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**Legal problems relating to the non-navigational uses of international watercourses.
Supplementary report submitted by the Secretary-General pursuant to General Assembly
resolution 2669 (XXV). (Vol.I and II)**

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Supplementary report by the Secretary-General

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ABBREVIATIONS

ECAFE	Economic Commission for Asia and the Far East
ECE	Economic Commission for Europe
ECLA	Economic Commission for Latin America
FAO	Food and Agriculture Organization of the United Nations
IAEA	International Atomic Energy Agency
ICJ	International Court of Justice
OAS	Organization of American States
OAU	Organization of African Unity
UNDP	United Nations Development Programme
UNITAR	United Nations Institute for Training and Research
WHO	World Health Organization
WMO	World Meteorological Organization

Introduction

(a) *Background to this supplementary report*

1. At the fourteenth session of the General Assembly, in 1959, a proposal concerning the question of the codification of the rules relating to the utilization and use of international rivers was submitted by the representative of Bolivia to the Sixth Committee during the consideration of the report of the International Law Commission on the work of its eleventh session. In submitting his proposal, the representative of Bolivia pointed out that half the world's arable land remained unworked for lack of water, and that, with the population increasing daily, the problem demanded urgent solution; the utilization of inland waters was not governed by any international statute and the law applied was purely customary, ill-defined and lacking in uniformity; there was accordingly a pressing need to undertake a study of the question of the codification of current laws on the utilization and exploitation of international waterways.¹ On 21 November 1959, the General Assembly, on the recommendation of the Sixth Committee,² adopted resolution 1401 (XIV), which reads as follows:

The General Assembly,

Considering that it is desirable to initiate preliminary studies on the legal problems relating to the utilization and use of international rivers with a view to determining whether the subject is appropriate for codification,

¹ See *Official Records of the General Assembly, Fourteenth Session, Annexes*, agenda item 55, document A/4253, paras. 40-41.

² For a summary of the debate on the question, see the report of the Sixth Committee (*ibid.*, paras. 40-52).

Requests the Secretary-General to prepare and circulate to Member States a report containing:

(a) Information provided by Member States regarding their laws and legislation in force in the matter and, when necessary, a summary of such information;

(b) A summary of existing bilateral and multilateral treaties;

(c) A summary of decisions of international tribunals, including arbitral awards;

(d) A survey of studies made or being made by non-governmental organizations concerned with international law.

2. The report on "Legal problems relating to the utilization and use of international rivers" (A/5409),³ prepared by the Secretary-General pursuant to resolution 1401 (XIV), was published in 1963 and distributed that year to Member States in accordance with the resolution. The national legislative texts and treaty provisions referred to in the Secretary-General's report were assembled and published *in extenso* in a volume of the United Nations Legislative Series.⁴

3. By a note verbale of 24 April 1970,⁵ the Government of Finland requested the inclusion of an item entitled "Progressive development and codification of the rules of international law relating to international watercourses" on the agenda of the twenty-fifth session of the General Assembly.

³ See p. 49 above.

⁴ *Legislative texts and treaty provisions concerning the utilization of international rivers for other purposes than navigation* (United Nations publication, Sales No. 63.V.4).

⁵ *Official Records of the General Assembly, Twenty-fifth Session, Annexes*, agenda item 91, document A/7991.

On 18 September 1970, the General Assembly included the item on the agenda of the session in question, and referred it to the Sixth Committee for its consideration and report. In the explanatory memorandum attached to the note verbale, the Government of Finland stated that the United Nations should further the progressive development and codification of the rules of international law relating to international watercourses, including international drainage basins, and that the General Assembly should take the preliminary action necessary for the attainment of that goal. The explanatory memorandum also contained a number of proposals concerning the approach to be adopted. In the course of the Sixth Committee's deliberations, the question arose whether the draft resolution which would be recommended for adoption by the General Assembly should refer to studies recently undertaken by intergovernmental or non-governmental bodies. Some representatives felt that specific mention should be made of the "Helsinki Rules" adopted by the International Law Association at its fifty-second conference held at Helsinki in 1966.⁶ Others expressed the view that references should also be made to the resolution entitled "Utilization of Non-Maritime International Waters (except for navigation)", adopted at Salzburg on 11 September 1961 by the Institute of International Law.⁷ Contrary views having been expressed on the subject, the Sixth Committee finally decided to include the following passage in its report to the General Assembly:

It was agreed in the Sixth Committee that intergovernmental and non-governmental studies on the subject, especially those which are of a recent date, should be taken into account by the International Law Commission in its consideration of the topic.⁸

4. On 8 December 1970, the General Assembly, on the recommendation of the Sixth Committee,⁹ adopted resolution 2669 (XXV), entitled "Progressive development and codification of the rules of international law relating to international water courses", which reads as follows:

The General Assembly,

Recalling its resolution 1401 (XIV) of 21 November 1959, by which it considered that it was desirable to initiate preliminary studies on the legal problems relating to the utilization and use of international rivers, and as a result of which useful legal material was collected in the report submitted by the Secretary-General on 15 April 1963,

Considering that water, owing to the growth of population and the increasing and multiplying needs and demands of mankind, is of growing concern to humanity, that the available fresh water resources of the world are limited and that the preservation and protection of those resources are of great importance to all nations,

Conscious of the importance of legal problems relating to the use of international watercourses, *inter alia* with regard to international water resources development,

Recalling that despite the great number of bilateral treaties and other regional regulations, as well as the Convention on the Régime of Navigable Waterways of International Concern, signed at Barcelona on 20 April 1921, and the Convention relating to the Development of

⁶ International Law Association, *Helsinki Rules on the Uses of the Waters of International Rivers* (London, 1967). An extract from the text of the Rules is reproduced in para. 405 below.

⁷ See *Annuaire de l'Institut de droit international*, 1961 (Basle, 1961), vol. 49, tome II, p. 381. The text of the resolution is reproduced in document A/5409, para. 1076 (see p. 202 above).

⁸ *Official Records of the General Assembly, Twenty-fifth Session, Annexes*, agenda item 91, document A/8202, para. 17.

⁹ *Ibid.*, para. 18.

Hydraulic Power affecting more than one State, signed at Geneva on 9 December 1923, the use of international rivers and lakes is still based in part on general principles and rules of customary law,

Noting that measures have been taken and valuable work carried out by several international organs, both governmental and non-governmental, in order to further the development and codification of the law of international watercourses,

Convinced of the necessity to promote, in accordance with Article 13 of the Charter of the United Nations, the work on the progressive development and codification of the law of international watercourses and to concentrate this work within the framework of the United Nations,

1. *Recommends* that the International Law Commission should, as a first step, take up the study of the law of the non-navigational uses of international watercourses with a view to its progressive development and codification and, in the light of its scheduled programme of work, should consider the practicability of taking the necessary action as soon as the Commission deems it appropriate;

2. *Requests* the Secretary-General:

(a) To continue the study initiated by the General Assembly in resolution 1401 (XIV) in order to prepare a supplementary report on the legal problems relating to the utilization and use of international watercourses, taking into account the recent application in State practice and international adjudication of the law of international watercourses and also intergovernmental and non-governmental studies of this matter;

(b) To forward to the International Law Commission the records of the discussion on the item at the twenty-fifth session of the General Assembly the report prepared by the Secretary-General pursuant to resolution 1401 (XIV), as well as the text of the present resolution and all other documentation necessary for the Commission's work.

5. In accordance with the recommendation in paragraph 1 of this resolution, the International Law Commission, at its twenty-third session, in 1971, decided to include the question entitled "Non-navigational uses of international watercourses" in its general programme of work without prejudging the priority to be given in the future to its study. It considered that, for undertaking the substantive study of the rules of international law relating to non-navigational uses of international watercourses with a view to its progressive development and codification on a world-wide basis, all relevant materials on States' practice should be appropriately analysed and compiled.¹⁰

6. Pursuant to this decision by the International Law Commission, the General Assembly, in resolution 2780 (XXVI), adopted on 3 December 1971 on the recommendation of the Sixth Committee,¹¹ recommended that the International Law Commission, "in the light of its scheduled programme of work, decide upon the priority to be given to the topic of the law of the non-navigational uses of international watercourses".

7. At its twenty-fourth session, in 1972, the International Law Commission announced its intention to take up the recommendation in general when it discussed its long-term programme of work. In addition, it reached the conclusion that the problem of pollution of international waterways was of both substantial urgency and complexity. Accordingly, it requested the Secretariat to continue compiling the material relating to the topic with specific reference

¹⁰ *Yearbook . . . 1971*, vol. II (Part One) p. 350 document A/8410/Rev.1, paras. 119-122.

¹¹ For a summary of the debate on the question, see *Official Records of the General Assembly, Twenty-sixth Session, Annexes*, agenda item 88, document A/8537, paras. 142-144.

to the problems of the pollution of international watercourses.¹²

8. On the basis of the foregoing, the General Assembly, in resolution 2926 (XXVII), adopted on 28 November 1972 on the recommendation of the Sixth Committee,¹³ requested the Secretary-General to submit, as soon as possible the supplementary report on the legal problems relating to the non-navigational uses of international watercourses requested by the General Assembly in resolution 2669 (XXV), and to present to the International Law Commission at its twenty-fifth session appropriate advance information concerning the supplementary report. The Secretary-General submitted the required information to the International Law Commission at its twenty-fifth session, in 1973.¹⁴

9. At that session, the Commission considered the question of the priority to be given to the topic of the law of the non-navigational uses of international watercourses in conjunction with the review of its long-term programme of work. As indicated in its report on the work of the session, the Commission gave special attention to the question of the priority to be given to the consideration of the law of the non-navigational uses of international watercourses, in accordance with General Assembly resolution 2780 (XXVI).¹⁵ In the discussions regarding this topic, most members supported the view that it was desirable to proceed promptly with its consideration. A number emphasized the urgency of taking up the legal aspects of the problem of pollution of international watercourses and proposed that this should be the first problem to be studied. The Commission nevertheless considered that a formal decision on the commencement of work on the topic should be taken after members had had an opportunity to review the supplementary report which the Secretary-General had been requested to prepare under General Assembly resolution 2669 (XXV).

10. Having considered the observations of the Commission, the General Assembly, in resolution 3071 (XXVIII), adopted on 30 November 1973 on the recommendation of the Sixth Committee,¹⁶ recommended that the International Law Commission should at its twenty-sixth session in 1974 commence its work on the law of non-navigational uses of international watercourses by, *inter alia*, adopting preliminary measures provided for under article 16 of its statute. It also requested the Secretary-General to complete the supplementary report on the legal problems relating to the non-navigational uses of international watercourses, requested by the General Assembly in resolution 2669 (XXV), in time to submit it to the International Law Commission before the beginning of its twenty-sixth session.

