.

"To this end:

"(*a*) States shall co-operate with other States in the maintenance of international peace and security;

"(*b*) States shall co-operate in the promotion of universal respect for, and observance of, human rights and fundamental freedoms for all, and in the elimination of all forms of racial discrimination and all forms of religious intolerance;

"(*c*) States shall conduct their international relations in the economic, social, cultural, technical and trade fields in accordance with the principles of sovereign equality and non-intervention;

"(*d*) States members of the United Nations have the duty to take joint and separate action in co-operation with the United Nations in accordance with the relevant provisions of the Charter.

"States should co-operate in the economic, social and cultural fields as well as in the field of science and technology and for the promotion of international cultural and educational progress. States should co-operate in the promotion of economic growth throughout the world, especially that of the developing countries."

[75] General Assembly resolution 3281 (XXIX) of 12 December 1974.

[76] See Mr. Schwebel's first report, *Yearbook . . . 1979*, vol. II (Part One), p. 171, document A/CN.4/320, para. 112.

[77] See article 5 (Use of waters which constitute a shared natural resource) as provisionally adopted by the Commission in 1980 (para. 2 above).

[78] *Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972* (United Nations publication, Sales No. E.73.II.A.14 and corrigendum), part one, chap. I.

[79] *Ibid.*, chap. II.

It is recommended that Governments concerned consider the creation of river-basin commissions or other appropriate machinery for co-operation between interested States for water resources common to more than one jurisdiction.

54. The Mar del Plata Action Plan, adopted in 1977 by the United Nations Water Conference,[80] contains a number of recommendations relating to regional and international co-operation with regard to the use and development of international watercourses. For example, Recommendation 90 provides:

90. It is necessary for States to co-operate in the case of shared water resources in recognition of the growing economic, environmental and physical interdependencies across international frontiers. Such co-operation, in accordance with the Charter of the United Nations and principles of international law, must be exercised on the basis of the equality, sovereignty and territorial integrity of all States, and taking due account of the principle expressed, *inter alia*, in principle 21 of the Declaration of the United Nations Conference on the Human Environment.[81]

Recommendation 84 provides:

84. In the case of shared water resources, co-operative action should be taken to generate appropriate data on which future management can be based and to devise appropriate institutions and understandings for co-ordinated development.[82]

55. A recent addition to the declarations and resolutions of intergovernmental organizations is decision I (42) on "Principles regarding co-operation in the field of transboundary waters" adopted by the Economic Commission for Europe on 10 April 1987.[83] The following extracts illustrate the thrust of the principles:

General

1. . . . every State has the sovereign right to use its own water resources pursuant to its national policy and must, in a spirit of co-operation, take measures such that activities carried out within its territory do not cause damage to the environment of other States or of areas beyond the limits of its national jurisdiction. . . .

. . .

Co-operation

2. Transboundary effects of natural phenomena and human activities on transboundary waters are best regulated by the concerted efforts of the countries immediately concerned. Therefore co-operation should be established as practical as possible among riparian countries leading to a constant and comprehensive exchange of information, regular consultations and decisions concerning issues of mutual interest: . . .

4. Studies by intergovernmental and non-governmental organizations

56. The importance of co-operation between States in the use and development of international watercourses has also been recognized in numerous studies by intergovernmental and non-governmental organizations.[84] Thus the importance of co-operation between States to the effectiveness of procedural and other rules concerning international watercourses was expressly recognized in the Rules on Water Pollution in an International Drainage Basin, adopted by the International Law Association at its Sixtieth Conference, held at Montreal in 1982.[85] These Rules provide:

Article 4

In order to give effect to the provisions of these articles, States shall co-operate with the other States concerned.

57. Similarly, in the revised draft propositions on the law of international rivers considered in 1973 by a subcommittee of the Asian-African Legal Consultative Committee,[86] proposition IV provides:

1. Every basin State shall act in good faith in the exercise of its rights on the waters of an international drainage basin in accordance with the principles governing good-neighbourly relations.

. . .

A forceful statement of the importance of co-operation with regard to international water resources, owing to the physical properties of water, is found in principle XII of the European Water Charter:[87]

XII. Water knows no frontiers; as a common resource it demands international co-operation.

58. At its Salzburg session, in 1961, the Institute of International Law adopted a resolution on "Utilization of non-maritime international waters (except for navigation)",[88] the preamble of which states, *inter alia*: "the maximum utilization of available natural resources is a matter of common interest" and "in the utilization of waters of interest to several States, each of them can obtain, by consultation, by plans established in common and by reciprocal concessions, the advantages of a more rational exploitation of a natural resource". At its Athens session, in 1979, the Institute adopted a resolution on "The pollution of rivers and lakes and international law",[89] under which States are obliged to co-operate "in good faith with the other States concerned" (art. IV (*b*)). States are to carry out this duty by, *inter*

[80] See footnote 8 (*e*) above.

[81] Principle 21 of the Stockholm Declaration provides:

"*Principle 21*

"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." (See footnote 78 above.)

[82] See also resolution VI on technical co-operation among developing countries in the water sector, resolution VII on river commissions and resolution VIII on institutional arrangements for international co-operation in the water sector, adopted by the same Conference (see footnote 8 (*e*) above).

[83] See the annual report of ECE (28 April 1986-10 April 1987), *Official Records of the Economic and Social Council, 1987, Supplement No. 13* (E/1987/33-E/ECE/1148), pp. 65 *et seq.*

[84] See generally the studies referred to in *Yearbook . . . 1974*, vol. II (Part Two), pp. 199 *et seq.*, document A/5409, paras. 1069-1113; and pp. 338 *et seq.*, document A/CN.4/274, paras. 364-381, and pp. 356 *et seq.*, paras. 399-409.

[85] ILA, *Report of the Sixtieth Conference, Montreal, 1982* (London, 1983), pp. 535 *et seq.*

[86] For the texts of the propositions and the commentary by the subcommittee's Rapporteur, see Asian-African Legal Consultative Committee, *Report of the Fourteenth Session held in New Delhi* (10-18 January 1973) (New Delhi), pp. 99 *et seq.*; text reproduced in *Yearbook . . . 1974*, vol. II (Part Two), pp. 339-340, document A/CN.4/274, para. 367.

[87] Adopted on 28 April 1967 by the Consultative Assembly of the Council of Europe (Recommendation 493 (1967)), and on 26 May 1967 by the Committee of Ministers of the Council of Europe (resolution (67) 10); text reproduced in *Yearbook . . . 1974*, vol. II (Part Two), pp. 342-343, document A/CN.4/274, para. 373.

[88] *Annuaire de l'Institut de droit international, 1961*, vol. 49, tome II, pp. 381-384; text reproduced in *Yearbook . . . 1974*, vol. II (Part Two), p. 202, document A/5409, para. 1076.

[89] *Annuaire de l'Institut de droit international, 1979*, vol. 58, tome II, pp. 196 *et seq.*; text reproduced in Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), para. 259. The provisions of this resolution relating to the modalities of co-operation are reproduced in paragraph 105 below.

alia, providing data concerning pollution, giving advance notification of potentially polluting activities, and consulting on actual or potential transboundary pollution problems (art. VII).

5. The proposed article

59. In the light of the broad recognition of the obligation of States to co-operate in their relations in respect of common natural resources in general, and international watercourses in particular, as well as the necessity of such co-operation to the achievement of optimum development and allocation of international fresh water resources, article 10 below is submitted for the Commission's consideration as a foundation for succeeding articles on procedural rules. It is proposed as the first article of chapter III of the draft. A heading for that chapter is also proposed for organizational purposes, although the present report does not contain all the draft articles to be included in that chapter.

Chapter III

GENERAL PRINCIPLES OF CO-OPERATION, NOTIFICATION AND PROVISION OF DATA AND INFORMATION

Article 10. General obligation to co-operate

States shall co-operate in good faith with other concerned States in their relations concerning international watercourses and in the fulfilment of their respective obligations under the present articles.

Comment

In his second report, the Special Rapporteur did not submit an article on the general obligation to co-operate. He did indicate, however, that he might propose such a provision in a subsequent report,[90] recalling that a draft article providing for co-operation among States concerned had been submitted by the previous Special Rapporteur.[91]

B. Notification and consultation concerning proposed uses

60. In this section of the report, the Special Rapporteur resubmits the five draft articles contained in his second report, with some modifications, for the Commission's consideration. The extensive authority supporting the rules reflected in these draft articles has been set forth in great detail in previous reports of the present Special Rapporteur[92] and his predecessors.[93] Therefore no attempt at exhaustive coverage of that authority is made here.[94] Only certain examples are cited, for convenience of reference and to avoid undue repetition.

61. The purpose of articles on notification and consultation is to provide for a process of exchange of information between the States concerned when one of them contemplates the initiation of a new use (including changes in an existing use) of an international watercourse that may adversely affect the other States. Notification of proposed new uses benefits not only the States that are potentially affected by them, but the proposing State as well. In the absence of a notification and consultation procedure, cautious observance of the obligations to use the international watercourse in question in a reasonable and equitable manner and to refrain from causing other States appreciable harm might inhibit States from making new uses and, in general, from developing the watercourse. As Mr. Schwebel stated in his third report:

> . . . Doubts, divergences of criteria or convictions, or impasses cannot be resolved if the system States are not in communication with one another, particularly at the technical level of project and programme data and information, at least where these works and activities may have significant transnational impact. . . . To be sure, system States should be encouraged in appropriate cases to strengthen this residual duty by more detailed procedures and more specific scope for their data and information exchange in system agreements. . . . [But the duty itself] serves to foster the minimal co-operation essential to their beneficial use of their shared water resources. . . .[95]

62. With these introductory remarks as a background, the Special Rapporteur will briefly review the authority supporting a State's obligation to notify other States of contemplated new watercourse uses that may affect the watercourse within their territories, or their use thereof.

1. International agreements[96]

63. The 1954 Convention between Yugoslavia and Austria concerning water economy questions relating to the Drava[97] provides, in article 4, that should Austria, the upper riparian State,

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[90] Document A/CN.4/399 and Add.1 and 2 (see footnote 2 above), para. 198, para. (1) of the comments on draft article 10 (Notification concerning proposed uses).

[91] See article 10 (General principles of co-operation and management) as proposed by Mr. Evensen in his second report, document A/CN.4/381 (see footnote 3 above), para. 64.

[92] See chapter II of the Special Rapporteur's second report, document A/CN.4/399 and Add.1 and 2 (see footnote 2 above), in which many of the authorities surveyed bear upon the principles of notification and consultation; see also chapter III of that report.

[93] See especially Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), paras. 113-186, and particularly paras. 170-186.

[94] See also C. B. Bourne, "Procedure in the development of international drainage basins: Notice and exchange of information", *University of Toronto Law Journal*, vol. XXII (1972), p. 172 (hereinafter referred to as Bourne, "Notice"); C. B. Bourne, "Procedure in the development of international drainage basins: The duty to consult and to negotiate", *The Canadian Yearbook of International Law* (Vancouver), vol. X (1972), p. 212 (hereinafter referred to as Bourne, "The duty to consult and to negotiate"); and F. L. Kirgis, Jr., *Prior Consultation in International Law. A Study of State Practice* (Charlottesville (Va.), University Press of Virginia, 1983), chap. II.

[95] Document A/CN.4/348 (see footnote 8 (*c*) above), para. 158.

[96] A number of international agreements containing provisions relating to notification and consultation concerning new uses are listed in annex II to the present report.

[97] Entered into force on 15 January 1955 (see Annex II, "Europe"); summarized in *Yearbook . . . 1974*, vol. II (Part Two), pp. 142-143, document A/5409, paras. 693-699.

seriously contemplate plans for new installations to divert water from the Drava basin or for construction work which might affect the Drava river régime to the detriment of Yugoslavia, the Austrian Federal Government undertakes to discuss such plans with the Federal People's Republic of Yugoslavia prior to legal negotiations concerning rights in the water.[98]

64. An early example of a provision for new uses is contained in one of the few general conventions relating to the utilization of international watercourses. The 1923 Convention relating to the Development of Hydraulic Power Affecting more than One State[99] provides, in article 4, for advance discussions on proposed new uses between the States concerned:

Article 4

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

65. A number of agreements provide for notification and exchange of information concerning new projects or uses through an institutional mechanism established to facilitate the management of a watercourse. An example is the 1975 Statute of the Uruguay River,[100] adopted by Uruguay and Argentina, which contains detailed provisions on notification requirements, the content of the notification, the period for reply, and procedures applicable in the event that the parties fail to agree on the proposed project. These provisions are reproduced below in full, since they are relevant to most of the draft articles submitted in the present report:

Article 7

A party planning the construction of new channels, the substantial modification or alteration to existing ones, or the execution of any other works of such magnitude as to affect navigation, the régime of the river or the quality of its waters, shall so inform the Commission, which shall determine expeditiously, and within a maximum period of 30 days, whether the project may cause appreciable harm to the other party.

If it is determined that such is the case, or if no decision is reached on the subject, the party concerned shall, through the Commission, notify the other party of its project.

The notification shall give an account of the main aspects of the project and, as appropriate, its mode of operation and such other technical data as may enable the notified party to assess the probable effect of the project on navigation or on the régime of the river or the quality of its waters.

Article 8

The notified party shall be allowed a period of 180 days in which to evaluate the project, from the date on which its delegation to the Commission receives the notification.