¹² *Yearbook . . . 1972*, vol. II, p. 324, document A/8710/Rev.1, para. 77.

¹³ For a summary of the debate on the question, see *Official Records of the General Assembly, Twenty-seventh Session, Annexes*, agenda item 85, document A/8892, para. 193.

¹⁴ *Yearbook . . . 1973*, vol. II, p. 95, document A/CN.4/270.

¹⁵ *Ibid.*, p. 231, document A/9010/Rev.1, para. 175.

¹⁶ For a summary of the debate on this question, see *Official Records of the General Assembly, Twenty-eighth Session, Annexes*, agenda item 89, document A/9334, paras. 113-116.

(b) *Purpose, scope and plan of the report*

11. Taking into account the developments referred to above, the Secretary-General submits the present report, which is intended to supplement and bring up to date the initial report published in 1963 in accordance with General Assembly resolution 1401 (XIV). To facilitate the preparation of the supplementary report, the Secretary-General addressed to the Governments of Member States a note dated 22 November 1971, in which he requested them to provide him, not later than 1 October 1972, with additional materials regarding legislative texts and treaty provisions, as well as any other relevant information which may be useful as evidence of their practice. In a further note dated 22 September 1972, after referring to his first note, he requested them to provide him, not later than 1 July 1973, with the relevant materials and information, with specific reference to the question of the pollution of international waterways. A similar letter dated 27 December 1972 was sent to a number of intergovernmental organizations which might be interested in the topic, including bodies established pursuant to multilateral treaties on the utilization and protection of international watercourses.

12. The present report was prepared on the basis of the information provided by Member States and intergovernmental organizations as well as on the basis of the relevant research work undertaken by the Secretariat. It is divided into four parts.

13. *Part one* contains information provided by Member States regarding their laws and legislation in force in the matter. The communications received sometimes consist of an account of the current state of legislation on the subject, sometimes reproduce the text or extracts of the provisions in force, and sometimes combine the two approaches. Some of the texts cited apply to waters in general, whether international or not; others deal with specific international watercourses; still others, although general in scope, single out international waters as a separate category. The idea that water is a natural resource which should be utilized for the common good, and the quality of which should be safeguarded, emerges from many of the texts reproduced. Accordingly, several provide for the establishment of public bodies responsible for sharing existing resources among the various categories of users, and ensuring that the quality of the waters does not fall below a certain level. In that connexion, it should be noted that a concern to combat pollution is reflected in almost all the texts reproduced.

14. *Part two* deals with treaties and other relevant international instruments. It consists of two chapters: the first containing a summary of multilateral or bilateral treaties concluded on the subject and the second reproducing the text of various multilateral or bilateral acts, resolutions and declarations of States relating to international watercourses. The material included in chapter I is arranged by continent; in theory, it should comprise only treaties which are or have been in force,¹⁷ but treaties whose status was

¹⁷ The inclusion of these treaties in the present report does not imply any judgement as to their status on the part of the United Nations Secretariat.

unknown at the time when the report was completed have also been included because of their interest. The great majority of the international instruments considered in the second part concern a river or a specific watercourse; some, however, relate to a group of specific rivers; others deal with waters in general, without referring to any specific watercourse. Among the international instruments considered, some have a single purpose of a specific nature (delimitation of a boundary, control of pollution, regulation of the rights of riparian States with regard to water abstraction, construction and installation of hydroelectric works, maintenance of the river bed and shores, protection of fish, etc.); a larger number combine two or more of these specific aims, and some of them, by the variety of questions with which they deal, in fact regulate all the rights and obligations of the States concerned in all matters relating to the utilization and maintenance of the watercourse concerned; finally, others have a still wider scope, in that they do not refer to specific objectives but aim at establishing co-operation between the parties with a view to the integrated development and optimum utilization of the resources of a given river basin. For the purpose of attaining their objectives, a number of the instruments considered provide for the establishment of inter-State bodies and define their composition and functions.

15. *Part three*, unlike parts one, two and four, has no counterpart in the original report (A/5409). It relates to a type of documentation which, although not mentioned in resolution 1401 (XIV), was specifically referred to in resolution 2669 (XXV), namely, "intergovernmental . . . studies of this matter". Chapters I and II of part three

contain information on the relevant work carried out within the framework of the United Nations and related organizations. They show that the United Nations has been more concerned with water as a natural resource than with international watercourses as such: water is viewed primarily as an element which is indispensable to life, a source of wealth and a factor of economic development, and which should as such be utilized as rationally as possible and preserved from pollution; the other organizations within the United Nations system naturally approach the problem from the point of view of their respective fields of competence; nevertheless, the need to combat pollution is a matter of common concern. Chapter III covers the work of various other intergovernmental organizations, three of which are regional, while the others are bodies established pursuant to treaties relating to particular international watercourses; the desire to combat pollution is once again the foremost consideration.

16. *Part four* is devoted to the relevant work carried out by international non-governmental bodies concerned with international law.

17. The report contains no information on international adjudication, no relevant judicial decision or arbitral award having been reported by Member States or discovered in the course of the research done by the Secretariat.

18. The present report includes an annex providing a list of relevant documents published under United Nations auspices and a bibliography designed to update the information in this regard contained in the initial report.

Part One

Information provided by Member States regarding their legislation

AUSTRALIA

Note dated 26 April 1973 from the Permanent Mission to the United Nations

19. The note from the Permanent Mission states the following:

There are no international watercourses in Australia. In Papua New Guinea, on the other hand, there are rivers which intersect the border with Indonesia. One, the Fly River, for a part of its length, forms the boundary. Accordingly, the Permanent Mission has the honour to inform the Secretariat of the following.

There is no legislation of Papua New Guinea which has *specific* reference to the pollution of an international, as opposed to an intra-national, watercourse. In the former case, the ordinary domestic legislation of Papua New Guinea would apply.

The *Water Resources Ordinance* 1962-1970 prohibits interference with and pollution of a watercourse (defined to include a river or spring) and provides, by Section 8—

"(1) Subject to this Ordinance a person shall not take, use or divert water from, or obstruct, interfere with or knowingly pollute—

"(a) a water course or lake; or

"(b) underground water in an underground water control area.

" . . .

"(2) The last preceding sub-section does not apply to or in relation to any act or omission that is authorised by—

"(a) any customary rights to the use of water by natives;

"(b) a right that has, before the commencement of this Ordinance, been alienated under any other Ordinance or subordinate enactment;

"(c) a right that has been granted under this Ordinance; or

"(d) a right that is endorsed on, or evidenced by, a certificate of title issued under an Ordinance or subordinate enactment relating to real property."

Further prohibitions against the pollution or interference with watercourses where rights have been granted under the *Water Resources Ordinance* are provided under *Regulations* made under that Ordinance. The particular *Regulations* are:

"6. A person shall not cause trees, branches or debris of any kind to fall into a water source in a water control district.

" . . .

"8. Wherever a person has constructed or constructs a drain leading to a water source, that person or his successors shall take all reasonable precautions to prevent damage to that water source either by erosion, pollution, deposit of silt or other waste matter proceeding from that drain.

" . . .

"9. (1) Where the body of a dead animal lies upon a bank of, or in a water source, or in the waters of any water work to which the

Ordinance extends, the owner of that animal shall forthwith, upon the fact becoming known to him, remove the body of the animal and forthwith dispose of the body in such a manner as to prevent the pollution or the danger of pollution of that water source.

"(2) The Director of Water Resources may serve notice upon the owner of a body referred to in the sub-regulation (1) of this Regulation to remove and dispose of that body, and the owner shall comply with the notice forthwith.

".."

CANADA

A. Canadian programme to protect Great Lakes water quality

20. *Water quality problems in the Great Lakes.* Canadian programmes to protect water quality are being accelerated and strengthened to meet the commitments under the Agreement between Canada and the United States of America on Great Lakes Water Quality.¹⁸ The International Joint Commission, in its 1970 report, concluded that the pollution problems of the Great Lakes, with their adverse effects on the environment and on the millions of people who live on or near the shorelines, would become more critical unless there was vigorous and concerted implementation of remedial measures in both countries. Recognizing that further studies in several areas were required, the Commission recommended comprehensive studies of pollution problems arising from agricultural, forestry and other land-use activities, and of pollution problems in the Upper Great Lakes. The Canadian Government and the Ontario Government concluded in August 1971 an agreement which provided a basis for carrying out the major portion of Canada's anticipated obligations under the international Agreement with the United States. This agreement calls for an accelerated \$250 million programme to provide needed improvements to sewage treatment plants and trunk sewers in the Lower Great Lakes area during the five-year period ending 31 December 1975. The Canadian Government will provide a total of \$167 million in loans for these improvements. In Canada, the Federal Government makes loans available under the National Housing Act to finance two thirds of the cost of municipal sewage treatment projects and trunk sewers. In addition, the agreement provides for a \$6 million joint research programme towards better and less costly methods of nutrient removal.

21. *Canadian abatement and control programmes.* The Federal Government carries a major responsibility for the protection of water quality throughout Canada and has a special concern for the protection of the quality of boundary waters. Reflecting the high priority given by the Canadian Government to safeguard the environment, Environment Canada was formed in June 1971 to draw together all elements within the Federal Government working in the area of the environment and renewable resources. In support of its mandate for the protection of the quality of Canada's water, Environment Canada, among other programmes, is developing national regulations for the control of industrial pollution, and also carries out an

extensive programme of research, surveillance and monitoring. Environment Canada, in association with other Government departments, has developed a Federal Contingency Plan to deal with spills of oil and other hazardous polluting substances in Canada's waters. This provides the basis for the Federal Government's participation, along with Ontario and the United States, in a Joint Contingency Plan which has been established to ensure an effective international response to any major spills on the Great Lakes. During the past several years, federal environmental legislation has been strengthened and enlarged in many areas:

(a) The *Fisheries Act*, strengthened in 1970, provides for the direct control of pollution in waters frequented by fish, and is being used to set national effluent standards for industries. The Act is the basis for federal controls over losses of mercury from the chloralkali industry, for regulating effluents from pulp and paper mills, and for future regulation of effluent from other industries.

(b) The *Canada Water Act of 1970* provides a basis for co-operation with provincial governments for comprehensive water basin planning across Canada and for the management of water quality in major river basins. The Act includes provisions to limit nutrients in laundry detergents and was the basis for the regulations introduced in 1970 limiting the phosphorus content of detergents across Canada. This Act provides the basis for the Government's participation with Ontario in the joint research activities that are a part of the Canada-Ontario Agreement.

(c) The *Canada Shipping Act*, strengthened in 1971, provides a basis for measures to abate and control pollution from shipping sources, as well as for regulations to reduce the risk of spills of oil and other hazardous polluting substances from vessels.

(d) The *National Housing Act* provides long-term, low interest loans through Central Mortgage and Housing Corporation to help finance the construction of municipal sewage treatment projects.

(e) The *Pest Control Products Act* provides the main federal controls on herbicides and pesticides.

(f) The *Income Tax Act and the Excise Tax Act* have recently been amended in order to encourage greater use by industries of water and air pollution control equipment.

22. *Ontario Water Quality Control and Pollution Abatement Programmes.* The Ontario Government carries major responsibilities for the management and protection of water quality, and has developed programmes and regulatory measures under a range of provincial legislation. The planning of water quality management programmes and related pollution controls in the drainage basin of Ontario includes studies of environment response to waste inputs; the monitoring of inland streams, the near shore waters of the Great Lakes and their connecting channels; investigations of environmental systems; and studies of proposals for dredging. The new Ontario Ministry of the Environment is continuing with the development of standards for water quality and of effluent requirements for municipalities and industries in each of the drainage basins of the province, including the Great Lakes watershed. A key element in Ontario's programmes is con-

¹⁸ See below part two, chap. I, sect. B, sub-section 2.

cerned with the construction and effective operation of municipal sewage treatment facilities. In support of Canada-United States Agreement, Ontario has joined with the Government of Canada in pledging financial support for construction and improvements in municipal sewage works, including phosphorus removal in the Lower Lakes Basin by 1975. This is expected to involve provision of financial assistance by the province amounting to an estimated \$85-95 million over the period ending in 1975. Programmes, regulations and other measures to control pollution from industrial sources are administered largely by the province. These include surveillance at all sources of waste; measures to prevent accidental discharges; the development by industries of required contingency plans; industrial waste surveys; approval of design of waste treatment facilities to ensure that they will meet provincial effluent requirements; and financial assistance for the construction of waste treatment facilities. Ontario has regulations and programmes which serve to limit water pollution from agricultural, forestry and other land use activities. Further studies are under way on more effective measures to control pollution from these sources. Finally Ontario has an extensive monitoring programme that provides information on water quality throughout the province; aerial and visual surveillance activities are being maintained to direct discharges of spills of oil and other hazardous polluting substances.

B. International River Improvements Act and Regulations, 1955¹⁹

23. The Act contains the following provisions:

INTERPRETATION

2. In this Act,

"international river" means water flowing from any place in Canada to any place outside Canada;

...

"international river improvement" means a dam, obstruction, canal, reservoir or other work the purpose or effect of which is

(a) to increase, decrease or alter the natural flow of an international river, and

(b) to interfere with, alter or affect the actual or potential use of the international river outside Canada.

...

REGULATIONS

3. The Governor in Council may, for the purpose of developing and utilizing the water resources of Canada in the national interest, make regulations

(a) respecting the construction, operation and maintenance of international river improvements;

(b) respecting the issue, cancellation and suspension of licences for the construction, operation and maintenance of international river improvements;

(c) prescribing fees for licences issued under this Act; and

(d) excepting any international river improvements from the operation of this Act.

LICENCES

4. No person shall construct, operate or maintain an international river improvement unless he holds a valid licence therefor issued under this Act.

...

GENERAL

7. This Act does not apply in respect of an international river improvement

(a) constructed under the authority of an Act of the Parliament of Canada,

(b) situated within boundary waters as defined in the treaty relating to boundary waters and questions arising between Canada and the United States signed at Washington on the 11th day of January, 1909²⁰ or

(c) constructed, operated or maintained solely for domestic, sanitary or irrigation purposes or other similar consumptive uses.

...

9. Notwithstanding anything in this Act an international river improvement is subject to the same laws to which it would be subject if it were a river improvement within the legislative jurisdiction of the legislature of the province in which it is situated except in so far as such provincial laws are repugnant to this Act or the regulations.

C. Canada Water Act, 1969-1970²¹

24. Reproduced below are some provisions of this Act:

2. (1) In this Act

...

"boundary waters" means the waters from main shore to main shore of the lakes and rivers and connecting waterways, or the portions thereof, along which the international boundary between the United States and Canada passes, including all bays, arms and inlets thereof, but not including tributary waters which in their natural channels would flow into such lakes, rivers and waterways, or waters flowing from such lakes, rivers and waterways, or the waters of rivers flowing across the boundary;

...

"federal waters" means waters under the exclusive legislative jurisdiction of the Parliament of Canada;

...

"inter-jurisdictional waters" means any waters, whether international boundary or otherwise, that, whether wholly situated in a province or not, significantly affect the quantity or quality of waters outside such province;

"international waters" means water of rivers that flow across the international boundary between the United States and Canada;

"Minister" means the Minister of Energy, Mines and Resources;

...

"waste" means any substance that, if added to any waters, would degrade or alter or form part of a process of degradation or alteration of the quality of those waters to an extent that is detrimental to their use by man or by any animal, fish or plant that is useful to man, and includes any water that contains a substance in such a quantity or concentration, or that has been so treated, processed or changed, by heat or other means, from a natural state that it would, if added to any waters, degrade or alter or form part of a process of degradation or alteration of the quality of those waters to an extent that is detrimental to their use by man or by any animal, fish or plant that is useful to man;

"water quality management" means any aspect of water resource management that relates to restoring, maintaining or improving the quality of water;

"water resource management" means the conservation, development and utilization of water resources, and includes, with respect

¹⁹ See *Revised Statutes of Canada, 1970* (Ottawa, Queen's Printer for Canada, 1970), vol. IV, chap. 1-22; and SOR/56-9, *Canada Gazette*, Part II, vol. 90, No. 1, 11 January 1956, p. 14.

²⁰ See p. 72 above, document A/5409, paras. 154-167.

²¹ *Revised Statutes of Canada, 1970* (op. cit.), 1st Supplement, chap. 5.

thereto, research, data collection and the maintaining of inventories, planning and the implementation of plans, and the control and regulation of water quantity and quality.

...

PART I

COMPREHENSIVE WATER RESOURCE MANAGEMENT

Federal-Provincial Arrangements

3. For the purpose of facilitating the formulation of policies and programs with respect to the water resources of Canada and to ensure the optimum use of those resources for the benefit of all Canadians, having regard to the distinctive geography of Canada and the character of water as a natural resource, the Minister may, with the approval of the Governor in Council, enter into an arrangement with one or more provincial governments to establish, on a national, provincial, regional or lake or river-basin basis, intergovernmental committees or other bodies

(a) to maintain continuing consultation on water resource matters and to advise on priorities for research, planning, conservation, development and utilization relating thereto;

(b) to advise on the formulation of water policies and programs; and

(c) to facilitate the coordination and implementation of water policies and programs.

Comprehensive Water Resource Management Programs

4. Subject to this Act, the Minister may, with the approval of the Governor in Council, with respect to any waters where there is a significant national interest in the water resource management thereof, from time to time enter into agreements with one or more provincial governments having an interest in the water resource management of those waters, providing for programs to

(a) establish and maintain an inventory of those waters,

(b) collect, process and provide data on the quality, quantity, distribution and use of those waters,

(c) conduct research in connection with any aspect of those waters or provide for the conduct of any such research by or in cooperation with any government, institution or person,

(d) formulate comprehensive water resource management plans, including detailed estimates of the cost of implementation of those plans and of revenues and other benefits likely to be realized from the implementation thereof, based upon an examination of the full range of reasonable alternatives and taking into account views expressed at public hearings and otherwise by persons likely to be affected by implementation of the plans,

(e) design projects for the efficient conservation, development and utilization of those waters, and

(f) implement any plans or projects referred to in paragraphs (d) and (e), and establishing or naming joint commissions, boards or other bodies empowered to direct, supervise and coordinate such programs.

5. (1) Subject to subsection (2), the Minister shall, with the approval of the Governor in Council, undertake directly,

(a) with respect to any federal waters, any program described in any of paragraphs 4 (a) to (e) and the implementation of any program described in paragraph 4 (d) or (e);

(b) with respect to any inter-jurisdictional waters where there is a significant national interest in the water resource management thereof, any program described in paragraph 4 (d) or (e); and

(c) with respect to any international or boundary waters where there is a significant national interest in the water resource management thereof, any program described in paragraph 4 (d) or (e) and the implementation of any such program.

(2) The Governor in Council shall not approve the undertaking by the Minister of any program pursuant to paragraph 1 (b) or (c) unless he is satisfied that all reasonable efforts have been made by the Minister to reach an agreement under section 4 with the one or more provincial governments having an interest in the water resource management of the waters in question, and that those efforts have failed.

...

PART II

WATER QUALITY MANAGEMENT

Pollution of Waters

8. Except in quantities and under conditions prescribed with respect to waste disposal in the water quality management area in question, including the payment of any effluent discharge fee prescribed therefor, no person shall deposit or permit the deposit of waste of any type in any waters comprising a water quality management area designated pursuant to section 9 or 11, or in any place under any conditions where such waste or any other waste that results from the deposit of such waste may enter any such waters.

Federal-Provincial Water Quality Management

9. In the case of

(a) any waters, other than federal waters, the water quality management of which has become a matter of urgent national concern, or

(b) any federal waters,

the Minister may, with the approval of the Governor in Council, from time to time enter into agreements with one or more provincial governments having an interest in the water quality management thereof, designating those waters as a water quality management area, providing for water quality management programs in respect thereof and authorizing the Minister, jointly with such one or more provincial governments, to procure the incorporation of a corporation without share capital, or to name an existing corporation that is an agent of Her Majesty in right of Canada or a province or that performs any function or duty on behalf of the Government of Canada or the government of a province, as a water quality management agency to plan, initiate and carry out, in conjunction with the Minister and such provincial government or governments, programs described in section 13 in respect of those waters.

...

Federal Water Quality Management

11. (1) Where, in the case of any inter-jurisdictional waters, the water quality management of those waters has become a matter of urgent national concern, and either

(a) the Governor in Council is satisfied that all reasonable efforts have been made by the Minister to reach an agreement under section 9 with the one or more provincial governments having an interest in the water quality management thereof, and that those efforts have failed, or

(b) although an agreement was reached under section 9 in respect thereof and an agency was incorporated or named thereunder, the Minister and the appropriate minister of each provincial government that was a party to the agreement disagreed with the recommendations of the agency with respect to water quality standards for those inter-jurisdictional waters and were unable to agree on a joint recommendation with respect thereto and as a result thereof the agreement under section 9 was terminated,

the Governor in Council may, on the recommendation of the Minister, designate such waters as a water quality management area and authorize the Minister to procure the incorporation of a corporation without share capital under Part II of the *Canada Corporations Act*, or to name an existing corporation that is an agent of Her Majesty in right of Canada or that performs any function or duty on behalf of the Government of Canada, as a water quality management agency to plan, initiate and carry out programs described in section 13 in respect of those waters.