If the documentation referred to in article 7 is incomplete, the notified party shall be allowed a period of 30 days in which, through the Commission, so to inform the party planning to execute the project.

The aforementioned period of 180 days shall begin to run from the date on which the delegation of the notified party receives complete documentation.

This period may be extended by the Commission, at its discretion, if the complexity of the project so requires.

Article 9

If the notified party presents no objections or does not reply within the period specified in article 8, the other party may execute or authorize the execution of the planned project.

Article 10

The notified party shall have the right to inspect the works in progress in order to determine whether they are being carried out in accordance with the project submitted.

Article 11

If the notified party concludes that the execution of the works or the mode of operation may cause appreciable harm to navigation or to the régime of the river or the quality of its waters, it shall so inform the other party, through the Commission, within the period of 180 days specified in article 8.

Its communication shall state which aspects of the works or of the mode of operation may cause appreciable harm to navigation or to the régime of the river or the quality of its waters, the technical grounds for that conclusion and suggested changes in the project or the mode of operation.

Article 12

If the parties fail to reach agreement within 180 days of the date of the communication referred to in article 11, the procedure indicated in chapter XV shall be followed.[101]

The 1973 Treaty on the River Plate and its Maritime Outlet,[102] between the same parties, contains similar provisions for notification of contemplated uses through an administrative commission.

66. Experience under the 1909 Treaty between Great Britain and the United States of America relating to boundary waters between Canada and the United States has demonstrated the need for prior notification and consultation concerning new uses having potentially adverse transboundary effects. The former chairman of the Canadian Section of the International Joint Commission, established by the Treaty, emphasized the importance of such procedures in the following terms:

. . . First, it is quite impossible to have satisfactory co-riparian relationships without the concerned parties being obliged by custom or

[98] The article goes on to provide that, if no agreed settlement can be reached by discussion, either directly or through the joint commission established by the Convention, the matter is to be referred to the Court of Arbitration also provided for in the Convention.

[99] The Convention and its Protocol of Signature, which were adopted by the Second Conference on Communications and Transit, held at Geneva in 1923, entered into force on 30 June 1925 (see Annex II, "General convention"); summarized in *Yearbook . . . 1974*, vol. II (Part Two), pp. 57 *et seq.*, document A/5409, paras. 68-78, giving a list of the 39 States (of Western and Eastern Europe, Latin America, North America and Asia, as well as Nordic countries) represented at the Conference (p. 57, footnote 39). A much earlier example of a treaty requiring advance notification is the Treaty of Bayonne (Boundary Treaty between Spain and France) of 26 May 1866 and its Additional Act of the same date, which were construed and applied by the arbitral tribunal in the well-known *Lake Lanoux* case (see footnote 63 above). The relevant provisions of the Additional Act to the Boundary Treaties of 2 December 1856, 14 April 1862 and 26 May 1866 are reproduced in *International Law Reports, 1957* (London), vol. 24 (1961), pp. 102-105 (see also p. 138); and in the volume of the United Nations Legislative Series, *Legislative Texts and Treaty Provisions concerning the Utilization of International Rivers for Other Purposes than Navigation* (Sales No. 63.V.4) (hereinafter referred to as "Legislative Texts . . ."), p. 672, No. 185; see also the summary in *Yearbook . . . 1974*, vol. II (Part Two), pp. 170-171, document A/5409, paras. 895-902.

[100] See Annex II, "America". The relevant articles of this agreement are also reproduced in Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), para. 180.

[101] Chapter XV (art. 60) of the Statute, referred to in article 12, provides for judicial settlement of disputes, while chapter XIV (arts. 58 and 59) provides for a conciliation procedure.

[102] Signed at Montevideo on 19 November 1973 and entered into force on 12 February 1974 (INTAL, *Derecho de la Integración* (Buenos Aires), vol. VII, No. 15 (March 1974), p. 225; *International Legal Materials* (Washington, D.C.), vol. XIII (1974), p. 251); summarized in *Yearbook . . . 1974*, vol. II (Part Two), pp. 298-300, document A/CN.4/274, paras. 115-130.

practice to consult with the others before any plans are undertaken in the private or public sector which may have transboundary water quality or water quantity, or general environmental, effects on other members of the river basin family. Prior consultation is, therefore, of the essence and due notice and consultation becomes a prerequisite for sound relations.[103]

67. The 1960 Convention on the Protection of Lake Constance against Pollution[104] provides in article 1, paragraph 3, for notification and discussions concerning planned projects:

3. In particular, the riparian States shall inform each other, in good time, of any contemplated utilization of the waters that might prejudice the interests of another riparian State in maintaining the salubrious condition of the waters of Lake Constance. Such contemplated measures shall not be put into effect until they have been discussed jointly by the riparian States, unless delay would entail a danger or the other States have expressly consented to their being carried out immediately.[105]

68. It will be recalled that the 1972 Statute of the Senegal River[106] requires that States parties receive the prior approval of other contracting States before undertaking any project which might appreciably affect the characteristics of the régime of the river (art. 4). The treaty régime governing the Niger River similarly provides for close co-operation between the riparian States and prior notification and consultation, through the Niger River Commission, concerning any works or modification likely to affect the characteristics of Niger River waters.[107]

69. One author notes that the requirement of prior consent was also "applied rather consistently by the United Kingdom in its treaties with indigenous Governments in Africa and the Indian subcontinent".[108]

70. Negotiations were held between the United Arab Republic and Sudan concerning the Aswan High Dam project, in response to Sudan's claim that it was entitled to be consulted in a timely fashion. The negotiations led to the 1959 Agreement for the Full Utilization of the Nile Waters,[109] which was concluded before construction of the dam began.[110]

71. The 1960 Indus Waters Treaty between India and Pakistan, concluded with the participation of the World Bank,[111] contains in article VII, paragraph 2, the following detailed provisions concerning notification of planned works:

2. If either Party plans to construct any engineering work which would cause interference with the waters of any of the Rivers and which, in its opinion, would affect the other Party materially, it shall notify the other Party of its plans and shall supply such data relating to the work as may be available and as would enable the other Party to inform itself of the nature, magnitude and effect of the work. If a work would cause interference with the waters of any of the Rivers but would not, in the opinion of the Party planning it, affect the other Party materially, nevertheless the Party planning the work shall, on request, supply the other Party with such data regarding the nature, magnitude and effect, if any, of the work as may be available.

72. These agreements and many others containing similar provisions illustrate the widespread practice of States of agreeing to notify and consult with other States with regard to proposed uses that could significantly affect the other States' use of or interest in an international watercourse. The existence of an obligation of this nature is also indicated by the decisions of bodies called upon to resolve disputes between States relating to international watercourses.

2. Decisions of international courts and tribunals

73. The most noteworthy international decision relating to notification and consultation is, of course, the award of 16 November 1957 by the arbitral tribunal in the *Lake Lanoux* case, which was discussed exten-

[103] M. Cohen, "River basin planning: Observations from international and Canada-United States experience", Dakar Meeting Proceedings (see footnote 8 (*d*) above), p. 126, part two; cited in Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), para. 179.

[104] Concluded at Steckborn (Switzerland) on 27 October 1960 and entered into force on 10 November 1961 (see Annex II, "Europe"); the parties are Baden-Württemberg, Bavaria, Austria and Switzerland; summarized in *Yearbook . . . 1974*, vol. II (Part Two), pp. 110-111, document A/5409, paras. 435-438.

[105] See also arts. 7-11 of the Agreement of 30 April 1966 between Austria, the Federal Republic of Germany and Switzerland regulating the withdrawal of water from Lake Constance, which entered into force on 25 November 1967 (United Nations, *Treaty Series*, vol. 620, p. 191); summarized in *Yearbook . . . 1974*, vol. II (Part Two), pp. 301-302, document A/CN.4/274, paras. 142-146. According to this Agreement, "riparian States shall, before authorizing [certain specified] withdrawals of water, afford one another in good time an opportunity to express their views" (art. 7). In the event that the parties are unable to resolve any differences regarding proposed withdrawals, provision is made for progressive stages of dispute resolution, including consultations through a joint committee, discussions through the diplomatic channel and, finally, binding arbitration (arts. 8-11).

[106] See footnote 35 above and Annex I, "Africa".

[107] Art. 4 of the Act of Niamey of 26 October 1963 (see footnote 57 above and Annex I, "Africa"), and art. 12 of the Agreement of 25 November 1964 concerning the Niger River Commission (see Annex II, "Africa"). See the discussion of the Niger régime in Kirgis, *op. cit.* (footnote 94 above), pp. 47-49.

[108] Kirgis, *op. cit.*, p. 42, pointing out that: "In each instance the United Kingdom, with its overwhelming bargaining power, stood to gain from the prior consent requirement." See, for example, the Agreement of 9 May 1906 between Great Britain and the Independent State of the Congo (*British and Foreign State Papers, 1905-1906*, vol. 99, p. 173; United Nations, *Legislative Texts . . .*, p. 99, No. 5); the Treaty of 15 May 1902 between Ethiopia and the United Kingdom relative to the frontiers between the Anglo-Egyptian Sudan, Ethiopia and Eritrea (*British and Foreign State Papers, 1901-1902*, vol. 95, p. 467; United Nations, *Legislative Texts . . .*, p. 115, No. 13); and the Exchange of Notes of 7 May 1929 between the United Kingdom and Egypt in regard to the use of waters of the Rive Nile for irrigation purposes (League of Nations, *Treaty Series*, vol. XCIII, p. 43; United Nations, *Legislative Texts . . .*, p. 100, No. 7).

[109] Signed at Cairo on 8 November 1959 and entered into force on 12 December 1959 (United Nations, *Treaty Series*, vol. 453, p. 51).

[110] Construction of the dam was not begun until 1960. Kirgis concludes that this case "is therefore normatively significant and tends to support a rule of consultation, at least before final action is taken" (*op. cit.* (footnote 94 above), p. 44).

[111] Signed at Karachi on 19 September 1960 and entered into force on 12 January 1961 (see Annex I, "Asia"). See also Kirgis's discussion (*op. cit.*, pp. 46-47) of negotiations between Bangladesh and India concerning the diversion of water from the Ganges River by India, which led to the Agreement of 5 November 1977 on sharing of the Ganges waters (*International Legal Materials* (Washington, D.C.), vol. XVII (1978), p. 103; to be published in United Nations, *Treaty Series*, No. 16210). Kirgis concludes:

"Taken as a whole . . . the Ganges diversion situation supports the prior consultation norm for successive rivers. India did consult extensively before building a dam and diversion canal of a specified capacity; it proceeded to use the canal up to its capacity only when any damage to Bangladesh would be minimal; and it agreed to set up [a] joint committee to which Bangladesh could resort for consultation in the event of later difficulties." (P. 47.)

sively in the Special Rapporteur's second report.[112] This decision was based on a number of principles of general international law concerning watercourses, including the following: (*a*) at least in the factual context of the case, international law does not require prior agreement between the upper and lower riparian States concerning a proposed new use, and "international practice prefers to resort to less extreme solutions, limiting itself to requiring States to seek the terms of an agreement by preliminary negotiations without making the exercise of their competence conditional on the conclusion of this agreement";[113] (*b*) under then current trends in international practice concerning hydroelectric development, "consideration must be given to all interests, whatever their nature, which may be affected by the works undertaken, even if they do not amount to a right";[114] (*c*) "the upper riparian State, under the rules of good faith, has an obligation to take into consideration the various interests concerned, to seek to give them every satisfaction compatible with the pursuit of its own interests and to show that it has, in this matter, a real desire to reconcile the interests of the other riparian with its own";[115] (*d*) there is an "intimate connection between the obligation to take adverse interests into account in the course of negotiations and the obligation to give a reasonable place to such interests in the solution adopted".[116]

74. France had, in fact, consulted with Spain prior to the initiation of the diversion project at issue in that case, in response to Spain's claim that it was entitled to prior notification under article 11 of the 1866 Additional Act to the Treaty of Bayonne.[117]

75. The fact that there are not more decisions of international courts and tribunals bearing upon international watercourses in general, and the duty to notify and consult in particular, is probably due in large part to the prevalence of joint commissions and other administrative mechanisms through which States can prevent and resolve disputes concerning the use of watercourses.

3. Declarations and resolutions adopted by intergovernmental organizations, conferences and meetings

76. Recommendation 51 of the Action Plan for the Human Environment[118] contains the following principle relating to notification of planned new uses:

> 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;

77. Nearly 40 years earlier, the Seventh International Conference of American States adopted the Declaration of Montevideo,[119] which provides not only for advance notice of planned works, but also for prior consent with regard to potentially injurious modifications:

> 2. . . .
>
> . . . 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.
>
> . . .
>
> 7. The works which a State plans to perform in international waters shall be previously announced to the other riparian or co-jurisdictional States. The announcement shall be accompanied by the necessary technical documentation in order that the other interested States may judge the scope of such works, and by the name of the technical expert or experts who are to deal, if necessary, with the international side of the matter.
>
> 8. The announcement shall be answered within a period of three months, with or without observations. In the former case, the answer shall indicate the name of the technical expert or experts to be charged by the respondent with dealing with the technical experts of the applicant, and shall propose the date and place for constituting the Mixed Technical Commission of technical experts from both sides to pass judgment on the case. The Commission shall act within a period of six months, and if within this period no agreement has been reached, the members shall set forth their respective opinions, informing the Governments thereof.
>
> . . .