(2) The Governor in Council may, on the recommendation of the Minister, designate any federal waters as a water quality management area and authorize the Minister to procure the incorporation of a corporation without share capital under Part II of the *Canada Corporations Act*, or to name an existing corporation that is an agent of Her Majesty in right of Canada or that performs any function or duty on behalf of the Government of Canada, as a water quality management agency to plan, initiate and carry out programs described in section 13 in respect of those waters.

...

Water Quality Management Agencies

13. (1) The objects of each water quality management agency shall be to plan, initiate and carry out programs to restore, preserve and enhance the water quality level in the water quality management area for which the agency is incorporated or named and in carrying out those objects, subject to any agreement under section 9 relating to such water quality management area or to any direction of the Minister to a federal agency, the agency may, after taking into account views expressed to it, at public hearings and otherwise, by persons likely to have an interest therein, in respect of the waters comprising the water quality management area for which it is incorporated or named,

(a) ascertain the nature and quantity of waste present therein and the water quality level;

(b) undertake studies that enable forecasts to be made of the amounts and kinds of waste that are likely to be added to those waters in the future;

(c) develop and recommend to the Minister and, in the case of an agency other than a federal agency, to the appropriate minister of each provincial government that is a party to the agreement relating to the water quality management area, a water quality management plan. . . .

(3) Where a water quality management plan recommended by an agency in respect of the waters comprising the water quality management area for which it is incorporated or named has been approved by the Minister and, in the case of an agency other than a federal agency, by the appropriate minister of each provincial government that is a party to the agreement relating to those waters, the agency may, in order to implement the water quality management plan,

(a) design, construct, operate and maintain waste treatment facilities and undertake the treatment of waste delivered to such facilities;

(b) undertake the collection of any charges prescribed for waste treatment at any waste treatment facility that is operated and maintained by it and for waste sample analysis carried out by it;

(c) undertake the collection of effluent discharge fees prescribed to be payable by any person for the deposit of waste in those waters;

(d) monitor, on a regular basis, water quality levels;

(e) provide facilities for the analysis of samples of waste and collect and provide data respecting the quantity and quality of waste and the effects thereof on those waters;

(f) regularly inspect any waste treatment facilities within the water quality management area for which it is incorporated or named, whether publicly or privately owned;

(g) publish or otherwise distribute such information as may be required under this Act; and

(h) do such other things as are necessary to achieve effective water quality management of those waters.

PART III
NUTRIENTS

Interpretation

17. In this Part and Part IV,

“cleaning agent” means any laundry detergent, dishwashing compound, household cleaner, metal cleaner, degreasing compound, commercial cleaner, industrial cleaner, phosphate compound or other substance intended to be used for cleaning purposes;

“nutrient” means any substance or combination of substances that, if added to any waters in sufficient quantities, provides nourishment that promotes the growth of aquatic vegetation in those waters to such densities as to

(a) interfere with their use by man or by any animal, fish or plant that is useful to man, or

(b) degrade or alter or form part of a process of degradation or alteration of the quality of those waters to an extent that is detrimental to their use by man or by any animal, fish or plant that is useful to man;

“water conditioner” means any water softening chemical, anti-scale chemical, corrosion inhibitor or other substance intended to be used to treat water.

Use of Nutrients

18. No person shall manufacture for use or sale in Canada or import into Canada any cleaning agent or water conditioner that contains a prescribed nutrient in a concentration that is greater than the prescribed maximum permissible concentration of that nutrient in that cleaning agent or water conditioner.

...

D. Northern Inland Waters Act, 1969–1970²²

25. This Act contains the following provisions:

2. (1) In this Act

...

“waste” means

(a) any substance that, if added to any waters, would degrade or alter or form part of a process of degradation or alteration of the quality of those waters to an extent that is detrimental to their use by man or by any animal, fish or plant that is useful to man, and

(b) any water that contains a substance in such a quantity or concentration, or that has been so treated, processed or changed by heat or other means, from a natural state that it would, if added to any waters, degrade or alter or form part of a process of degradation or alteration of the quality of those waters to an extent that is detrimental to their use by man or by any animal, fish or plant that is useful to man,

and without limiting the generality of the foregoing, includes anything that, for the purposes of the *Canada Water Act*,²³ is deemed to be waste;

“water management area” means a river basin or other appropriate geographical area established as a water management area by the Governor in Council pursuant to paragraph 26 (d);

“waters” means waters in any river, stream, lake or other body of inland water on the surface or underground in the Yukon Territory and the Northwest Territories.

(2) For the purposes of this Act, diversion of waters from a water course, whether the water course is seasonal or otherwise, and obstruction of any such water course shall be deemed to constitute uses of waters.

...

WATERS VESTED IN CROWN

3. (1) Subject to any rights, powers or privileges granted pursuant to the *Dominion Water Power Act* or preserved under that Act and to section 4 of this Act, the property in and the right to the use and flow of all waters are for all purposes vested in Her Majesty in right of Canada.

(2) Except as authorized pursuant to the *Dominion Water Power Act* or subsection 39 (2) of this Act, and subject to section 4 of this Act, no person shall alter or divert the flow or storage of waters within a water management area or otherwise use waters within any such area except pursuant to a licence held by him or except as authorized by regulations made pursuant to paragraph 26 (g).

(3) Except as specifically provided in this or any other Act, neither any provision of this Act or the regulations nor any licence issued pursuant to this Act authorizes the alteration or diversion of the flow or storage of waters within a water management area or any other use of waters within any such area in contravention of any provision of any other Act or any regulation made pursuant to any other Act.

4. This Act does not apply to the use of any waters

(a) for domestic purposes by a person owning or occupying lands adjacent to such waters; or

(b) for the purpose of extinguishing a fire or, on an emergency basis, controlling or preventing a flood;

but where waters are diverted for a purpose described in paragraph (b), the diversion shall be discontinued and, in so far as possible, the

²² *Ibid.*, chap. 28.

²³ See section C above.

original channel conditions restored when the requirement for the diversion has ceased.

5. With the approval of the Governor in Council and subject to any agreement entered into pursuant to section 4 or 9 of the *Canada Water Act*, the Minister may, on behalf of the Government of Canada, enter into an agreement with any one or more provincial governments providing for the management, on a co-operative basis, of any waters situated partially within the Yukon Territory or the Northwest Territories and partially within the province or provinces or flowing between the Territory or Territories and the province or provinces.

DEPOSIT OF WASTE IN WATERS

6. (1) Except in accordance with the conditions of a licence or as authorized by the regulations, no person shall deposit or permit the deposit of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposit of such waste may enter any waters.

(2) Subsection (1) does not apply to the deposit of waste in waters that form part of a water quality management area designated pursuant to the *Canada Water Act* if the waste so deposited is of a type and quantity and is deposited under conditions authorized by regulations made by the Governor in Council under paragraph 16 (2) (a) of that Act with respect to that water quality management area.

BOARDS ESTABLISHED

7. (1) There shall be two boards to be known as the Yukon Territory Water Board and the Northwest Territories Water Board, each consisting of not less than three and not more than nine members appointed by the Minister.

...

OBJECTS AND POWERS

9. The objects of the boards are to provide for the conservation, development and utilization of the water resources of the Yukon Territory and Northwest Territories in a manner that will provide the optimum benefit therefrom for all Canadians and for the residents of the Yukon Territory and the Northwest Territories in particular.

...

E. Fisheries Act, 1970²⁴

26. This Act contains the following provisions:

INTERPRETATION

2. In this Act

...

"Minister" means the Minister of Fisheries and Forestry.

...

CONSTRUCTION OF FISHWAYS

20. (1) Every slide, dam or other obstruction across or in any stream where the Minister determines it to be necessary for the public interest that a fish-pass should exist, shall be provided by the owner or occupier with a durable and efficient fishway, or canal around the slide, dam or other obstruction. . . .

...

(2) The place, form and capacity of the fishway or canal to be constructed must be approved by the Minister before construction thereof is begun; and immediately after the fishway is completed and in operation the owner or occupier of any dam or obstruction shall make such changes and adjustments at his own cost as will in the opinion of the Minister be necessary for its efficient operation under actual working conditions, if such are found to be needed.

...

(6) Where unused slides, dams, obstructions, or anything detrimental to fish exist, and the owner or occupier thereof does not after notice given by the Minister remove the same, or if the owner is not

resident in Canada, or his exact place of residence is unknown to the Minister, the Minister may, without being liable to damages, or in any way to indemnify the said owner or occupier, cause such slide, dam, obstruction, or thing detrimental to fish life to be removed or destroyed and in cases where notice has been given to the owner or occupier, may recover from said owner or occupier the expense of so removing or destroying the same.

(7) The Minister may require the owner or occupier of any slide, dam or other obstruction to install and maintain such fish stops or diverters, both above and below any dam or obstruction as will in his opinion be adequate to prevent the destruction of fish or to assist in providing for their ascent.

(8) At every slide, dam or other obstruction, where the Minister determines it to be necessary the owner or occupier thereof shall, when required by the Minister, provide a sufficient flow of water over the spillway or crest, with connecting sluices into the river below to permit the safe and unimpeded descent of fish.

(9) The owner or occupier of any slide, dam or other obstruction shall make such provision as the Minister determines to be necessary for the free passage of both ascending and descending migratory fish, during the period of construction thereof.

(10) The owner or occupier of any slide, dam or other obstruction shall permit to escape into the river bed below the said slide, dam or other obstruction, such quantity of water, at all times, as will, in the opinion of the minister, be sufficient for the safety of fish and for the flooding of the spawning grounds to such depth as will, in the opinion of the Minister, be necessary for the safety of the ova deposited thereon.

...

INJURY TO FISHING GROUNDS AND POLLUTION OF WATERS

33. (1) No one shall throw overboard ballast, coal ashes, stones, or other prejudicial or deleterious substances in any river, harbour or roadstead, or in any water where fishing is carried on, or leave or deposit or cause to be thrown, left or deposited, upon the shore, beach or bank of any water or upon the beach between high and low water mark, remains or offal of fish, or of marine animals, or leave decayed or decaying fish in any net or other fishing apparatus; such remains or offal may be buried ashore, above high water mark.

...

(3) No person engaging in logging, lumbering, land clearing or other operations, shall put or knowingly permit to be put, any slash, stumps or other debris into any water frequented by fish or that flows into such water, or on the ice over either such water, or at a place from which it is likely to be carried into either such water.

...

F. Act to amend the Fisheries Act, 1970²⁵

27. Section 3 of this Act contains the following provisions:

3. (1) Subsection (2) of section 33 of the said Act is repealed and the following substituted therefor:

"(2) Subject to subsection (4), no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where such deleterious substance or any other deleterious substance that results from the deposit of such deleterious substance may enter any such water."