78. The Declaration of Asunción on the Use of International Rivers, adopted by the Ministers of Foreign Affairs of the River Plate Basin States at their Fourth Meeting, held from 1 to 3 June 1971,[120] also embodies a prior consent requirement, but only for contiguous rivers:

> 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.[121]

79. On 14 November 1974, the Council of OECD adopted recommendation C(74)224 on "Principles concerning transfrontier pollution",[122] which, although of general application, is directly relevant to the present study. The recommendation contains, in an annex, a "Principle of information and consultation" which reads:

> 6. Prior to the initiation in a country of works or undertakings which might create a significant risk of transfrontier pollution, this

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[112] See footnotes 63 and 64 above.

[113] Para. 11 (third subparagraph) of the award (*Yearbook . . . 1974*, vol. II (Part Two), p. 197, document A/5409, para. 1065).

[114] Para. 22 (second subparagraph) of the award (*ibid.*, p. 198, para. 1068).

[115] Para. 22 (third subparagraph) of the award (*ibid.*).

[116] Para. 24 (penultimate subparagraph) of the award (*ibid.*).

[117] See footnote 99, *in fine* above.

[118] *Report of the United Nations Conference on the Human Environment . . .* (see footnote 78 above), chap. II.

[119] Declaration of Montevideo concerning the industrial and agricultural use of international rivers, resolution LXXII adopted by the Seventh International Conference of American States at its fifth plenary session, 24 December 1933 (*The International Conferences of American States, First Supplement, 1933-1940* (Washington (D.C.), Carnegie Endowment for International Peace, 1940), p. 88; reproduced in *Yearbook . . . 1974*, vol. II (Part Two), p. 212, document A/5409, annex I.A). Paragraph 9 of the Declaration provides for the resolution of any remaining differences through diplomatic channels, conciliation, and ultimately any procedures under conventions in effect in America. The tribunal is to act within a three-month period and its award is to take into account the proceedings of the Mixed Technical Commission provided for in paragraph 8. It may be noted that Bolivia and Chile recognized that the Declaration embodied obligations applicable to the Lauca River dispute between them. See OAS Council, documents OEA/SER.G/VI, C/INF-47 (15 and 20 April 1962) and OEA/SER.G/VI, C/INF-50 (19 April 1962).

[120] Resolution No. 25 annexed to the Act of Asunción on the use of international rivers (see footnote 74 (*d*) above).

[121] With regard to successive international rivers, the Declaration provides in paragraph 2 that "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".

[122] See footnote 74 (*b*) above.

country should provide early information to other countries which are or may be affected. It should provide these countries with relevant information and data, the transmission of which is not prohibited by legislative provisions or prescriptions or applicable international conventions, and should invite their comments.

7. Countries should enter into consultation on an existing or foreseeable transfrontier pollution problem at the request of a country which is or may be directly affected and should diligently pursue such consultations on this particular problem over a reasonable period of time.

8. Countries should refrain from carrying out projects or activities which might create a significant risk of transfrontier pollution without first informing the countries which are or may be affected and, except in cases of extreme urgency, providing a reasonable amount of time in the light of circumstances for diligent consultation. Such consultations held in the best spirit of co-operation and good-neighbourliness should not enable a country to unreasonably delay or to impede the activities or projects on which consultations are taking place.

80. Finally, among the recommendations of the United Nations Water Conference[123] relating to "regional co-operation", Recommendation 86 contains the following relevant paragraph:

(g) In the absence of an agreement on the manner in which shared water resources should be utilized, countries which share these resources should exchange relevant information on which their future management can be based in order to avoid foreseeable damages;

4. Studies by intergovernmental and non-governmental organizations

81. In 1963, the Inter-American Juridical Committee adopted a draft convention on the industrial and agricultural use of international rivers and lakes, which was transmitted for comments to member States of OAS. A revised draft convention was prepared by the Committee in 1965.[124] That revised draft includes a complete set of provisions on notification and consultation which are in many respects similar to those contained in the 1933 Declaration of Montevideo (see para. 77 above). The articles setting out the basic obligations of notification and reply are the following:

Article 8

A State that plans to build works for utilization of an international river or lake must first notify the other interested States. The notification shall be in writing and shall be accompanied by the necessary technical documents in order that the other interested States may have sufficient basis for determining and judging the scope of the works. Along with the notification, the names of the technical expert or experts who are to have charge of the first international phase of the matter should also be supplied.

Article 9

The reply to the notification must be given within six months and no postponements of any kind may be allowed, unless the requested State asks for supplementary information in addition to the documents that were originally provided, which request may be made only within thirty days following the date of the said notification and must set forth in specific terms the background information that is desired. In such case, the term of six months shall be counted from the date on which the aforesaid supplementary information is provided.

. . .

Subsequent provisions of the draft permit the notifying State to proceed if it receives no reply within the period stipulated in article 9, and provide for the formation of a joint commission of technical experts to review any observations made in reply to the notification. In its comments introducing the revised draft convention, the Inter-American Juridical Committee stressed the importance of provisions on notification of planned works as follows:

The Convention would clearly be incomplete without this section. It is obviously not sufficient to enunciate general principles if, when a case arises, the parties are not required to establish contact in order to compare views and try to reconcile their interests.

It should therefore be made mandatory for interested States to be notified of the intention of another State to carry out such works. In this way, potentially serious conflicts are eliminated and, instead, understanding among States will be facilitated, to the benefit of the works themselves, because, once agreement among the interested States has been confirmed, they will be able to proceed more rapidly and free of material or legal obstacles.[125]

82. At its tenth session, held at Karachi in January 1969, the Asian-African Legal Consultative Committee appointed a sub-committee to prepare draft articles on the law of international rivers, "particularly in the light of the experience of the countries of Asia and Africa and reflecting the high moral and juristic concepts inherent in their own civilizations and legal systems".[126] After considering drafts submitted by the delegations of Pakistan and Iraq, as well as a proposal that the first eight articles of the Helsinki Rules be taken as the basis of the Committee's study, the sub-committee recommended to the plenum in 1973 that it consider a set of revised draft propositions submitted by the sub-committee's Rapporteur.[127] The following provisions of the revised draft, which is in fact similar in many respects to the Helsinki Rules, are relevant to the present study:

Proposition IV

. . .

2. A basin State may not . . . undertake works or utilizations of the waters of an international drainage basin which would cause substantial damage to another basin State unless such works or utilizations are approved by the States likely to be adversely affected by them or are otherwise authorized by a decision of a competent international court or arbitral commission.

. . .

Proposition X

A State which proposes a change of the previously existing uses 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. In case agreement is not reached through such consultation, the States concerned should seek the advice of a technical expert or commission. If this does not lead to agreement, resort should be had to the other peaceful methods provided for in Article 33 of the United Nations Charter, and in particular, to international arbitration and adjudication.

83. The Institute of International Law first decided to study the question of the law relating to international rivers in 1910, and at its Madrid session, in 1911, adopted a resolution on "International regulations regarding the use of international watercourses".[128]

[123] See footnote 8 (*e*) above.

[124] *Report of the Inter-American Juridical Committee on the work accomplished during its 1965 meeting* (OEA/Ser.I/VI.1, CIJ-83) (Washington (D.C.), 1966), pp. 7-10; text reproduced in part in *Yearbook . . . 1974*, vol. II (Part Two), pp. 349-351, document A/CN.4/274, para. 379.

[125] See OAS, *Ríos y Lagos . . ., op. cit.* (footnote 74 (*d*) above), p. 128.

[126] See *Yearbook . . . 1974*, vol. II (Part Two), p. 338, document A/CN.4/274, para. 364.

[127] See footnote 86 above.

[128] *Annuaire de l'Institut de droit international, 1911*, vol. 24, pp. 365-367; reproduced in *Yearbook . . . 1974*, vol. II (Part Two), p. 200, document A/5409, para. 1072.

In 1956, the Institute again turned its attention to this question, appointing a commission to study the topic of the utilization of non-maritime international waters (except for navigation), with Mr. Juraj Andrassy as Rapporteur. At its Salzburg session, in 1961, the Institute adopted a resolution on that topic which was based on a draft prepared by the Rapporteur.[129] The following provisions are of present interest:

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 utilizations 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.

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 occasion 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.

Article 8

If the interested States fail to reach agreement within a reasonable time, it is recommended that they submit to judicial settlement or arbitration the question whether the project is contrary to the above rules.

If the State objecting to the works or utilizations projected refuses to submit to judicial settlement or arbitration, the other State is free, subject to its responsibility, to go ahead, while remaining bound by its obligations arising from the provisions of articles 2 to 4.[130]

Article 9

It is recommended that States interested in particular hydrographic basins investigate the desirability of creating common organs for establishing plans of utilization designed to facilitate their economic development as well as to prevent and settle disputes which might arise.

84. At its Tenth Conference, held at Buenos Aires in 1957, the Inter-American Bar Association unanimously adopted a resolution on the use of international rivers.[131] After stating the general rule that States have the right to use the waters of an international watercourse system "in so far as such use does not affect adversely the equal right of the States having under their jurisdiction other parts of the system" (para. I.1), the resolution goes on to lay down, *inter alia*, a rule of prior consent to the initiation of new, potentially harmful uses:

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

85. At its Forty-seventh Conference, held at Dubrovnik in 1956, the International Law Association adopted a statement of principles "as a sound basis upon which to study further the development of rules of international law with respect to international rivers".[132] One of those principles concerns prior consultation regarding new works:

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

The adoption in 1966 of the Helsinki Rules on the Uses of the Waters of International Rivers[133] was a milestone in the Association's work on the law of international watercourses.[134] In chapter 6 of the Rules, entitled "Procedures for the prevention and settlement of disputes", the Association made several recommendations of present interest:

Article XXIX

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 régime of the basin in a way which might give rise to a dispute . . . 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 régime 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 of the basin.

On the question whether these provisions reflect a legal obligation, one commentator has made the following observations:

[129] See footnote 88 above.

[130] Articles 2 and 3 concern the right of every State to utilize waters which traverse its territory, the limitation of that right by the right of utilization of "other States interested in the same watercourse or hydrographic basin" (art. 2, second subpara.) and settlement on the basis of equity of any disagreements on the scope of the right of utilization (art. 3).

[131] Inter-American Bar Association, *Proceedings of the Tenth Conference, Buenos Aires, 1957* (Buenos Aires, 1958), pp. 82-83; reproduced in *Yearbook . . . 1974*, vol. II (Part Two), p. 208, document A/5409, para. 1092.

[132] ILA, *Report of the Forty-seventh Conference, Dubrovnik, 1956* (London, 1957), pp. x-xii, resolution 3; text reproduced in *Yearbook . . . 1974*, vol. II (Part Two), p. 203, document A/5409, para. 1080.

[133] See footnote 47 above.

[134] For the history of the International Law Association's work on the subject, see *Yearbook . . . 1974*, vol. II (Part Two), pp. 202 *et seq.*, document A/5409, paras. 1077-1089; and pp. 357 *et seq.*, document A/CN.4/274, paras. 404-409.

. . . When in these articles the term "it is recommended" is used, this must not be misinterpreted as falling short of a legal obligation; the term is only the appropriate expression for a procedural obligation. In fact, the "recommendations" contained in [the] articles . . . are nothing else than the common and long-established practice of all States in disputes of this sort . . . The near universality [of international agreements containing similar provisions] is a very solid basis indeed for our assumption that here an obligatory custom has developed.[135]

In any event, the International Law Association subsequently adopted articles which clearly indicate an obligation to provide advance notification. At its Fifty-ninth Conference held at Belgrade in 1980, the Association adopted nine articles on "Regulation of the flow of water of international watercourses",[136] which include the following provisions:

Article 7

1. A basin State is under a duty to give the notice and information and to follow the procedure set forth in article XXIX of the Helsinki Rules.

. . .

Article 8

In the event of objection to the proposed regulation, the States concerned shall use their best endeavours with a view to reaching an agreement. If they fail to reach an agreement within a reasonable time, the States should seek a solution in accordance with chapter 6 of the Helsinki Rules.

At its Sixtieth Conference, held at Montreal in 1982, the Association adopted a set of Rules on Water Pollution in an International Drainage Basin,[137] articles 5 and 6 of which are relevant to the present study:

Article 5

Basin States shall:

(*a*) inform the other States concerned regularly of all relevant and reasonably available data, both qualitative and quantitative, on the pollution of waters of the basin, its causes, its nature, the damage resulting from it, and the preventive procedures;

(*b*) notify the other States concerned in due time of any activities envisaged in their own territories that may involve a significant threat of, or increase in, water pollution in the territories of those other States; and

(*c*) promptly inform States that might be affected of any sudden change of circumstances that may cause or increase water pollution in the territories of those other States.

Article 6

Basin States shall consult one another on actual or potential problems of water pollution in the drainage basin so as to reach, by methods of their own choice, a solution consistent with their rights and duties under international law. This consultation, however, shall not unreasonably delay the implementation of plans that are the subject of the consultation.

And at its Sixty-second Conference, held at Seoul in 1986, the Association adopted the "Complementary Rules applicable to International Water Resources".[138] The introduction to the Complementary Rules states that they:

. . . may be regarded as guidelines for the application of the 1966 Helsinki Rules . . . [and] are . . . complementary to them, answering some questions the Rules have left more or less open. These questions, related to the practical application of the Rules, concern:

. . .

the notification procedure and its legal consequences (article III).