(2) Subsections (4) and (5) of section 33 of the said Act are repealed and the following substituted therefor:

"(4) Subsection (2) does not apply

"(a) to the deposit of waste of a type, in a quantity and under conditions authorized by regulations made by the Governor in Council under any other Act in any waters with respect to which those regulations are applicable, or in any place under any conditions where such waste or any other waste that results from the deposit of such waste may enter any such waters; or

²⁴ *Revised Statutes of Canada, 1970 (op. cit.)*, vol. III, chap. F-14.

²⁵ *Ibid.*, 1st Supplement, chap. 17.

(b) to the deposit of a deleterious substance of a type, in a quantity and under conditions authorized by any regulations made by the Governor in Council under this Act for the purposes of this subsection in any water with respect to which those regulations are applicable, or in any place under any conditions where such deleterious substance or any other deleterious substance that results from the deposit of such deleterious substance may enter any such water.”

FINLAND

A. Note dated 18 July 1973 from the Permanent Mission to the United Nations

28. The note from the Permanent Mission refers to “the development and co-ordination of the provisions of international law concerning international waterways”, and contains the following passages:

General observations. The main provisions on water pollution are contained in the Finnish Act on Watercourses according to which the following practices are regarded as causing pollution: discharge of dirt, waste, liquid, gas, bark or any other substance into the watercourse in such a way that they either directly or indirectly cause harmful shallowing of the watercourse, detrimental changes in the quality of water, evident damage to the fish, considerable reduction of amenities, health hazards or any other comparable infringement on public or private interests. Contamination and eutrophication can also be regarded as different stages of pollution depending on whether health, nutrient level or other aspect of the watercourse is emphasized. The main cause of pollution of the Finnish watercourses is the waste load discharge into them. The problem is more acute because of the small volume of the watercourses, their naturally high humus content and the fact that the lakes are covered by ice nearly six months of the year. . . . Research relating to water and particularly its protection is carried out by the Water Research Institute and the water districts under the National Water Board. The number of analyses is constantly increasing. In 1971, for example, more than 250,000 various analyses of water samples were made. For the monitoring of marine areas the Water Board has worked in collaboration with the Marine Research Institute. The purpose of the co-operation is to collect information on the quality of the water in the marine areas surrounding Finland and to give an account of possible changes.

Present situation in Finland. The largest and most polluted waters in Finland are found near forest product plants. Domestic sewage causes the most extensive eutrophication in the proximity of Helsinki and Turku on the coast and in the watercourses south of the city of Tampere in the inland waters. There is an extensive area of mildly polluted rivers between the coast and the lake district of Central Finland. There are several polluted stretches of 10–20 km in the coastal waters the total area of which is 600–1,000 km². As sewage spreads under the ice cover without effectively mixing into the mass of water underneath, the pollution of the coastal waters reaches its peak in the winter. About 80% of the population of coastal communities live by polluted waters. Also so-called oil spills have occurred in the Finnish coastal areas, but generally speaking the consequences have been of minor importance. Only a few specific cases have caused shore pollution and damage to bird life. The relatively high DDT and PCB content of the organisms in the Baltic Sea is due to the wide use of these chemicals mainly on the south coast of the Baltic Sea. Only a few years ago the Finnish forest products industry used mercury-containing biocides in its processing, so that some watercourses may still be contaminated by mercury. Now these chemicals are no longer used in such a way that considerable amounts would be discharged into the watercourses.

Goals of Finnish water pollution control in the 1970s. For the purpose of intensifying water pollution control in Finland during the next few years the following measures have been planned:

(a) domestic load of waterways will be reduced to half of the present level, despite the fact that the consumption of water during this period is going to double;

(b) the amount of suspended solids from the forest products industry will be reduced to one fifth and the amount of organic substances will be reduced to half of the amount in 1970;

(c) load from other industries will be reduced to half as compared to 1970.

To achieve these goals the construction of new sewage treatment plants must be speeded up, especially for the removal of nutrients and organic substances. For this purpose chemical precipitation of nutrients or both chemical and biological treatment are appropriate. In the forest products industry the capability for mechanical treatment will be increased and the process of production improved so as to minimize the waste. Mechanical treatment plants will be constructed in such a way that the change over to more effective chemical treatment can easily take place. Earlier the discharging of sewage into the sea aimed at protecting the principal inland waterways. Discharge into the sea or the inland waters after effective treatment is today considered a better solution.

Finnish legislation on water pollution. The following regulations have been issued to prevent the pollution of watercourses:

(a) *The Watercourses Act.* This Act regulates the uses of water. It contains two principles directly related to the protection of waters, namely the prohibition to change the régime of watercourses and the prohibition to pollute. Under the Act, as explained above, the discharge of dirt, waste, liquid or other such substances into the watercourses in such a way that it either directly or indirectly causes harmful lowering of the water level, changes in the quality of water, evident damage to the fish or other comparable infringements on private or public interests are considered to be polluting activities. The Watercourses Act covers all watercourses within Finnish territory including marine areas.

(b) *The Prevention of Water Pollution Act.* This Act also contains a clause on the prevention of water pollution in international waters; no waste or other substance which could directly or indirectly pollute the open sea or the territorial waters of another country is to be discharged from a Finnish vessel or from Finnish territory. Separate laws govern the dumping of radioactive waste into the sea.

(c) *The Act on Measures to Be Taken to Prevent Oil Damage.* The act prohibits the dumping of oil or oil-containing substances into Finnish territorial waters. The prohibition also covers certain Finnish vessels in areas outside the Finnish territorial waters, which have been classified as prohibited areas in the appropriate amendments to the International Convention [for the Prevention of Pollution of the Sea by Oil, 1954].²⁶

Water administration in Finland. The National Water Board, as a central office subordinated to the Ministry of Forestry and Agriculture, is responsible for the water administration in Finland. Its tasks comprise *inter alia* promoting the use, care and research of watercourses and marine areas, supervising the waters and their use and preventing damage. For district administration, the country has been divided into water districts.

Procedure in matters concerning water. There are three Water Courts in Finland acting as special lowest courts in water cases. The Water Courts may grant an exceptional permit overriding the above water pollution prohibition. An unconditional prerequisite to granting the permit is that the activity for which it is applied will not imply health hazards or considerable and extensive harmful changes in the natural conditions of the environment or greatly lower local residential or industrial conditions. Another prerequisite is that the damage caused by the activity in question be relatively small as compared to the advantages obtained, and that eliminating the water-polluting substance or avoiding its discharge into the watercourses prove possible at a reasonable cost. The Water Courts may, when granting a permit, require that the applicant take the necessary measures to minimize the damages. The decision of the Water Court shall also include clauses relative to compensation. A decree stipulates further that no industrial or other plant specified by it, such as an atomic reactor, a refinery for waste oil or a serobacteriological plant, whether or not it entails the results stated in chapter 1, paras. 19–21 of the Watercourses Act may be constructed without due measures to prevent water pollution. As regards other factories and plants specified by the Act, prior noti-

²⁶ United Nations, *Treaty Series*, vol. 327, p. 3, and vol. 600, p. 332.

fication must be made to the water administration authorities which may order measures to be taken.

Government support for prevention of water pollution. Subsidies or low-interest loans may be granted from the State funds for the building of such equipment or constructions which are necessary for the treatment of water. Water protection work may also be carried out by the State for the purpose of preventing the pollution of waters, maintaining or improving the self-purification capacity of watercourses or restoring the state of watercourses.

B. Note dated 18 December 1973 from the Permanent Mission to the United Nations

29. The note contains additional information as follows:

Finland has found it important to settle matters pertaining to frontier watercourses with all neighbouring countries. Agreements previously made, rather narrow in their scope, have been replaced by new ones with a wider sphere of application. In 1964 Finland entered into an Agreement with the Soviet Union concerning frontier watercourses²⁷ and in 1971 it concluded an Agreement with Sweden concerning the frontier rivers between Finland and Sweden.²⁸ In both Agreements the principles expressed in the so-called Helsinki Rules of the International Law Association²⁹ were applied. In 1972, the Agreement between Finland and Norway on Fishing Regulations on the Tenjoki River and its Annexes were renewed. To supplement the above Agreements some new agreements are in preparation.

The 1964 Agreement between Finland and the Union of Soviet Socialist Republics concerning frontier watercourses. To deal with matters mentioned in the Agreement, a Finnish-Soviet Commission on the Utilization of Frontier Watercourses was set up. Its tasks comprise *inter alia* the monitoring of the frontier watercourses. A 1966 resolution provides detailed instructions on the subject in the form of Regulations concerning the Monitoring of the Quality of the Frontier Watercourses. These have later been revised according to need. The taking and examining of water samples as well as the determination of the flow in waters designated by the Commission are carried out on the initiative and at the expense of both parties which act simultaneously according to a procedure jointly agreed upon. Each party has appointed an Inspector for the Quality of Water who directs the research and to whom the results obtained have to be presented within two months. The Inspectors consider the information and prepare a joint report to be presented to the Commission. When the monitoring of the frontier watercourses between Finland and the USSR started in 1966, there were in all nine watercourses to be monitored, each having one observation spot on either side of the border. In 1973 this figure had been reduced to four. The number of diagnoses made from water samples taken from the observation spot at a fixed date has varied between 18 and 21. According to the records of the Commission the monitoring has run very smoothly and served its purpose. The authority in charge of the research required for the above activities is the National Water Board.

The 1971 Frontier Rivers Agreement between Finland and Sweden. The purpose of this Agreement was to ensure that the frontier watercourses, i.e., the parts of the Kõnkämä, Muonio and Torne Rivers and their tributaries forming the border between the two countries should be preserved and used in such a manner as to promote as effectively as possible the interests of both States. For the purpose of applying the Agreement the two States have set up a joint permanent commission (The Finnish-Swedish Frontier Rivers Commission). Under the Frontier Rivers Agreement, which constitutes a detailed regional chart on waters, the Frontier Rivers Commission, together with the appropriate authorities of both States, is responsible for monitoring and watching the condition and use of the watercourses within its jurisdiction. Water monitoring comparable to that which exists between Finland and the USSR has not yet been established between Finland and Sweden, although the Agreement allows for it

to a large extent, especially as the legislative systems of the two countries are fairly similar. It is worth noting, however, that on the initiative of the Finnish water authorities, the condition and quality of the watercourses have been under continuous observation since 1962.

Support given by Finland to the work done by non-governmental organizations concerned with international law. The Government of Finland has also been trying to support the work of non-governmental bodies in developing international water law, i.e. by paying the expenses of the International Law Association Committee on International Water Resources Law since 1967. As the International Law Commission of the United Nations, according to a resolution of the General Assembly, is to take into consideration preliminary proposals by non-governmental bodies, the work of the said Committee serves the goals of the United Nations.