Article III of the Complementary Rules, entitled "Notification and objection", provides, *inter alia*, that a State proposing to undertake a project "that may substantially affect the interests of any co-basin State . . . shall give such State or States notice of the project", that the notified State "shall have a reasonable period of time, which shall be not less than six months, to evaluate the project", and that, if a State objects to the project, "the States concerned shall make every effort expeditiously to settle the matter consistent with the procedures set forth in chapter 6 of the Helsinki Rules".

86. In 1968, pursuant to Economic and Social Council resolution 1033 (XXXVII) of 14 August 1964, the Secretary-General appointed a panel of experts to assist Member States in dealing effectively with problems associated with the development and management of international water resources. The recommendations and conclusions of the Panel of Experts on the Legal and Institutional Aspects of International Water Resources Development are set forth in a highly instructive report.[139] The report points out that, while relatively minor modifications in watercourse use may be handled by the States concerned on an *ad hoc* basis, larger projects are best dealt with through some form of joint machinery:

Initial decisions with respect to international water resources projects and programmes may appear to call merely for co-ordination and consultation; however, as soon as major undertakings are envisaged, the additional legal and institutional machinery for the facilitation of actual collaboration becomes desirable, if not indispensable. . . .[140]

The approach of the report to new uses is generally to provide for procedures designed to anticipate potential problems and deal with them at the technical level, so as to avoid unnecessary politicization. It states:

. . . Emphasis is placed on mechanisms conducive to early resolution, at the technical level, in a deliberate effort to prevent differences from becoming formal disputes between or among the parties to an international basin or project agreement, or between these States and third States. . . .

. . . Successful accommodation or early settlement avoids work stoppages, strained relations and, most importantly, the hardening of the national position that inevitably occurs once a difference emerges as a full-fledged dispute.[141]

The report repeatedly emphasizes the importance of formulating positions on the basis of complete factual data as well as engineering and management considerations, a process that would be impossible without advance notification of planned projects:

Experience has shown that a Government's position is often taken in response to sincere but somewhat speculative apprehension, that is, fear of what might possibly happen if a certain course of action is pursued. With respect to the water resources in the international system, it is normally helpful to all concerned to ascertain the extent to which such fear is justified. This can be done only by full development of the objective data base from which all parties should be drawing their conclusions. The collection of all relevant data and their dissemination to all concerned may serve to allay the apprehension, or may show the apprehension to be well founded. Full study of the problem

[135] H. R. Külz, "Further water disputes between India and Pakistan", *The International and Comparative Law Quarterly* (London), vol. 18 (1969), p. 734.

[136] ILA, *Report of the Fifty-ninth Conference, Belgrade, 1980* (London, 1982), pp. 362 *et seq.*

[137] See footnote 85 above.

[138] ILA, *Report of the Sixty-second Conference, Seoul, 1986* (London, 1987), pp. 275 *et seq.*

[139] United Nations, *Management of International Water Resources: Institutional and Legal Aspects* (see footnote 46 above).

[140] *Ibid.*, p. 18, para. 54.

[141] *Ibid.*, p. 144, paras. 454-455.

on the basis of all the information may cause one side or the other to give ground or propose some solution that will resolve the differences.[142]

87. Finally, the Intergovernmental Working Group of Experts on Natural Resources Shared by Two or More States, established by the Governing Council of UNEP,[143] adopted a final report in 1978 which contains a set of "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".[144] The draft principles were subsequently approved by the Governing Council, which referred them to the General Assembly for adoption.[145] They were then submitted by the Secretary-General to Member States for comment, and discussed in the Second Committee. In resolution 34/186, adopted without a vote on 18 December 1979, the General Assembly "takes note" of the report of the Working Group and of the draft principles and:

Requests all States to use the principles as guidelines and recommendations in the formulation of bilateral or multilateral conventions regarding natural resources shared by two or more States, on the basis of the principle of good faith and in the spirit of good-neighbourliness . . .

While the draft principles do not contain a definition of the expression "natural resources shared by two or more States",[146] international watercourses would seem to fall comfortably within their ambit. Principles 6 and 7 are particularly relevant to the present study:

Principle 6

1. It is necessary for every State sharing a natural resource with one or more other States:

(*a*) to notify in advance the other State or States of the pertinent details of plans to initiate, or make a change in, the conservation or utilization of the resource which can reasonably be expected to affect significantly[147] the environment in the territory of the other State or States; and

(*b*) upon request of the other State or States, to enter into consultations concerning the above-mentioned plans; and

(*c*) to provide, upon request to that effect by the other State or States, specific additional pertinent information concerning such plans; and

(*d*) if there has been no advance notification as envisaged in subparagraph (*a*) above, to enter into consultations about such plans upon request of the other State or States.

2. In cases where the transmission of certain information is prevented by national legislation or international conventions, the State or States withholding such information shall nevertheless, on the basis, in particular, of the principle of good faith and in the spirit of good-neighbourliness, co-operate with the other interested State or States with the aim of finding a satisfactory solution.

Principle 7

Exchange of information, notification, consultations and other forms of co-operation regarding shared natural resources are carried out on the basis of the principle of good faith and in the spirit of good-neighbourliness and in such a way as to avoid any unreasonable delays either in the forms of co-operation or in carrying out development or conservation projects.

5. The proposed articles

88. The Special Rapporteur submits that the foregoing authorities, among others,[148] provide ample support for the Commission to include in the draft articles under consideration a set of provisions on notification and consultation regarding contemplated new uses of an international watercourse. Moreover, many of these authorities reflect a recognition of the need to provide for a graduated set of procedures in order to allow the States involved to preserve or arrive at an equitable system-wide allocation of watercourse uses and benefits, while preventing the escalation of disputes. Thus they include provisions concerning negotiation and, ultimately, third-party dispute settlement as a necessary complement to the initial requirements concerning notification, information exchange and consultation.

89. The set of articles proposed in this section follows the approach taken by these authorities, requiring notification regarding proposed projects, and that the States concerned attempt to resolve any difference of views as to the effect of a proposed project first through consultations and, if these are unsuccessful, through negotiations. If the parties are unable to resolve their differences satisfactorily through negotiations, the articles would require them to have recourse to third-party dispute resolution. The latter means of dispute settlement, which will be addressed in a subsequent report, might itself consist of various stages, including, for example, initial referral to conciliation and ultimate resort to binding arbitration.

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[142] *Ibid.*, p. 145, para. 458.

[143] Decision 44 (III) of 25 April 1975 of the Governing Council of UNEP, pursuant to General Assembly resolution 3129 (XXVIII) of 13 December 1973. The Working Group held five sessions between 1976 and 1978.

[144] UNEP/IG.12/2, annexed to UNEP/GC.6/17. The decisions of the Governing Council and the 1978 report of the Working Group are reproduced in *International Legal Materials* (Washington (D.C.), vol. XVII (1978), pp. 1091 *et seq.* For a summary of the background to the draft principles and of the action taken by the General Assembly, see the note presented by Constantin A. Stavropoulos at the Commission's thirty-fifth session, *Yearbook . . . 1983*, vol. II (Part One), p. 195, document A/CN.4/L.353.

[145] Governing Council decision 6/14 of 19 May 1978. For the final text of the draft principles, referred to as "Principles", see footnote 74 (*c*) above.

[146] Due to lack of time, the Working Group was not able to elaborate a definition of "shared natural resources" (UNEP/IG.12/2 (annexed to UNEP/GC.6/17), para. 16).

[147] The expression "significantly affect" is defined in the draft principles as follows:

"*Definition*

"In the present text, the expression 'significantly affect' refers to any appreciable effects on a shared natural resource and excludes *de minimis* effects."

[148] As already stated, this survey is offered for illustrative purposes only and does not purport to be exhaustive. Not mentioned in the survey are the studies by various experts in the field on the duty to provide notification and to consult concerning proposed new uses. See, for example, Mr. Schwebel's third report, document A/CN.4/348 (footnote 8 (*c*) above); Bourne, "Notice" and "The duty to consult and to negotiate", *loc. cit.* (footnote 94 above); Kirgis, *op. cit.* (footnote 94 above); Schachter, *op. cit.* (footnote 51 above), p. 69; United States of America, Memorandum of the State Department of 21 April 1958, *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*, 85th Congress, 2nd session, Senate document No. 118 (Washington (D.C.), 1958), pp. 90-91; W. L. Griffin, "The use of waters of international drainage basins under customary international law", *The American Journal of International Law* (Washington, D.C.), vol. 53 (1959), pp. 79-80; Smith, *op. cit.* (footnote 8 (*g*) above), pp. 151-152; and G. E. Glos, *International Rivers: A Policy-Oriented Perspective* (Singapore, University of Malaya, 1961), p. 144.

90. While the Special Rapporteur would thus recommend a graduated process of resolving any disputes concerning new uses—since such a process seems most likely to result in agreement between the States involved—he wishes to emphasize the importance of not allowing this process to delay unduly the implementation of plans of new watercourse uses. Indeed, arriving at a fair balance between the two objectives of achieving agreement concerning new uses and avoiding undue delay is a major challenge facing the Commission.

91. With the foregoing considerations in mind, the Special Rapporteur submits the following draft articles for the Commission's consideration.

Article 11. Notification concerning proposed uses

If a State contemplates a new use of an international watercourse which may cause appreciable harm to other States, it shall provide those States with timely notice thereof. Such notice shall be accompanied by available technical data and information that are sufficient to enable the other States to determine and evaluate the potential for harm posed by the proposed new use.

Comments

(1) Neither this article nor those that follow employ the terms "watercourse" or "system" to modify the word "State". Indeed, such a modifier may not be necessary if it is made clear in an introductory article[149] that the entire set of draft articles applies only as between States having in their territories a part or component of an international watercourse system. Of course, an adjective of this kind can be added at a later stage if the Commission's disposition of the introductory articles so requires.

(2) The term "contemplates" is intended to indicate that the new use is still in the preliminary planning stages and has not yet been authorized or permitted.

(3) The expression "new use" comprehends an addition to or alteration of an existing use, as well as new projects, programmes, etc. In short, the article is intended to require notification of any contemplated alteration in the régime of the watercourse that might entail adverse effects for another State.

(4) The Commission may find it desirable at an appropriate juncture to define in an article such expressions as "new use" and "contemplated new use".

(5) While, technically speaking, a State suffers no legal injury unless it is deprived of its equitable share, the article is couched in terms of "appreciable harm" in order to facilitate a joint determination of whether any harm entailed by the new use would be wrongful (because the new use would exceed the notifying State's equitable share) or would have to be tolerated by potentially affected States (because the new use would not exceed the notifying State's equitable share).

(6) The State contemplating the new use is to make the determination as to whether it "may cause appreciable harm to other States" on the basis of objective scientific and technical data.

(7) The term "timely" is intended to require notification sufficiently early in the planning stages to permit meaningful consultation and negotiation, if necessary.

(8) The reference to "available" technical data and information is intended to indicate that the notifying State is generally not required to conduct additional research at the request of a potentially affected State, but must only provide such relevant data and information as have been developed in relation to the proposed use and are readily accessible. (A subsequent article will cover information that need not be disclosed for national security reasons.) If a notified State desires information that is not readily available, but is in the sole possession of the notifying State, it would generally be appropriate for the former to offer to indemnify the latter for expenses incurred in producing the information.

Article 12. Period for reply to notification

1. [ALTERNATIVE A] A State providing notice of a contemplated new use under article 11 shall allow the notified States a reasonable period of time within which to study and evaluate the potential for harm entailed by the contemplated use and to communicate their determinations to the notifying State.

1. [ALTERNATIVE B] Unless otherwise agreed, a State providing notice of a contemplated new use under article 11 shall allow the notified States a reasonable period of time, which shall not be less than six months, within which to study and evaluate the potential for harm entailed by the contemplated use and to communicate their determinations to the notifying State.

2. During the period referred to in paragraph 1 of this article, the notifying State shall co-operate with the notified States by providing them, on request, with any additional data and information that are available and necessary for an accurate evaluation, and shall not initiate, or permit the initiation of, the proposed new use without the consent of the notified States.

3. If the notifying State and the notified States do not agree on what constitutes, under the circumstances, a reasonable period of time for study and evaluation, they shall negotiate in good faith with a view to agreeing upon such a period, taking into consideration all relevant factors, including the urgency of the need for the new use and the difficulty of evaluating its potential effects. The process of study and evaluation by the notified State shall proceed concurrently with the negotiations provided for in this paragraph, and such negotiations shall not unduly delay the initiation of the contemplated use or the attainment of an agreed resolution under paragraph 3 of article 13.

[149] See, for example, article 2 as provisionally adopted by the Commission in 1980 (para. 2 above) and draft article 3 as submitted by the previous Special Rapporteur in his second report, document A/CN.4/381 (see footnote 3 above), para. 34.

Comments

(1) Determination of the period of time within which the notified State is required to reply is not an easy matter. It must be a period that produces an equitable balance between the interests of the notifying and notified States in a wide variety of situations. This consideration suggests that the period should not be one that is inflexibly fixed for all cases. It may, however, be advisable to provide additional guidance to States by setting a minimum period, such as six months, within which the determination must be made and communicated.[150] The second alternative formulation of paragraph 1 (alternative B) is submitted for the Commission's consideration with the latter idea in mind.

(2) On the other hand, the standard of "a reasonable period of time", employed in alternative A of paragraph 1, may be preferable for the reason that a fixed period may be unreasonably long in some cases and unreasonably short in others. A fixed period that, in an individual case, is unreasonably long may operate to discourage the notifying State from providing notice. Conversely, a fixed, generally applicable period that is unreasonably short when applied to a concrete case may none the less raise a presumption of reasonableness which is so strong that it is very difficult for the potentially affected States to overcome. This is an issue which merits careful consideration by the Commission.

(3) The obligation to negotiate set forth in paragraph 3 is drawn by analogy from the same obligation in respect of the determination of reasonable and equitable use.[151] In both cases, the process entails a weighing of relevant considerations. Moreover, since an unduly short period may result in the initiation of a use which upsets an equitable allocation, the opportunity for meaningful study and evaluation is closely tied to both the duty to avoid causing injury and the principle of equitable utilization.

(4) Authority supporting the obligation to negotiate has been presented to the Commission on previous occasions, for example in relation to draft article 8 as submitted by Mr. Schwebel in his third report[152] and draft article 8 as submitted by the previous Special Rapporteur in his second report and referred to the Drafting Committee in 1984. Some of the authorities reviewed in the present report in relation to the obligations to cooperate and to notify concerning proposed uses also support the duty to negotiate. This is true in particular of the judgment in the *North Sea Continental Shelf* cases[153] and the arbitral award in the *Lake Lanoux* case.[154] In the latter case, the tribunal found that, under general international law, an agreement with potentially affected States was not a prerequisite to the initiation of a new use. It continued:

> . . . international practice prefers to resort to less extreme solutions, limiting itself to requiring States to seek the terms of an agreement by preliminary negotiations without making the exercise of their competence conditional on the conclusion of this agreement. . . .[155]

The tribunal went on to emphasize the reality of the obligation to negotiate in good faith and to explain that it may be enforced in the case, *inter alia*, of an unjustified breaking off of conversations, undue delay and "systematic refusal to give consideration to proposals or adverse interests, and more generally in the case of infringement of the rules of good faith".[156]

(5) The good-faith aspect of the duty to negotiate was also emphasized by the ICJ in the *North Sea Continental Shelf* cases. The Court's judgment in those cases holds interesting lessons for the field of watercourse law, requiring as it did that the parties apply equitable principles in their negotiations. In the following passages—which, the Special Rapporteur submits, are equally applicable in the context of watercourses[157]—the Court addressed the parties' obligation to negotiate with a view to arriving at an equitable apportionment of the natural resources in question:

> 85. . . .
>
> (*a*) the parties are under an obligation to enter into negotiations with a view to arriving at an agreement, and not merely to go through a formal process of negotiation as a sort of prior condition for the automatic application of a certain method of delimitation in the absence of agreement; they are under an obligation so to conduct themselves that the negotiations are meaningful, which will not be the case when either of them insists upon its own position without contemplating any modification of it;
>
> . . .
>
> 86. . . . So far as [this] rule is concerned, the Court would recall . . . that the obligation to negotiate . . . merely constitutes a special ap-

[150] See paragraph 4 of draft article 8 as submitted by Mr. Schwebel in his third report, document A/CN.4/348 (see footnote 8 (*c*) above), which provides, *inter alia*:

> "4. The proposing State . . . shall allow the other system State, unless otherwise agreed, a period of not less than six months to study and evaluate the potential for harm of the project or programme and to communicate its determination to the proposing State. . . ."

[151] Paragraph 2 of draft article 8 as submitted by the previous Special Rapporteur in his second report, document A/CN.4/381 (see footnote 3 above), para. 55, and referred to the Drafting Committee in 1984, provides:

> "2. In determining, in accordance with paragraph 1 of this article, whether a use is reasonable and equitable, the watercourse States concerned shall negotiate in a spirit of good faith and good-neighbourly relations in order to resolve the outstanding issues.
>
> "If the watercourse States concerned fail to reach agreement by negotiation within a reasonable period of time, they shall resort to the procedures for peaceful settlement provided for in chapter V of the present Convention."

[152] Document A/CN.4/348 (see footnote 8 (*c*) above), paras. 111-186. See also the discussion of the *North Sea Continental Shelf, Fisheries Jurisdiction* and *Lake Lanoux* cases in Mr. Schwebel's second report, *Yearbook . . . 1980*, vol. II (Part One), pp. 170 *et seq.*, document A/CN.4/332 and Add.1, paras. 73-89.

[153] See especially the passage from the Court's judgment cited in para. 49 (footnote 69) above.

[154] See especially the passages from the award cited in para. 48 (footnotes 65 and 66) above.

[155] See footnote 113 above.

[156] Part of the passage from the award cited in para. 48 (footnote 65) above.

[157] Specifically, the Court's statements with regard to the duty to negotiate are applicable, in the Special Rapporteur's view, to the duty to negotiate to arrive at an equitable apportionment (as set out in paragraph 2 of draft article 8 as referred to the Drafting Committee in 1984), to the duty set out in paragraph 3 of the present draft article 12, and to the duty laid down in paragraph 3 of draft article 13, presented below.

plication of a principle which underlies all international relations, and which is moreover recognized in Article 33 of the Charter of the United Nations as one of the methods for the peaceful settlement of international disputes. . . .

87. . . . Defining the content of the obligation to negotiate, the Permanent Court, in its Advisory Opinion in the case of *Railway Traffic between Lithuania and Poland*, said that the obligation was "not only to enter into negotiations but also to pursue them as far as possible with a view to concluding agreements", even if an obligation to negotiate did not imply an obligation to reach agreement (*P.C.I.J., Series A/B, No. 42*, 1931, at p. 116). . . .[158]

(6) In the *Fisheries Jurisdiction (United Kingdom* v. *Iceland)* case, the Court also emphasized the parties' obligation to negotiate concerning the apportionment of a natural resource upon which both depended. The Court first observed that "due recognition must be given to the rights of both Parties, namely the rights of the United Kingdom to fish in the waters in dispute, and the preferential rights of [the coastal State,] Iceland".[159] After declaring that "both States have an obligation to take full account of each other's rights", and referring, *inter alia*, to the principle of "equitable exploitation"[160] of the resources in question, the Court went on to explain that:

It is implicit in the concept of preferential rights that negotiations are required in order to define or delimit the extent of those rights . . .

The obligation to negotiate thus flows from the very nature of the respective rights of the Parties; to direct them to negotiate is therefore a proper exercise of the judicial function in this case. . . .[161]

(7) The Special Rapporteur submits that the process involved in both these cases—i.e. the achievement of an equitable apportionment or reasonable result through negotiations in good faith—is closely analogous to that involved in the case of watercourses. Moreover, direct support for the duty to negotiate in good faith in respect of new watercourse uses is provided by the arbitral award in the *Lake Lanoux* case,[162] as well as by a number of international instruments.[163] The set of draft articles submitted in the present report—in particular articles 12 and 13—therefore requires that, in the event of a dispute, the parties negotiate in good faith with a view to reaching a reasonable or, as the case may be, equitable result. In article 12, this obligation applies to determination of the period for reply to notification. In article 13, it applies to arriving at an accommodation of the interests of the notifying and notified States with regard to the contemplated new use.

(8) The last sentence of paragraph 3 of article 12 is designed to ensure, as far as possible, that the flexible means provided for in that paragraph for the determination of a reasonable period of study and evaluation do not themselves consume an inordinate amount of time or unduly impede other aspects of the process of accommodation.

Article 13. Reply to notification: consultation and negotiation concerning proposed uses

1. If a State notified under article 11 of a contemplated use determines that such use would, or is likely to, cause it appreciable harm, and that it would, or is likely to, result in the notifying State's depriving the notified State of its equitable share of the uses and benefits of the international watercourse, the notified State shall so inform the notifying State within the period provided for in article 12.

2. The notifying State, upon being informed by the notified State as provided in paragraph 1 of this article, is under a duty to consult with the notified State with a view to confirming or adjusting the determinations referred to in that paragraph.

3. If, under paragraph 2 of this article, the States are unable to adjust the determinations satisfactorily through consultations, they shall promptly enter into negotiations with a view to arriving at an agreement on an equitable resolution of the situation. Such a resolution may include modification of the contemplated use to eliminate the causes of harm, adjustment of other uses being made by either of the States and the provision by the proposing State of compensation, monetary or otherwise, acceptable to the notified State.

4. The negotiations provided for in paragraph 3 shall be conducted on the basis that each State must in good faith pay reasonable regard to the rights and interests of the other State.

5. If the notifying and notified States are unable to resolve any differences arising out of the application of this article through consultations or negotiations, they shall resolve such differences through the most expeditious procedures of pacific settlement available to and binding upon them or, in the absence thereof, in accordance with the dispute-settlement provisions of the present articles.

Comments

(1) It will be noted that paragraph 1 calls for the notified State to make two separate determinations in order to trigger the obligations of the notifying State under paragraph 2: (*a*) a determination that the contemplated use would, or is likely to, cause the notified State appreciable harm; and (*b*) a determination that such use would, or is likely to, result in the proposing State's depriving the notified State of its equitable share. The reason both determinations are required is that, as the Special Rapporteur explained in his second

[158] *I.C.J. Reports 1969*, pp. 47-48. The Court went on to direct the parties to enter into fresh negotiations, because those which had occurred had not satisfied the conditions laid down in the cited passage.

[159] In language which might, to a certain extent, be applied by analogy to the rights of States using the same international watercourse, the Court continued:

"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." (*I.C.J. Reports 1974*, p. 31, para. 71.)

[160] *Ibid.*, para. 72.

[161] *Ibid.*, p. 32, paras. 74-75.

[162] See para. (4) of the present commentary and the passages from the award cited in para. 48 above.

[163] See for example, the instruments already mentioned in the present section, particularly the 1923 Convention relating to the Development of Hydraulic Power Affecting more than One State, arts. 3 and 4 (para. 64 and footnote 99 above).

report,[164] the fact that one State's use of a watercourse causes another State harm does not, in itself, mean that the second State has sustained legally recognizable injury.

(2) The duty to consult provided for in paragraph 2 is supported by, *inter alia*, the authorities summarized in the present section.[165]

(3) The duty to negotiate laid down in paragraph 3 is based upon the authorities reviewed in the present section and those referred to in the comments on article 12.

(4) The requirements of paragraph 4 are based primarily upon the principles stated by the ICJ in its judgment of 25 July 1974 in the *Fisheries Jurisdiction (United Kingdom* v. *Iceland)* case,[166] and the arbitral award in the *Lake Lanoux* case.[167] The term "interests" as used in that paragraph is also drawn from the *Lake Lanoux* award, in which the tribunal required that consideration be given "to all interests, whatever their nature, which may be affected by the works undertaken, even if they do not amount to a right".[168]

(5) The expression "differences arising out of the application of this article" in paragraph 5 is intended to comprehend differences concerning such matters as (*a*) the adequacy of compliance with the terms of article 13; (*b*) the evaluation of the potential for harm of the contemplated new use, project or programme; (*c*) modifications of the notifying State's plans or of either State's existing uses; (*d*) either State's equitable share or participation.

Article 14. Effect of failure to comply with articles 11 to 13

1. If a State contemplating a new use fails to provide notice thereof to other States as required by article 11, any of those other States believing that the contemplated use may cause it appreciable harm may invoke the obligations of the former State under article 11. In the event that the States concerned do not agree upon whether the contemplated new use may cause appreciable harm to other States within the meaning of article 11, they shall promptly enter into negotiations, in the manner required by paragraphs 3 and 4 of article 13, with a view to resolving their differences. If the States concerned are unable to resolve their differences through negotiations, they shall resolve such differences through the most expeditious procedures of pacific settlement available to and binding upon them or, in the absence thereof, in accordance with the dispute-settlement provisions of the present articles.

2. If a notified State fails to reply to the notification within a reasonable period, as required by article 13, the notifying State may, subject to its obligations under article [9], proceed with the initiation of the contemplated use, in accordance with the notification and any other data and information communicated to the notified State, provided that the notifying State is in full compliance with articles 11 and 12.

3. If a State fails to provide notification of a contemplated use as required by article 11, or otherwise fails to comply with articles 11 to 13, it shall incur liability for any harm caused to other States by the new use, whether or not such harm is in violation of article [9].

Comments

(1) Paragraph 1 is intended to provide for the situation in which a State contemplating a new use fails to provide notice thereof as required by article 11. It allows another State—which may have learned indirectly and only in very general terms of the proposed new use—to invoke the proposing State's obligations under article 11 to provide detailed information concerning the plans in question.

(2) A State contemplating a new use may not have provided notice because it believed the new use would not be likely to cause appreciable harm to other States. In such a case, paragraph 1 would require the proposing State, at the request of the other States concerned, to provide full information concerning the new use, or at least to enter promptly into negotiations with those other States with a view to reaching agreement on whether appreciable harm might result from the proposed new use.

(3) Paragraph 2 would allow the notifying State to proceed with the planned new use if the notified State failed to reply within a reasonable period. However, the proposing State would remain under an obligation not to deprive other States utilizing the watercourse of their equitable shares. In other words, it could not cause them "appreciable harm", in the legal sense of the expression. The latter obligation is set forth in draft article 9 as referred to the Drafting Committee in 1984. Square brackets have been placed around the number 9, since that article has not yet been adopted by the Commission and might eventually be renumbered.