FRANCE

Act No. 64-1245 of 16 December 1964 on the administration and classification of waters and the control of water pollution^{30, 31}

30. This Act contains the following provisions:

PART I

CONTROL OF WATER POLLUTION AND RESTORATION OF THE PURITY OF WATERS

Article 1. The purpose of the provisions of this part is to control water pollution and to restore the purity of waters with a view to satisfying and reconciling the requirements of the following:

Public drinking water supply and public health:

Agriculture, industry, transport and all other human activities of value to society;

The flora and fauna (particularly fish) in deposit areas, the use of water for recreational purposes and water sports, and the protection of sites of natural beauty;

The conservation and the outflow of water.

The provisions of this part shall apply to direct and indirect discharge, drainage, disposal and deposit of waste matter of any kind, and more generally to anything liable to cause or increase a deterioration in the quality of waters, including surface waters, groundwaters, and maritime territorial waters, by changing their physical, chemical, biological or bacteriological characteristics.

Article 2. The immersion and discharge of matter of any kind into the sea shall be prohibited; this shall apply in particular to industrial and nuclear waste liable to be harmful to public health and underwater fauna and flora or to endanger the economic and tourist development of coastal regions. The Prefect shall determine the period after which this prohibition shall apply to existing discharges.

The Prefect shall, however, be empowered, after a public inquiry, to authorize and regulate the discharge and immersion mentioned in the preceding paragraph, in cases where these may be effected under conditions such that their harmlessness, and the absence of any sanitary nuisance resulting from them, can be guaranteed.

Article 3. Within two years from the date of promulgation of this Act, an inventory shall be made of all surface waters, including watercourses, canals, lakes, and ponds, whether under public ownership or not, establishing their degree of pollution.

...

The following shall also be laid down by decree: firstly, the technical specifications and physical, chemical, biological and bacteriological criteria which shall be satisfied by watercourses, reaches of watercourses, canals, lakes or ponds, in particular when used as sources

²⁷ See paras. 257-264 below.

²⁸ See paras. 307-321 below.

²⁹ See foot-note 6 above.

³⁰ France, *Journal officiel de la République française, Lois et décrets* (Paris), 18 December 1964, 96th year, No. 295, p. 11258.

³¹ In its note of 12 February 1973, the Permanent Mission of France to the United Nations states that "in general, French legislation on the protection of fresh water against pollution (Act of 16 December 1964) extends to international watercourses".

of public water supply; and, secondly, the period within which the quality of each deposit area shall be improved so as to satisfy or reconcile the interests listed in article 1.

Article 4. The owners of outlets for discharges which were in existence before the publication of the decree, provided for in the [last] paragraph of article 3, prescribing the improvement of the quality of any body of surface water, shall be obliged to take all the measures necessary, within the period laid down in the said decree, to satisfy the requirements to be met by the effluents which they discharge, under article 6, in order that the deposit areas may possess the prescribed characteristics when this period had expired. Such measures shall be without prejudice to the obligations devolving upon the said owners under existing legislation.

Outlets for discharges installed after the publication of the decree requiring the improvement of water quality shall, from the time when they are put into service, discharge effluents in the manner laid down in article 6.

Article 5. Drawing off of water and discharges from installations constructed after the publication of the decree on the general inventory, shall be subject to the following:

prior approval by the Prefect of the technical plans for the purification plants concerned;

an authorization by the Prefect to put purification plants into operation after their construction in the manner laid down in the approved technical plans.

Article 6. The following shall be determined by decree of the Council of State:

(1) The conditions for regulating or prohibiting, in the light of articles 2, 3 and 4 above, direct and indirect discharges, drainage, disposal and deposit of water or matter and, in general, of anything capable of impairing the quality of surface water, groundwater or maritime territorial seawater within limits;

(2) The conditions for regulating the offer for sale and distribution of certain products capable of causing discharges prohibited or regulated under subparagraph (1) above, or of increasing the harmfulness or sanitary nuisance of such discharges;

(3) The conditions for testing the physical, chemical, biological and bacteriological characteristics of deposit areas and discharges and in particular the conditions for taking and analysing samples;

(4) The events and circumstances in which the administration shall be empowered to take immediate steps to remedy any situation which may be a danger to public safety or health.

Decrees shall be issued as required establishing for every watercourse, reaches of watercourses, canals, lakes or ponds, groundwaters and maritime territorial waters, the particular conditions in which the provisions laid down above shall apply, as well as the time-limits within which these provisions shall be obeyed, with respect to existing plants.

In no circumstances shall the rights of third parties with respect to the persons responsible for pollution be prejudiced.

Article 7. Article L. 20 of the Public Health Code shall be replaced by the following provisions:

“Article L. 20. In order to ensure the protection of water quality, the notice declaring works for the catchment of water intended for public water supply to be in the public interest shall provide for the establishment round the source of water of: a primary protection zone in which the land shall be bought outright; a secondary protection zone within which all activities and all storage facilities or plants capable of reducing, whether directly or indirectly, the quality of the water may be prohibited or regulated; and, if necessary, an outer protection zone, within which the activities, plants and storage facilities mentioned above may be regulated.”

“ . . . ”

Article 15. A National Water Committee is hereby established; it shall be responsible to the Prime Minister and shall be made up equally of:

- (1) Representatives of the various classes of users;
- (2) Representatives of the departmental and municipal councils;
- (3) Representatives of the State.

This Committee shall have the following duties:

(1) Giving advice on the regions to be included in the river basins or groups of river basins, for which the committees referred to in article 13 are to be responsible;

(2) Giving advice on all national plans for the development of water resources and water distribution, and on all major regional plans of this kind;

(3) Giving advice on all problems common to two or more river basin committees or agencies;

(4) In general, assembling the necessary information and giving advice on all matters dealt with in this Act.

...

PART II

ADMINISTRATION AND CLASSIFICATION OF WATERS

Chapter I

WATERCOURSES

Section 1—Privately owned watercourses

Article 24. Article 104 of the Rural Code is hereby replaced by the following provisions:

“Article 104. The general provisions governing privately owned watercourses shall, when necessary, be laid down in such a manner as to reconcile the interests of the various classes of users with the respect due to property and other existing rights and uses; this shall be done after public inquiry by order of the Minister responsible for the watercourse or section thereof.”

Article 25. Traffic of powered craft on any privately owned watercourse or section thereof may be prohibited or regulated by prefectoral order on the advice of the service responsible for maintaining law and order on that watercourse, for reasons of either safety or health, or at the request of the riparian owner, when such traffic seriously disturbs him in the enjoyment of his rights.

Article 26. An article 97-1 is hereby added to the Rural Code, reading as follows:

“Article 97-1. When improvement works other than those allowed or authorized under the Act of 16 October 1919 affect a river basin or watercourse, and their purpose and consequence is to regularize the flow of the privately owned watercourse or to increase its flow at periods of low water level, the notice declaring such works to be in the public interest may allocate a part of the flow of the said watercourse for certain uses throughout the year.

“For this purpose, the said notice shall establish:

“(a) A minimum flow called the ‘reserve flow’, to be maintained on the river downstream from the improvement works for each of the different periods of the year, to safeguard the general interests and satisfy the needs of the beneficiaries of authorized diversions and also the interests of persons holding property along the river or watercourse.

“Persons controlling the flow shall be required to ensure that the ‘reserve flow’ shall be sent on downstream and this may not exceed the natural flow of the watercourse upstream of the improvement works, for each of the periods considered;

“(b) An additional flow called the ‘allocated flow’ established in relation to the amounts of water available in the reservoirs of the works at the same periods.

“Notwithstanding the provisions of article 644 of the Civil Code, the right to use of the allocated flow shall be reserved to the State.

“A decree issued by the Council of State shall lay down the conditions for the application of this article and in particular the conditions for the transfer of the rights hereby granted to the State.”

...

Chapter II

GROUND WATER, AND EASEMENTS FOR THE PIPING OF WATER ACROSS LAND BELONGING TO OTHER PERSONS (SERVITUDE DE PASSAGE DES EAUX UTILES)

Article 40. Any plant for drawing off ground waters other than for domestic purposes shall be brought to the attention of the administration, which shall be responsible for its supervision, in such manner as

shall be laid down by decree of the Council of State. The decree shall determine the flow rate at and above which these provisions shall apply. All discharge or introduction of effluents or wastes of any kind into disused wells, bore-holes or catchment tunnels shall be prohibited. Notification shall be given of disused wells, bore-holes and catchment tunnels and these shall, without prejudice to the rights of third parties, be subject to supervision by the administration.

...

Article 45. I. Article 123 of the Rural Code is hereby replaced by the following:

"123. Any physical or legal person who wishes to use water, of which he has the right to dispose, for drinking water supply, irrigation or more generally for his farm, may obtain permission to have such water distributed by the underground pipe underneath intermediary properties in the most rational manner that will not cause damage to the present or future working of the properties concerned, and this against preliminary and fair compensation.

"Houses shall in all cases be free from this easement.

"Courtyards and gardens adjacent to houses shall also be excepted."

II. Article 124 of the Rural Code is hereby supplemented as follows:

"Used waters from houses and farms supplied in application of article 123 of the Rural Code may be discharged by underground drains to sewage disposal plants in the same conditions and with the same reservations as set forth in article 123 dealing with the supply of water."

Chapter III

SPECIAL WATER PLANNING ZONES

Article 46. Special water planning zones shall be established by decree of the Council of State after a public inquiry has been held; these decrees shall draw up, and declare to be in the public interest, plans for the distribution of the water resources of the zone concerned, according to the character and location of the requirements to be satisfied, and shall designate the watercourses, springs, bodies of groundwater, lakes or ponds, included in the zone, to which the provisions of articles 47 to 50 shall be applicable.

...

Article 47. Any diversion, catchment or sinking of wells in connection with the waters shown in any decrees issued under article 46 and, in general, any works liable to change the characteristics or flow of such waters shall be subject, after the entry into force of these decrees, to administrative authorization.

...

Article 48. Within a special water planning zone, all owners or operators of diversion, catchment and withdrawal plants, or in general of any plant capable of changing the condition or flow characteristics of the waters of a lake, pond, spring or body of groundwater, shall be required to report their plants.

...

MEXICO

A. Article 27 of the Constitution

31. The article reads as follows:

Article 27. Ownership of the lands and waters within the boundaries of the national territory is vested originally in the Nation, which has had, and has, the right to transmit title thereof to private persons, thereby constituting private property.

...

In the Nation is likewise vested the ownership of the waters of the territorial seas, within the limits and terms fixed by international law, inland marine waters; those of lagoons and estuaries permanently or intermittently connected with the sea; those of natural, inland lakes which are directly connected with streams having a constant flow; those of rivers and their direct or indirect tributaries from the point

in their course where the first permanent, intermittent, or torrential waters begin, to their mouth in the sea, or a lake, lagoon, or estuary forming a part of the public domain; those of constant or intermittent streams and their direct or indirect tributaries, whenever the bed of the stream, throughout the whole or a part of its length, serves as a boundary of the national territory or of two federal divisions, or if it flows from one federal division to another or crosses the boundary lines of the Republic; those of lakes, lagoons or estuaries whose basins, zones, or shores are crossed by the boundary lines of two or more divisions or by the boundary line of the Republic and a neighbouring country or when the shoreline serves as the boundary between two federal divisions or of the Republic and a neighbouring country; those of springs that issue from beaches, maritime areas, the beds, basins, or shores of lakes, lagoons, or estuaries in the national domain; and waters extracted from mines and the channels, beds, or shores of interior lakes and streams to the extent fixed by law. Ground water may be freely brought to the surface by artificial means and utilized by the surface owner, but if the public interest so requires or utilization for other purposes is affected, the Federal Executive may regulate its extraction and utilization, and even establish prohibited areas, as may be done with other waters in the public domain. Any other waters not included in the foregoing enumeration shall be considered an integral part of the property through which they flow or in which they are deposited, but if they are located in two or more properties, their utilization shall be deemed a matter of public use, and shall be subject to laws enacted by the States.³²

B. Federal Water Act, 1972

32. This Act contains the following provisions:

TITLE I

GENERAL PROVISIONS

Chapter I

PURPOSE OF THE ACT

Article 1. With a view to ensuring the equitable distribution and the conservation of water resources, this Act shall give effect to the provisions, with regard to water, of the fifth and sixth paragraphs of article 27 of the Political Constitution of the United Mexican States, and its purpose shall be to regulate the development, use and utilization of nationally-owned waters, including groundwater freely brought to the surface by artificial means, in order that the extraction and utilization thereof and temporary restrictions thereon shall be regulated in a manner consistent with the public interest.

Article 2. The following are declared to be of public utility:

- I. Establishment and the maintenance on a current basis of an inventory of the country's water resources;
- II. Surveys and works projects required for the formulation of plans for hydraulic works;
- III. Irrigation, drainage, reclamation and torrent-control works and works for the protection of population centres and farm land against flooding;
- IV. Infiltration works to conserve and replenish aquifers;
- V. Diversion of water from one watershed or hydrographic basin to another;
- VI. Works and installations for the provision of drinking water, and sewage systems;
- VII. Use of nationally-owned waters to generate electric power for public services;
- VIII. Regulation of the distribution of nationally-owned waters, including limitations on and close periods for the extraction of ground water;

³² The above paragraph (para. V of article 27), is the result of two successive amendments, by decrees dated respectively 15 January 1945 (United Mexican States, *Diario Oficial*, vol. CXLIX, No. 45 (21 April 1945), p. 1) and 6 January 1960 (*ibid.*, vol. CCXXXVIII, No. 16 (20 January 1960), p. 2).

IX. Protection, improvement and conservation of watersheds, beds of watercourses, basins and aquifers;

X. Development, use or utilization of the waters of nationally-owned reservoirs and other nationally-owned bodies of standing water, however formed;

XI. Water-related works for the preservation and improvement of the ecological conditions conducive to the development of aquatic fauna and flora in streams, lakes, lagoons, basins and estuaries;

XII. Establishment of irrigation districts, irrigation units for rural development, drainage and flood-control districts and aquaculture districts;

XIII. Consolidation of public, communal and privately-owned land in irrigation districts to ensure the more efficient and equitable use of water;

XIV. Hydraulic works that will foster the formation, conservation and improvement in quality of soil for agricultural use;

XV. Establishment, review, modification and operation of registers of users;

XVI. Acquisition of land and other immovable property required to establish irrigation, drainage or protection zones;

XVII. Establishment of villages and the execution of works to provide them with public services in cases where population centres are affected by hydraulic works;

XVIII. Utilization of quarries, standing waters and deposits of materials for hydraulic and ancillary works;

XIX. Acquisition of privately-owned hydraulic works when it is necessary to incorporate them into an existing or future general water system;

XX. Installation of desalination plants for the treatment of sea-water and inland brackish waters;

XXI. Prevention and control of water pollution, irrespective of the applicable legal régime, in accordance with the Federal Act for the Prevention and Control of Environmental Pollution and other relevant legislation; and

XXII. Acquisition of property required for the construction, rehabilitation, improvement, operation, conservation and development of the hydraulic works and ancillary installations referred to in this Act, and the construction of access roads required for the development and use thereof.

...

Article 4. For the purposes of this Act:

I. The term "Ministry" means the Ministry of Water Resources;

...

Chapter II

THE LEGAL REGIME GOVERNING THE RESOURCES COVERED BY THIS ACT

Article 5. The following waters are deemed to be the property of the Nations:

I. The waters of the territorial sea within the scope and terms of international law;

II. Inland maritime waters;

III. The waters of lagoons and estuaries communicating permanently or at intervals with the sea;

IV. The waters of inland natural lakes directly linked with permanent watercourses;

V. The waters of rivers and their direct or indirect tributaries, from the point in the bed where the first perennial, intermittent or torrential stream begins to its outlet into the sea of a nationally-owned lake, lagoon or estuary;

VI. The waters of perennial or intermittent streams and their direct or indirect tributaries, when the bed of such a stream serves in whole or in part as the national frontier or a boundary between two federal subdivisions, or when it passes from one federal subdivision to another or crosses the boundary line of the Republic;

VII. The waters of lakes, lagoons or estuaries whose basins, zones or shores are crossed by the boundary line between two or more subdivisions or between the Republic and a neighbouring country, or whose shoreline serves as a boundary between two federal subdivisions or between the Republic and a neighbouring country;

VIII. The waters of springs which rise along the sea-shore, in maritime zones, in the beds of nationally-owned streams or in the basins or on the shores of nationally-owned lakes, lagoons or estuaries;

IX. Water extracted from mines;

X. Waters belonging to the Nation by virtue of international treaties; and

XI. Ground water.

Article 6. The following are also deemed to be the property of the Nation:

I. The sea-shore and terrestrial maritime zones;

II. Land occupied by the basins of nationally-owned lakes, lagoons or estuaries or of nationally-owned impounded or standing waters;

III. The beds of nationally-owned streams;

IV. The federal zones contiguous to the beds of nationally-owned streams or to nationally-owned basins or standing waters and consisting of a strip of land 10 metres wide, or 5 metres when the width of the bed is five metres or less;

V. Land reclaimed from the sea or nationally-owned estuaries, by natural causes or by man-made works;

VI. Land underlying the beds of nationally-owned streams or the basins of nationally-owned lakes, lagoons or estuaries which is exposed by natural causes or man-made works;

VII. Islands which exist or are formed in the territorial sea, in the basins of nationally-owned lakes, lagoons, estuaries or bodies of impounded or standing waters, or on the beds of nationally-owned streams, except those which are formed when a stream isolates private, public or communally-owned land;

VIII. Dams, dikes and the basins of their captive waters, canals, drains, levees, ditches and other water-related works for the development, use, utilization and management of national waters, together with the relevant protection zones to the extent determined in each case by the Ministry; and

IX. Aquatic flora and fauna, substances and other matter contained in nationally-owned waters.

Article 7. Control over the extraction and use of groundwater, including that freely brought to the surface, is declared to be in the public interest in conformity with the regulations to that effect made by the Federal Executive.

Article 8. Residual waters resulting from use of the waters referred to in article 5 of this Act shall be nationally owned.

Article 9. The nation's ownership of the resources referred to in articles 5, 6, 7 and 8 shall be inalienable and imprescriptible.

Article 10. The system of national ownership of the waters referred to in articles 5 and 8 shall subsist even where, by reason of the construction of works, such waters are diverted from the original bed or basin for the purposes of their exploitation, use or appropriation, or if the affluents of the said waters are impeded, or the said waters are subject to treatment.

Article 11. Where, owing to natural causes, a definitive change takes place in the course of a nationally-owned stream, the ownership of the new bed and of its federal zone shall, *ipso facto* pass to the Nation, and, if the abandoned bed is not needed for agricultural purposes, the riparian owners may acquire up to half of the said bed adjacent to the frontage of their property, or, if there is no riparian owner on the other side having an interest, therein the entire bed.

Article 12. Where, owing to natural causes, a nationally-owned lake, lagoon or estuary definitively changes level and invades the land, the land affected, the federal zone and the terrestrial maritime zone concerned shall be transferred to the public domain of the Federation. If the change causes land to be exposed, such land shall, by decree, be transferred from the public to the private domain of the Federation.

Article 13. Where, owing to natural causes, a nationally-owned lake, lagoon, estuary or stream tends to change its basin or bed, the owners of the bordering land shall have the right to build the necessary protective works. In the case of a lasting change, they shall have the right to build corrective works within one year from the date on which the change took place.

In both cases, for the works to be constructed, the plans and projects must have the prior approval of the Ministry and, where appropriate, of the Ministry of Marine.

Article 14. Land reclaimed through man-made works, by channelling a stream or by partially or totally limiting or draining a nationally-owned basin, shall, by a decree, be transferred from the public to the private domain of the Federation. The channelling or limitation works shall be regarded as an integral part of the beds and basins concerned and, as such, subject to the public domain of the Federation.

Article 15. In the public interest, the Federal Executive, through the Ministry, may, by means of a declaration, reduce or eliminate the federal zone of nationally-owned streams, lakes and lagoons, only in the parts falling within the boundaries of population centres.

The land which constituted the federal zones shall be transferred to the private domain of the Federation.

...

TITLE II

EXPLOITATION, USE OR APPROPRIATION OF WATERS

Chapter I

GENERAL PROVISIONS

Article 19. The use and utilization of nationally-owned waters by manual methods for domestic and livestock-watering purposes shall be free, provided that water is not diverted from its channel.

Article 20. The Ministry may conclude agreements with the States, the Federal District, federal territories, municipalities and public, communal or private landholders with a view to the construction of works for the development, use or utilization of waters, regardless of the legal régime applicable to them. In cases concerning the use and utilization of waters for navigation or works or services relating to navigation, such agreements shall be concluded by the Ministry of the Marine, and in cases where the utilization of fisheries resources is concerned, the Ministry shall co-ordinate its activities with the Ministry of Industry and Trade.

Article 21. Decentralized agencies, mixed enterprises, other institutions in the public sector, the Federal District, federal territories, states and municipalities may develop, use or utilize nationally-owned waters, subject to their prior allocation by the Federal Executive acting through the Ministry, which shall also have power to review and approve projects and the construction of works, as well as the distribution of water.