(4) Paragraph 3 is intended to encourage compliance with the notification, consultation and negotiation requirements of articles 11 to 13 by making a notifying State liable for any harm to other States resulting from the new use, even if such harm would otherwise be allowable under article [9] as being a consequence of the notifying State's equitable utilization of the watercourse. This assumes, of course, that article [9] will be reformulated to take into account the distinction between factual "harm" and legal "injury", as the Special Rapporteur recommended in his second report.[169]

Article 15. Proposed uses of utmost urgency

1. Subject to paragraphs 2 and 3 of this article, a State providing notice of a contemplated use under ar-

[164] Document A/CN.4/399 and Add.1 and 2 (see footnote 2 above), paras. 179-187.

[165] See also the leading studies by Bourne and Kirgis cited in footnote 94 above.

[166] *I.C.J. Reports 1974*, p. 33, para. 78.

[167] See especially the passages from the award cited in para. 73 (*b*), (*c*) and (*d*) above.

[168] See para. 73 (*b*) above.

[169] See footnote 164 above.

ticle 11 may, notwithstanding affirmative determinations by the notified State under paragraph 1 of article 13, proceed with the initiation of the contemplated use if the notifying State determines in good faith that the contemplated use is of the utmost urgency, due to public health, safety, or similar considerations, and provided that the notifying State makes a formal declaration to the notified State of the urgency of the contemplated use and of its intention to proceed with the initiation of that use.

2. The right of the notifying State to proceed with a contemplated new use of utmost urgency pursuant to paragraph 1 of this article is subject to the obligation of that State to comply fully with the requirements of article 11, and to engage in consultations and negotiations with the notified State, in accordance with article 13, concurrently with the implementation of its plans.

3. The notifying State shall be liable for any appreciable harm caused to the notified State by the initiation of the contemplated use under paragraph 1 of this article, except such as may be allowable under article [9].

Comments

(1) The principal object of this article is to permit the notifying State to proceed with the new use in certain extraordinary situations involving public emergencies. For example, it may be clearly necessary for the notifying State to proceed immediately with the implementation of planned protective measures in order to avoid disastrous consequences. The need for a provision of this kind is recognized in various international instruments.[170] The examples of threats to public health or safety are given in the text of article 15 in order to emphasize the gravity and exceptional nature of the circumstances envisaged.

(2) The fact that implementation of the plans is urgently necessary does not, however, relieve the notifying State of its obligations under article 11 to provide notice, information and data. If circumstances permit, a reasonable period of time should also be allowed for study and evaluation, in accordance with article 12, prior to the execution of the project. If the nature of the urgency is such that grave public health and safety consequences would ensue unless the project is implemented immediately, the processes of study and evaluation (under article 12), as well as those of consultation and notification (under article 13), are to proceed concurrently with the implementation of the project. The purpose of requiring that these processes continue, despite the fact that implementation of the project has begun, was aptly explained in an earlier report as follows:

> . . . Modifications avoiding some of or all the anticipated appreciable harm may possibly be engineered during the implementation phase; further examination of the project or programme on a joint basis may lead to the conclusion that the harm feared by the co-system State will not in fact be appreciable; compensation for any appreciable harm may be negotiated. Other system States may realize, or be made to realize, the danger and urgency, resulting in system State collaboration in appropriate circumstances.[171]

(3) The Commission may wish to consider the possibility of including in this article an additional provision requiring the notifying State to provide assurances that it would furnish full compensation for any appreciable harm resulting from the project in question.[172] Such a requirement would appear to constitute a fair condition on what otherwise amounts to a right to proceed with a new use after a unilateral determination of its urgency. The fact that paragraph 3 would make the notifying State liable for any appreciable harm caused by the exercise of this right may, in itself, constitute an insufficient assurance from the point of view of other States using the watercourse.

(4) The requirement in paragraph 1 that the proposing State make a determination of utmost urgency "in good faith" is drawn from the good-faith requirement laid down in the *Lake Lanoux* arbitral award[173] and, by analogy, from that set forth by the ICJ in the *Fisheries Jurisdiction (United Kingdom* v. *Iceland)* case.[174]

(5) As in the case of paragraph 3 of article 14, the article [9] mentioned in paragraph 3 of the present article refers to draft article 9 as referred to the Drafting Committee in 1984. The reference to that article is based on the assumption that it will be reformulated to take into account the distinction between factual "harm" and legal "injury", as recommended by the Special Rapporteur in his second report.[175]

[170] See, for example, art. 29 (last paragraph) of the 1922 Agreement for the Settlement of Questions relating to Watercourses and Dikes on the German-Danish Frontier (League of Nations, *Treaty Series*, vol. X, p. 201).

[171] Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), para. 165.

[172] See para. 7 of draft article 8 as submitted by Mr. Schwebel in his third report, *ibid.*, para. 156.

[173] See para. 73 (*c*) above.

[174] See footnote 166 above.

[175] See footnote 164 above. Virtually the same comments were made in relation to article 14 (paras. (3) and (4) of the comments on that article).

CHAPTER IV

Exchange of data and information

92. It has been seen that States require data and information relating to the physical characteristics of a watercourse as well as present and planned uses by other States in order to determine their rights and comply with their obligations under the principle of equitable utilization.[176] It has further been suggested that exchange of data and information on a regular basis will permit

[176] See the discussion in chapter II (paras. 29-37) of the relationship between procedural rules and the doctrine of equitable utilization.

States to minimize the possibility of conflicting water uses, and may even lead to the development of integrated systems of international watercourse planning and management.[177] The need for ongoing communication among the States concerned with regard to watercourse characteristics and uses was explained by Mr. Schwebel in his third report as follows:

> In addition to the technical information and data pertaining to any specific project or programme that may cause appreciable harm to another system State, there is a recognized need for exchange of broader information and data on a regular basis in order that the system States may continually analyse the conditions in the international watercourse system, formulate their plans and adjust their activities in light of the performance of the system and their knowledge of the needs of their peoples and of their economies.[178]

In his second report, Mr. Schwebel stated that:

> [Such] information . . . would be required for the success of any attempt to deal with use of international fresh water on a co-operative rather than on an adversary basis. . . .[179]

93. In this final chapter, the Special Rapporteur offers a brief introduction to the subtopic of exchange of data and information, with a view to laying the groundwork for a more detailed consideration of the subject by the Commission at its next session. This subtopic has in fact been examined in some detail by previous special rapporteurs[180] and has been discussed by the Commission[181] and by the Sixth Committee of the General Assembly.[182] This earlier discussion reveals both the need for regulation of the collection and exchange of data and information, and the fact that provisions on the subject must be sufficiently flexible to take into account the wide variety of circumstances to which they must apply.

94. The fundamental need for the exchange of information in relation to such shared natural resources as international watercourses is emphasized in article 3 of the Charter of Economic Rights and Duties of States, already cited in the present report (see para. 51 above). In requiring, *inter alia*, that States co-operate "on the basis of" a system of information, the article recognizes that it is important for States to exchange data and information for two reasons: to "achieve optimum use" of resources shared by two or more States; and to avoid causing injury to other States through the use of such resources. The principle expressed in that article is particularly fitting as regards the non-navigational uses of international watercourses, in that "there can be no effective application of legal principles to the uses of the water of an international watercourse unless there is accurate and detailed knowledge regarding that water",[183] as well as the needs and uses of other States. This is another way of saying that the elasticity of the doctrine of equitable utilization makes full information concerning basin-wide hydrological and human factors essential to the doctrine's effective implementation.

95. Recognition of the need for information and data exchange is reflected in a number of international agreements. For example, the 1964 Agreement between Poland and the USSR concerning the use of water resources in frontier waters[184] provides in article 8, paragraph 1:

Article 8

> 1. The Contracting Parties shall establish principles of co-operation governing the regular exchange of hydrological, hydrometeorological and hydrogeological information and forecasts relating to frontier waters and shall determine the scope, programmes and methods of carrying out measurements and observation and of processing their results and also the places and times at which the work is to be done.

Similarly, the 1960 Indus Waters Treaty between India and Pakistan, concluded with the participation of the World Bank,[185] provides in article VI, paragraph 1, that certain data "with respect to the flow in, and utilization of the waters of, the Rivers shall be exchanged regularly between the Parties".

96. The 1913 Convention between France and Switzerland for the development of the water power of the Rhone[186] illustrates the use of data in maintaining a proper apportionment of the benefits of a watercourse. It provides, in the last paragraph of article 5:

> For the purpose of checking the apportionment of energy, the two Governments will provide each other with all the information concerning the generation and use of energy.

97. Protocol No. 1 annexed to the 1946 Treaty between Iraq and Turkey[187] recognizes the interest of the lower riparian, Iraq, in receiving data and information from the upper riparian State. Articles 1 and 5 of the Protocol provide:

Article 1

> Iraq may, as soon as possible, send to Turkey groups of technical experts in its service to make investigations and surveys, collect hydraulic, geological and other information needed for the selection of sites for the construction of dams, observation stations and other works to be constructed on the Tigris, the Euphrates and their tributaries, and prepare the necessary plans to this end.

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[177] See especially the extracts from the studies by Ely and Wolman and by Schachter cited in paras. 35-37 above.

[178] Document A/CN.4/348 (see footnote 8 (*c*) above), para. 187.

[179] Document A/CN.4/332 and Add.1 (see footnote 152 above), para. 126.

[180] See, in particular, Mr. Schwebel's first report, document A/CN.4/320 (see footnote 76 above), paras. 111-136; and his third report, document A/CN.4/348 (see footnote 8 (*c*) above), paras. 187-242.

[181] See the Commission's report on its thirty-first session, *Yearbook . . . 1979*, vol. II (Part Two), p. 168, paras. 142-143. In fact, at its thirty-second session, the Commission referred to the Drafting Committee a draft article entitled "Collection and exchange of information" (art. 6), which the Committee was unable to consider "as it had found that the important issues raised therein could not be adequately dealt with in the short time at the Committee's disposal" (*Yearbook . . . 1980*, vol. II (Part Two), p. 108, para. 87).

[182] The comments made in the Sixth Committee are summarized in Mr. Schwebel's second report, document A/CN.4/332 and Add.1 (see footnote 152 above), paras. 128-129.

[183] *Ibid.*, para. 125.

[184] See footnote 59 above.

[185] See footnote 111 above.

[186] Convention between France and Switzerland for the development of the water power of the Rhone between the power-station planned at La Plaine and a point to be specified upstream of the Pougny-Chancy bridge, signed at Bern on 4 October 1913; entered into force on 14 June 1915 (United Nations, *Legislative Texts . . .*, p. 708, No. 197; summarized in *Yearbook . . . 1974*, vol. II (Part Two), pp. 160-161, document A/5409, paras. 842-845).

[187] Protocol relative to the regulation of the waters of the Tigris and Euphrates and of their tributaries, annexed to the Treaty of Friendship and Neighbourly Relations between Iraq and Turkey, signed at Ankara on 29 March 1946; entered into force on 10 May 1948 (see Annex II, "Asia"; summarized in *Yearbook . . . 1974*, vol. II (Part Two), pp. 97-98, document A/5409, paras. 341-346).

Article 5

Turkey shall keep Iraq informed of her plans for the construction of conservation works on either of the two rivers or their tributaries, in order that these works may as far as possible be adapted, by common agreement, to the interests of both Iraq and Turkey.

98. An example of an agreement specifically designed to ascertain the hydrological characteristics and development potential of an international river basin is the 1956 Agreement between the USSR and the People's Republic of China on joint research operations to determine the natural resources of the Amur River basin and the prospects for development of its productive potentialities and on planning and survey operations to prepare a scheme for the multi-purpose exploitation of the Argun River and the Upper Amur River.[188] Article 1 provides that "the Parties shall carry out joint research operations to determine the natural resources of the Amur River basin and the prospects for development of its productive potentialities in accordance with . . . annex 1 to this Agreement". Section 1 of annex 1 specifically provides for the physical and geographical characteristics of the Amur River basin to be surveyed, in particular the "geomorphological, climatological, hydrological, pedological, pedologico-geochemical, geobotanical, silvicultural and piscicultural conditions".

99. Provisions on the exchange of data and information are often found in instruments that create or make use of existing joint commissions or other institutional mechanisms for the management of international watercourses. In such cases, communication is facilitated not only by the fact that it takes place through an international organization, but also because in many cases information is collected and processed jointly:

In those international watercourse systems for which the system States have opted for comprehensive planning and development with an international commission or organization as their agent, the handling of information and data tends to be centralized, including joint collection and processing, rather than simply "exchanged" between or among system States. . . .[189]

One of the duties of the River Niger Commission, for example, is "to collect, evaluate and disseminate basic data on the whole of the basin" (art. 2 (*c*)).[190] Similarly, the 1971 Agreement between Finland and Sweden concerning frontier rivers[191] provides in article 3 of chapter 9:

The Frontier River Commission shall maintain continuous observation of water flow at the point where the River Tärentö . . . flows out of the River Torne. As the basis for this activity the Commission shall have the necessary studies and calculations made as soon as possible in order to determine the volume of water flowing in each of the two rivers under prevailing natural conditions.

100. The 1944 Treaty between the United States of America and Mexico relating to the utilization of the waters of the Colorado and Tijuana Rivers and of the Rio Grande (Rio Bravo)[192] requires that the International Boundary and Water Commission, United States and Mexico, collect data, as well as construct, operate and maintain gauging stations and mechanical apparatus "necessary for the purpose of making computations [relating to allotments] and of obtaining the necessary data" (art. 9 (*j*)).

101. Many other agreements contain detailed provisions concerning the collection, processing and exchange of data and information relating to international watercourses. As is true of the instruments referred to above, some of the provisions of these agreements are general and programmatic in character, while others are directed specifically to individual uses or problems. All of them, however, reflect a recognition that data and information are necessary in order to assure equitable allocations of the uses and benefits of international watercourses, and to allow integrated planning and development of fresh water resources.[193]

102. This principle has been confirmed in numerous international studies, declarations and resolutions. For example, at its Forty-eighth Conference, held in New York in 1958, the International Law Association adopted the following recommendation:

Co-riparian States should make available to the appropriate agencies of the United Nations and to one another hydrological, meteorological and economic information, particularly as to streamflow, quantity and quality of water, rain and snow fall, water tables and underground water movements.[194]

103. The first set of recommendations contained in the Mar del Plata Action Plan[195] deal with "Assessment of water resources".[196] Recommendation 3 (*j*) calls upon

[188] Signed at Beijing on 18 August 1956 and entered into force the same day (United Nations, *Legislative Texts* . . . , p. 280, No. 87; summarized in *Yearbook* . . . *1974*, vol. II (Part Two), p. 95, document A/5409, paras. 318-320).

[189] Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), para. 226, citing as examples the system agreements for the Senegal, the Niger, the Kagera, the Gambia and Lake Chad in Africa, and the lower Mekong in Asia.

[190] 1964 Agreement concerning the Niger River Commission and the Navigation and Transport on the River Niger (see Annex II, "Africa").

[191] United Nations, *Treaty Series*, vol. 825, p. 191; summarized in *Yearbook* . . . *1974*, vol. II (Part Two), pp. 319 *et seq.*, document A/CN.4/274, paras. 307-321.

[192] United Nations, *Treaty Series*, vol. 3, p. 313. See Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), para. 222.

[193] See, for example, the 1969 Agreement between Argentina and Paraguay for the regulation, channelling, dredging, buoyage and maintenance of the River Paraguay, art. IX (United Nations, *Treaty Series*, vol. 709, p. 311); the 1976 Agreement for the Protection of the Rhine against Chemical Pollution, arts. 8 and 10 (*ibid.*, vol. 1124, p. 375); the 1977 Agreement between Bangladesh and India on sharing of the Ganges waters at Farakka and on augmenting its flows, arts. II-IV (see footnote 111 above); the 1950 Exchange of Notes constituting an agreement between the United Kingdom (on behalf of Uganda) and Egypt regarding co-operation in meteorological and hydrological surveys in certain areas of the Nile Basin (United Nations, *Treaty Series*, vol. 226, p. 287; summarized in *Yearbook* . . . *1974*, vol. II (Part Two), p. 67, document A/5409, paras. 120-123); and the 1970 Exchange of Letters constituting an agreement between France and Spain amending the arrangement of 12 July 1958 relating to Lake Lanoux (United Nations, *Treaty Series*, vol. 796, p. 240).

[194] Recommendation 3 of the resolution on "The uses of the waters of international rivers", referred to as the "New York resolution"; see ILA, *Report of the Forty-eighth Conference, New York, 1958* (London, 1959), p. ix. This recommendation laid the groundwork for article XXIX, para. 1, of the Helsinki Rules (see footnote 47 above), concerning the exchange of information; but the latter provision is narrower in scope, dealing specifically with the prevention of disputes.

[195] *Report of the United Nations Water Conference* . . . (see footnote 8 (*e*) above), part one, chap. I.

[196] *Ibid.*, sect. A.

States to "co-operate in the co-ordination, collection and exchange of relevant data in the case of shared resources". Recommendation 2 explains the need for and uses of watercourse data as follows:

2. To improve the management of water resources, greater knowledge about their quantity and quality is needed. Regular and systematic collection of hydrometeorological, hydrological and hydrogeological data needs to be promoted and be accompanied by a system for processing quantitative and qualitative information for various types of water bodies. The data should be used to estimate available precipitation, surface-water and ground-water resources and the potentials for augmenting these resources. Countries should review, strengthen and co-ordinate arrangements for the collection of basic data. Network densities should be improved; mechanisms for data collection, processing and publication and arrangement for monitoring water quality should be reinforced.

The Action Plan also contains recommendations on "Regional co-operation",[197] the pertinent passages of which read as follows:

84. In the case of shared water resources, co-operative action should be taken to generate appropriate data on which future management can be based and to devise appropriate institutions and understandings for co-ordinated development.

. . .

86. . . . it is recommended that countries sharing a water resource should:

. . .

(*b*) Establish joint committees, as appropriate with agreement of the parties concerned, so as to provide for co-operation in areas such as the collection, standardization and exchange of data . . .;

. . .

(*f*) Institute action for undertaking surveys of shared water resources and monitoring their quality;

(*g*) In the absence of an agreement on the manner in which shared water resources should be utilized, countries which share these resources should exchange relevant information on which their future management can be based in order to avoid foreseeable damages;[198]

104. One of the conclusions reached at the 1981 Dakar Meeting emphasizes the importance of data and information to the rational planning and execution of water projects and programmes:

11. An adequate and reliable data base is deemed indispensable to rational planning and project and programme execution. Since data gathering, processing and dissemination for complex shared water resources systems is costly and is a continuous process, it is more than normally important that the system States agree quite specifically on the kinds of data needed for different purposes, and on the scheme for their collection. With respect to the basic hydrologic data and operational information, however, a free and ample flow on a timely basis is called for at all times.[199]

The Meeting specifically addressed the question of the gathering of data and information relating to shared ground-water resources:

6. Those co-operating States that have not yet included ground water as a part of the shared water resources system need to recognize this part of the hydrologic cycle as intimately linked to the quantity and quality of their shared surface waters, and could entrust their international river and lake organizations with the task to initiate technical studies and to call for hydrogeologic data. Concerned Governments may thus apprise themselves of the specifics of the interactions throughout the system, or portion thereof, with a view to benefiting from conjunctive use and to adopting the indicated conservation and protection measures for the underground environment.[200]

Finally, the report of the Dakar Meeting re-emphasizes the importance of joint studies and exchange of information in the summary of the discussion on the topic "Economic and other considerations":

. . . Information exchange was considered a prerequisite to basin-wide planning and to the establishment of useful co-operative arrangements for the many basin issues that arise. Joint studies, it was pointed out, could produce information fully acceptable to participating Governments, and could save time and money. Various types of exchanges were considered among basin States; between the latter and such river basin commission[s] as they may establish; and among international river basin commissions through the United Nations acting as a clearing house. Some emphasis was put on systematic, continuous exchange as distinct from sporadic efforts.[201]

105. The need for co-operation in such matters as exchanging data and information, advance notification, and consultation was also addressed by the Institute of International Law at its Athens sessions in 1979, in a resolution entitled "The pollution of rivers and lakes and international law".[202] The resolution recognizes that States have a duty to co-operate "in good faith with the other States concerned" (art. IV (*b*)), and sets forth the modalities of co-operation as follows:

Article VII

1. In carrying out their duty to co-operate, States bordering the same hydrographic basin shall, as far as practicable, especially through agreements, resort to the following ways of co-operation:

(*a*) inform co-riparian States regularly of all appropriate data on the pollution of the basin, its causes, its nature, the damage resulting from it and the preventive procedures;

(*b*) notify the States concerned in due time of any activities envisaged in their own territories which may involve the basin in a significant threat of transboundary pollution;

(*c*) promptly inform States that might be affected by a sudden increase in the level of transboundary pollution in the basin and take all appropriate steps to reduce the effects of any such increase;

(*d*) consult with each other on actual or potential problems of transboundary pollution of the basin so as to reach, by methods of their own choice, a solution consistent with the interests of the States concerned and with the protection of the environment;

(*e*) co-ordinate or pool their scientific and technical research programmes to combat pollution of the basin;

. . .

(*h*) establish harmonized, co-ordinated or unified networks for permanent observation and pollution control;

. . .

Finally, at its Sixty-second Conference, held at Seoul in 1986, the International Law Association adopted a set of "Rules on international groundwaters".[203] The relevant paragraphs of article 3 (Protection of groundwater) provide:

2. Basin States shall consult and exchange relevant available information and data at the request of any one of them:

(*a*) for the purpose of preserving the groundwaters of the basin from degradation and protecting from impairment the geologic structure of the aquifers, including recharge areas;

[197] *Ibid.*, sect. G.

[198] See also the recommendations emanating from the regional commissions in Africa, Asia and the Pacific, Europe, Latin America and Western Asia in preparation for the United Nations Water Conference (*ibid.*, annex). Particularly relevant to the present study are the recommendations concerning Africa (*ibid.*, para. 3 (*b*)) and Europe (*ibid.*, paras. 5-6).

[199] Dakar Meeting Proceedings (see footnote 8 (*d*) above), part one, para. 49, conclusion 11.

[200] *Ibid.*, conclusion 6.

[201] *Ibid.*, part one, para. 64.

[202] See footnote 89 above. See also Mr. Schwebel's third report, document A/CN.4/348 (see footnote 8 (*c*) above), para. 209.

[203] ILA, *Report of the Sixty-second Conference, Seoul, 1986* (London, 1987), pp. 251 *et seq.*

(*b*) for the purpose of considering joint or parallel quality standards and environmental protection measures applicable to international groundwaters and their aquifers.

3. Basin States shall co-operate, at the request of any one of them, for the purpose of collecting and analysing additional needed information and data pertinent to the international groundwaters or their aquifers.

106. The Declaration of Asunción on the Use of International Rivers,[204] adopted by the Ministers of Foreign Affairs of the River Plate Basin States (Argentina, Bolivia, Brazil, Paraguay and Uruguay) in 1971, records a number of "fundamental points on which agreement has already been reached", among which are the following provisions of present interest:

3. As to the exchange of hydrological and meteorological data:

(*a*) Processed data shall be disseminated and exchanged systematically through publications;

(*b*) Unprocessed data, whether in the form of observations, instrument measurements or graphs, shall be exchanged or furnished at the discretion of the countries concerned.

4. The States shall try as far as possible gradually to exchange the cartographic and hydrographic results of their measurements in the River Plate Basin in order to facilitate the task of determining the characteristics of the flow system.[205]

107. It is thus clear beyond peradventure that States require hydrological and related meteorological data and information both for their internal water planning purposes and in order to determine the extent of their equitable shares. It is also clear, however, that a State's obligation to co-operate by providing watercourse data and information to other States is not an absolute one; otherwise the obligation would apply regardless of the availability or relevance of the data, or of the cost of obtaining and processing it. The considerations that must be balanced were aptly stated by Mr. Schwebel in his third report:

. . . Failing express agreement, a system State should not be put to the expense and trouble of providing information or data that are not in fact going to be useful to the receiving system States. On the other hand, a system State should not be denied information about a shared water resource, necessary or useful to its assessments and planning, simply because it can be obtainable only from a co-system State or by joint effort. Real problems of cost and capability, as well, at times, even of national security, need to be faced in this area of international interrelationship and co-operation.

. . . The frustrations and dissatisfactions inherent in situations where perceived need [for information or data] is not reciprocal can readily be imagined. Thus the Commission's [treatment of this subtopic] must endeavour to respond to the needs of all countries and facilitate the requisite co-operation between and among system States in the interest of each individual country's economic and social development. And this must be done without imposing onerous burdens on others.[206]

108. The Special Rapporteur proposes to submit, in his next report, an article or set of articles dealing with the subtopic of exchange of data and information. An attempt will be made to reflect the practice and experience of States in this area, having regard to the importance attached to the subject by water-resource specialists, as well as to the dual considerations of, first, the need of all States for data and information, and secondly, the burdens involved for some States in collecting them. The exchange must occur on a regular basis, but States cannot be expected to provide data and information that are not reasonably available, unless they are compensated for obtaining and processing them. Somewhat more exacting requirements may apply when an international watercourse system is subject to intensive use or where the States involved have decided to develop the system as a whole, but these will usually be set out in specific agreements between the States concerned.

109. Two other points should not be forgotten. The first is the need to protect data and information that are vital to national defence or security. Exceptions for this kind of material are found in a number of international instruments. Consideration should also be given to the related matter of information that does not, strictly speaking, relate to national security, but may be classified as a "trade secret" or relate to such possibly sensitive matters as economic planning or socio-economic conditions. It is clear that any provision obligating States to furnish watercourse data and information must make appropriate allowances for material relating to national defence, and perhaps also for that falling into at least some of the other categories mentioned. The guiding principle must always be good-faith co-operation, and the Commission's task will be to determine the extent to which that principle requires the disclosure of information and what safeguards are available to States requesting it.[207]

110. The second point that must be addressed in the Commission's draft is the well-recognized duty of States to warn expeditiously of known dangers. International watercourse agreements are replete with provisions of this kind, often relating specifically to floods, ice or pollution. Whether a provision on this subject should be included among other provisions on exchange of data and information, or in another part of the draft, is a matter for the Commission's consideration.

111. These points, along with other issues relating to the exchange of data and information, will be addressed more specifically in the Special Rapporteur's next report. It is hoped that the discussion of the subtopic in the present report will introduce it to the Commission in a way that will permit a general debate on the subject at the thirty-ninth session. Such a debate would provide helpful guidance to the Special Rapporteur in preparing draft articles for the Commission's consideration at its next session.

[204] Resolution No. 25 annexed to the Act of Asunción on the use of international rivers (see footnote 74 (*d*) above).

[205] See also the provisions of the Act of Santiago of 26 June 1971 concerning hydrologic basins (see Annex I, "America").

[206] Document A/CN.4/348 (see footnote 8 (*c*) above), paras. 191-192.

[207] The Commission will be assisted in this endeavour by studies such as that carried out by the Environment Committee of OECD, "Application of information and consultation practices for preventing transfrontier pollution", especially paras. 40-42 (OECD, *Transfrontier Pollution and the Role of States* (Paris, 1981), pp. 23-24).

ANNEXES

ABBREVIATIONS

BFSP	*British and Foreign State Papers*
Ríos y Lagos	OAS, *Ríos y Lagos Internacionales (Utilización para fines agrícolas e industriales)*, 4th ed. rev. (OEA/Ser.I/VI, CIJ-75 Rev.2).
Legislative Texts	United Nations Legislative Series, *Legislative Texts and Treaty Provisions concerning the Utilization of International Rivers for Other Purposes than Navigation* (Sales No. 63.V.4).
Document A/5409	"Legal problems relating to the utilization and use of international rivers", report by the Secretary-General, reproduced in *Yearbook . . . 1974*, vol. II (Part Two), p. 33.
Document A/CN.4/274	"Legal problems relating to the non-navigational uses of international watercourses", supplementary report by the Secretary-General, reproduced in *Yearbook . . . 1974*, vol. II (Part Two), p. 265.

NOTE. The following instruments are cited as examples. They are listed in chronological order; to conserve space, the titles of some of them have been abbreviated.

ANNEX I

International agreements containing provisions concerning co-operation

AFRICA

Act regarding navigation and economic co-operation between the States of the Niger Basin (Cameroon, Ivory Coast, Dahomey, Guinea, Upper Volta, Mali, Niger, Nigeria and Chad), signed at Niamey on 26 October 1963: *art. 4* (United Nations, *Treaty Series*, vol. 587, p. 9; document A/CN.4/274, para. 42);

Convention and Statutes relating to the development of the Chad Basin (Cameroon, Chad, Niger and Nigeria), signed at Fort-Lamy on 22 May 1964: *art. 1* of the Statutes (*Official Gazette of the Federal Republic of Cameroon* (Yaoundé), vol. 4, No. 18 (15 September 1964), p. 1003; document A/CN.4/274, para. 53);

Convention relating to the status of the Senegal River, and Convention establishing the Organization for the Development of the Senegal River (Mali, Mauritania and Senegal), both signed at Nouakchott on 11 March 1972 (United Nations, *Treaties concerning the Utilization of International Watercourses for Other Purposes than Navigation: Africa*, Natural Resources/Water Series No. 13 (Sales No. E/F.84.II.A.7), pp. 16 and 21, respectively).

AMERICA

Joint Declaration of 23 September 1960 of the tripartite conference at Buenos Aires (Argentina, Brazil and Uruguay) concerning the Salto Grande works on the Uruguay River (*Ríos y Lagos*, p. 537 (in Portuguese); document A/5409, para. 267 and footnote 228);

Treaty between Canada and the United States of America relating to co-operative development of the water resources of the Columbia River Basin, signed at Washington on 17 January 1961 (United Nations, *Treaty Series*, vol. 542, p. 244; *Legislative Texts*, p. 206, No. 65; document A/5409, para. 188);

Treaty of the River Plate Basin (Argentina, Bolivia, Brazil, Paraguay and Uruguay), signed at Brasilia on 23 April 1969 (United Nations, *Treaty Series*, vol. 875, p. 3; document A/CN.4/274, para. 60), and related agreements;[a]

Act of Santiago of 26 June 1971 concerning hydrologic basins (Argentina and Chile) (*Ríos y Lagos*, pp. 495-496; document A/CN.4/274, para. 327);

Agreement on Great Lakes water quality (United States of America and Canada), signed at Ottawa on 22 November 1978: *arts. VII to X* (*United States Treaties and Other International Agreements, 1978-79*, vol. 30, part 2, p. 1383).

ASIA

Protocol relative to the regulation of the waters of the Tigris and Euphrates and of their tributaries (Protocol No. 1), annexed to the Treaty of Friendship and Neighbourly Relations between Iraq and Turkey, signed at Ankara on 29 March 1946 (United Nations, *Treaty Series*, vol. 37, p. 226; document A/5409, para. 341);

Terms of Reference of the Helmand River Delta Commission and an Interpretative Statement relative thereto, agreed by conferees of Afghanistan and Iran at Washington on 7 September 1950 (*Legislative Texts*, p. 270, No. 82; document A/5409, para. 355);

Agreement between Syria and Jordan concerning the utilization of the Yarmuk waters, signed at Damascus on 4 June 1953 (United Nations, *Treaty Series*, vol. 184, p. 15; *Legislative Texts*, p. 378, No. 105);

Statute of the Committee for Co-ordination of Investigations of the Lower Mekong Basin, established at Phnom-Penh (Cambodia) on 31 October 1957 by the Governments of Cambodia, Laos, Thailand and the Republic of Viet-Nam (*Legislative Texts*, p. 267, No. 81);[b]

Indus Waters Treaty 1960 (India, Pakistan and the World Bank), signed at Karachi on 19 September 1960: *arts. VII and VIII* (United Nations, *Treaty Series*, vol. 419, p. 125; *Legislative Texts*, p. 300, No. 98; document A/5409, para. 361 (*p*) and (*q*)).

EUROPE

Convention concerning fishing in the waters of the Danube (Romania, Bulgaria, Yugoslavia and USSR), signed at Bucharest on 29 January 1958: *art. 9* (United Nations, *Treaty Series*, vol. 339, p. 23; *Legislative Texts*, p. 427, No. 125; document A/5409, para. 445 (*b*));

Agreement between Czechoslovakia and Poland concerning the use of water resources in frontier waters, signed at Prague on 21 March 1958: *art. 4* (United Nations, *Treaty Series*, vol. 538, p. 89; document A/CN.4/274, para. 160);

[a] These agreements are cited in United Nations, *Management of International Water Resources: Institutional and Legal Aspects*, Natural Resources/Water Series No. 1 (Sales No. E.75.II.A.2), annex IV, item 14.

[b] See also "Co-operation in the Lower Mekong River Basin", paper presented by the Mekong Committee Secretariat to the United Nations Interregional Meeting of International River Organizations (Dakar, 5-14 May 1981) and published in the Proceedings of the Meeting: *Experiences in the Development and Management of International River and Lake Basins*, Natural Resources/Water Series No. 10 (United Nations publication, Sales No. E.82.II.A.17), p. 245.

Treaty between the Netherlands and the Federal Republic of Germany concerning arrangements for co-operation in the Ems Estuary (Ems-Dollard Treaty), signed at The Hague on 8 April 1960: *arts. 1 and 48* (United Nations, *Treaty Series*, vol. 509, p. 64; document A/CN.4/274, para. 165);

Convention between France and Switzerland concerning the protection of the waters of Lake Geneva against pollution, signed at Paris on 16 November 1962 (United Nations, *Treaty Series*, vol. 922, p. 49; document A/CN.4/274, para. 202);

Agreement between Bulgaria and Greece on co-operation in the utilization of the waters of the rivers crossing the two countries, signed at Athens on 9 July 1964: *art. 1* (document A/CN.4/274, para. 269);

Agreement between Poland and the USSR concerning the use of water resources in frontier waters, signed at Warsaw on 17 July 1964 (United Nations, *Treaty Series*, vol. 552, p. 175; document A/CN.4/274, para. 274);

Agreement between Bulgaria and Turkey concerning co-operation in the use of the waters of rivers flowing through the territory of both countries, signed at Istanbul on 23 October 1968 (United Nations, *Treaty Series*, vol. 807, p. 117);

See also the numerous agreements providing for the establishment of commissions or other forms of administrative machinery to promote and facilitate co-operation. Some of the most important of these administrative mechanisms are referred to in chapter II of the present report (see footnote 46 above). These and other similar arrangements are discussed, for example, in document A/CN.4/274, paras. 382-398; in the Dakar Meeting Proceedings (see footnote *b* above), part three; in *Management of International Water Resources. . .* (see footnote *a* above), annex IV; in the study by Ely and Wolman in *The Law of International Drainage Basins* (see footnote 8 (*a*) of the report), pp. 125-133; and in the study by Parnall and Utton in the *Indiana Law Journal*, vol. 51 (1976) (see footnote 35 of the report), pp. 254 *et seq.*

ANNEX II

International agreements containing provisions concerning notification and consultation

AFRICA

Convention and Statutes of 22 May 1964 relating to the development of the Chad Basin (Cameroon, Chad, Niger and Nigeria) (see Annex I): *arts. 5 and 6* of the Statutes (document A/CN.4/274, para. 55);

Agreement concerning the Niger River Commission and the navigation and transport on the River Niger (Cameroon, Ivory Coast, Dahomey, Guinea, Upper Volta, Mali, Niger, Nigeria and Chad), signed at Niamey on 25 November 1964: *art. 12* (United Nations, *Treaty Series*, vol. 587, p. 19; document A/CN.4/274, para. 59);

Convention relating to the status of the Senegal River (Mali, Mauritania and Senegal) (see Annex I): *art. 4.*

AMERICA

Treaty of territorial limits between Costa Rica and Nicaragua ("Cañas-Jerez Treaty"), signed at San José on 15 April 1858: *art. VIII* (Costa Rica, *Colección de Tratados* (San José, 1907), p. 159; trans. in C. Parry, ed., *The Consolidated Treaty Series*, vol. 118 (1857-1858) (Dobbs Ferry (N.Y.), Oceana Publications, 1969), p. 439; extracts in document A/5409, para. 1038);

Treaty between Great Britain and the United States of America relating to boundary waters, signed at Washington on 11 January 1909: *art. III* (*BFSP, 1908-1909*, vol. 102, p. 137; *Legislative Texts*, p. 260, No. 79; document A/5409, para. 160);

Exchange of Notes between Brazil and the United Kingdom constituting an agreement for the delimitation of the riverain areas of the boundary between Brazil and British Guiana (London, 27 October and 1 November 1932): *para. 1 (vi)* (League of Nations, *Treaty Series*, vol. CLXXVII, p. 127; *Legislative Texts*, p. 171, No. 47; document A/5409, para. 277);

Convention between Brazil and Uruguay regarding the determination of the legal status of the frontier between the two countries, signed at Montevideo on 20 December 1933: *art. XX* (League of Nations, *Treaty Series*, vol. CLXXXI, p. 69; *Legislative Texts*, p. 174, No. 49; document A/5409, para. 269);

Joint Declaration of 23 September 1960 of the tripartite conference at Buenos Aires (Argentina, Brazil and Uruguay) concerning the Salto Grande works on the Uruguay River (see Annex I);

Exchange of Notes between the United States of America and Mexico confirming Minute No. 242 of the International Boundary and Water Commission, United States and Mexico, relating to Colorado River salinity (Mexico City and Tlatelolco, 30 August 1973): *para. 6* of the Minute (United Nations, *Treaty Series*, vol. 915, p. 203);

Statute of the Uruguay River (Uruguay and Argentina), signed at Salto (Uruguay) on 26 February 1975: *arts. 7 to 12* (*Actos Internacionales, Uruguay-Argentina, 1830-1980* (Montevideo, 1981), p. 593).

ASIA

Protocol relative to the regulation of the waters of the Tigris and Euphrates and of their tributaries, annexed to the 1946 Treaty of Friendship and Neighbourly Relations between Iraq and Turkey (Protocol No. 1): *art. 5* (see Annex I);

Indus Waters Treaty 1960 (India, Pakistan and the World Bank): *art. VII* (see Annex I).

EUROPE

Convention between Spain and Portugal to regulate the hydroelectric development of the international section of the River Douro, signed at Lisbon on 11 August 1927: *art. 10* (League of Nations, *Treaty Series*, vol. LXXXII, p. 113; *Legislative Texts*, p. 911, No. 248; document A/5409, para. 689);

Convention between Yugoslavia and Austria concerning water economy questions relating to the Drava, signed at Geneva on 25 May 1954: *art. 4* (United Nations, *Treaty Series*, vol. 227, p. 111; *Legislative Texts*, p. 513, No. 144; document A/5409, para. 697);

Treaty of 1960 between the Netherlands and the Federal Republic of Germany concerning arrangements for co-operation in the Ems Estuary (Ems-Dollard Treaty): *arts. 22 and 23* (see Annex I);

Convention on the protection of Lake Constance against pollution (Baden-Württemberg, Bavaria, Austria and Switzerland), signed at Steckborn (Switzerland) on 27 October 1960: *art. 1* (Switzerland, *Recueil officiel des lois et des ordonnances, 1961*, vol. 2, p. 923, No. 43; *Legislative Texts*, p. 438, No. 127; document A/5409, para. 436).

GENERAL CONVENTION

Convention relating to the development of hydraulic power affecting more than one State, signed at Geneva on 9 December 1923: *art. 4* (League of Nations, *Treaty Series*, vol. XXXVI, p. 75; *Legislative Texts*, p. 91, No. 2; document A/5409, para. 73 (*c*)).