Article 22. Individuals and companies established under Mexican law may develop, use or utilize nationally-owned waters by virtue of concessions or permits granted to them in conformity with this Act and any other applicable legal provisions, subject to the limitations established in article 27 of the Constitution.

Article 23. With regard to the development, use or utilization of ground water in prohibited zones, an allocation or a concession shall be required, subject to the prior granting of a permit for the ground-water-lifting facilities, in accordance with the provisions of article 7.

Article 24. For the purpose of determining the existence of free waters that are affected by water-supply rights, replenishment or water-access rights, the Ministry and the Department of Agrarian Affairs and Settlement shall co-ordinate their activities in accordance with the Federal Land Reform Act.

Article 25. In the granting of authorization for the establishment of industries which depend upon the development, use or utilization of nationally-owned waters, the competent authorities shall require the interested parties to have the corresponding permit, concession or allocation.

Article 26. Where water is used to provide various services by means of a single system or works, the Ministry may construct the same either directly or in conjunction with other branches of the Federal Executive or by virtue of agreements with agencies in the public sector or with local or municipal authorities.

Article 27. In the development, use or utilization of nationally-owned waters which include underground waters, the Ministry shall observe the following order of priority:

- I. Domestic uses;
- II. Urban public services;
- III. Watering of livestock;

- IV. Irrigation of:
 - (a) Public or common land;
 - (b) Privately owned land.
- V. Industries:
 - (a) Generation of electric power for public services;
 - (b) Other industries;
- VI. Agriculture;
- VII. Generation of electric power for private consumption;
- VIII. Washing of land and dressing with silt;
- IX. Other purposes.

The Federal Executive may alter this order of priority when the public interest so requires, except with regard to domestic uses, which shall always have preference.

Chapter II

DRINKING-WATER SUPPLY AND SEWAGE WORKS

Article 28. Where the use or utilization of national waters is required in order to meet the water needs of urban areas, the state and territorial governments and municipal councils shall request the corresponding allocation from the Ministry, subject to the provisions of this Act and the regulations made thereunder.

Article 29. The Ministry shall supervise the use and distribution of nationally-owned waters which have been allocated, with a view to conserving the aquifer reserves.

Article 30. The Ministry shall allocate the water supply necessary for the use of population centres once the requirements of the health regulations and of the Federal Act for the Prevention and Control of Environmental Pollution and the regulations made under that Act have been met.

...

Chapter III

IRRIGATION DISTRICTS

Section 1—Establishment and composition

Article 42. The development or utilization of water in the various irrigation districts shall be regulated in accordance with the terms and conditions imposed by this Act.

Article 43. The irrigation districts shall be composed of:

- I. The areas contained within their boundaries;
- II. Surface water and ground water intended for irrigation;
- III. Reservoirs;
- IV. Operational units;
- V. Storage or diversion dams;
- VI. Surface-water and ground-water pumping systems;
- VII. Control and protection works;
- VIII. Conduits, drains, service roads; and
- IX. The other works and installations necessary for the operation and functioning of the districts.

...

Article 49. The Ministry shall be empowered to utilize surface water, groundwater and residual water as sources of supply for the irrigation districts.

...

Section 3—Management, operation, conservation and development

...

Article 59. Water shall be distributed according to crop cycles and in such a way as to supply users with the quantity needed to meet their irrigation requirements, taking into consideration:

- I. The category and number of the crops approved by the management committee;
- II. The availability of water for the relevant cycle;
- III. The extent of entitlement to the irrigation service according to the register of users; and

IV. The provisions of the operational regulations put into effect in each district by the Ministry.

Article 60. Where, for reasons of *force majeure*, water resources are inadequate to meet demand in the irrigation district in any crop cycle, the available water resources shall be distributed equitably among small landholders, settlers and the owners of public or communal land (the latter two categories being understood to comprise the number of users who are recorded in the census of the local population as owners of public or communal land) in the following manner:

I. The quantity of water available shall be divided by the number of users in order to determine, on the basis of the average irrigation coefficient established by the Ministry, the area which may be planted by each user; and

II. Where the area which can be planted by a user is less than that entered in the register of users, the surplus water shall be redistributed among the other users.

...

Article 62. Owners or holders of land who have independent means of irrigation shall be entitled to be supplied only with such additional quantities of water as do not exceed the maximum authorized for other users.

In the event of a shortage of water, users having independent means of irrigation shall, once their requirements in respect of the area authorized by virtue of the register are met, deliver to the district such quantities of water as the Ministry may determine. The district shall defray the resulting costs.

...

Article 66. Users shall be obliged to use the irrigation service efficiently and for the purposes specified in the annual agricultural programmes. Failure to do so shall entail suspension or forfeiture of their right to use the irrigation service, as provided in this Act and the applicable agrarian regulations.

...

Chapter IV

IRRIGATION UNITS FOR RURAL DEVELOPMENT

Article 73. At the discretion of the Ministry, irrigation units for rural development may be established for the purpose of providing rural communities with water services, for domestic, irrigation, stock-watering, fish-breeding, recreational or industrial uses through the construction and rehabilitation of water-related works.

The units may be integrated with works under the jurisdiction of the Federal Government, state governments, municipal councils, and bodies and enterprises in the public sector and those under public, community or private control.

...

Chapter V

DRAINAGE AND FLOOD CONTROL DISTRICTS

Article 84. The Ministry may construct torrent-control, flood-control, drainage or land-reclamation works and such additional works as may be needed to ensure the optimum use of land for agricultural purposes.

Where the Federal Executive sees fit, it may establish in conjunction with these works, a drainage and flood-control district, and, if conditions permit, may also make provision for irrigation services.

...

Chapter VI

AQUICULTURE DISTRICTS

Article 87. Aquiculture districts shall be established by decree of the Federal Executive, and such decree shall set out the sources of supply and the supply requirements, the boundaries of the district, the units which the district comprises, and any prohibitions which may be necessary in respect of national waters, whether surface waters or ground water.

Article 88. The purpose of the aquiculture districts shall be the preservation and improvement of the natural conditions of nationally-owned waters, the development and exploitation of aquatic animal and plant species and the exploitation of mineral salts.

Article 89. The aquiculture districts shall comprise:

I. The coastal and inland streams, lakes and lagoons, the estuaries and the corresponding portions of the territorial sea, the relevant federal zones and terrestrial maritime zones and the portions of the continental shelf which are included within its boundaries;

II. The ground water intended for the district's services;

III. Storage or diversion dams, systems for the pumping of nationally-owned surface waters and of ground water in prohibited zones and for control and protection, drains, canals, service roads and other necessary works and installations.

...

Chapter VII

WATER FOR THE GENERATION OF ELECTRIC POWER FOR PUBLIC SERVICES

Article 100. The exploitation, use or appropriation of water for the generation of electric power for public services shall be reserved exclusively to the Nation,

...

Article 102. The Federal Executive, on the basis of the studies and plans referred to in the previous article, shall prescribe, on behalf of the Federal Electricity Commission, the allocation of the quantities of water intended for the generation of electric power and plant refrigeration.

In the case of each nationally-owned stream, basin, lake, lagoon or body of standing water, the Ministry shall carry out periodic programming of the necessary extraction and distribution, so as to regulate the appropriation of water, by the Federal Electricity Commission, in relation to the other uses of water on the basis of the priorities established by this Act.

...

Article 104. The Federal Executive may decree the reservation of nationally-owned waters for the generation of electric power. Ground water in the form of steam or at a temperature higher than 80 degrees centigrade shall be permanently reserved for that purpose.

Article 105. While not in use, the reserved water may be appropriated by individuals by virtue of concessions granted by an express decision of the Ministry after consultation with the Federal Electricity Commission.

Article 106. The Federal Electricity Commission shall be required to pay assessments, the amount, payment period and manner of payment of which shall be determined in each case by the Federal Executive.

Chapter VIII

GROUND WATER

Article 107. The Ministry shall keep a permanent national register, by zones or regions, of ground water-lifting facilities and points at which ground water emerges, in order to have information about the behaviour of aquifers and to regulate their development use or utilization.

For that purpose, ground water users shall be obliged to notify the Ministry of existing drilling and extraction facilities and of those which are being provided or are to be provided. The Ministry shall, for its part, request such information from owners in non-prohibited zones.

...

Article 109. Ground water users in prohibited zones shall be obliged to:

I. Install in the facilities, meters and other equipment by which discharge rates, volumes and levels can be determined;

II. Permit the inspection of drilling installations and extraction facilities and the reading and checking of the meters, in order to verify the behaviour of the aquifer.

Article 110. The regulations for each prohibited zone shall specify the authorized extraction volumes and shall include such special provisions as may be required.

...

TITLE IV
THE DISTRIBUTION OF FLOWING AND STANDING
WATERS

Chapter I
REGULATION

...
Article 159. The Ministry may regulate the distribution of water from a nationally-owned stream or body of standing water in order to co-ordinate the exercise of the rights of the users, avoid waste, ascertain the existence of surpluses and obtain a higher yield.

In the event of problems due to a shortage, the Ministry shall regulate the distribution of water, having due regard, as appropriate, to the quantities available to irrigation districts.

Article 160. In regulating the distribution of water, the Ministry shall take into consideration:

- I. The surveys, reports and plans available to it;
- II. The annual volume of stream flow;
- III. In consultation with the Department of Agrarian Affairs and Settlement, the water-supply rights or water-access rights granted to population centres;
- IV. The legal status of each case of development, use or utilization and the length of time it has been in existence;
- V. The manner in which the beneficiaries have been utilizing the waters;
 - I. The nature and the condition of the works;
 - VII. The regulations in force concerning fishing;
 - VIII. Materials extracted from river beds and basins; and
 - IX. The needs to be met.

...
Article 162. In regulating the distribution of water, the Ministry shall proceed as follows:

I. It shall reduce or terminate *de facto* development, use or utilization where this has existed for less than five years and, subsequently where it has existed for a longer period; and

II. It shall modify the previously authorized volumes of water, except those for agricultural purposes, which must be studied by the Department of Agrarian Affairs and Settlement so that the appropriate Presidential decision may be issued.

...
Article 166. Any new development, use or utilization in respect of streams or standing waters which are already regulated may affect only surplus waters or waters recovered through expropriation, extinction, expiry or revocation.

Chapter II
WATER BOARDS

Article 168. The Water Boards shall be in the nature of auxiliary organs of the Ministry and shall be governed by their own regulations, which shall be approved by the Ministry.

Article 169. The Water Boards shall be responsible for applying the orders regulating water distribution.

NIGER

Act No. 71-17 of 30 March 1971 issuing the Fisheries Regulations^{33, 34}

33. Articles 1 to 5 of this Act read as follows:

TITLE I
FISHING RIGHTS

Article 1. Fishing rights shall be vested in the State in publicly

³³ *Journal officiel de la République du Niger*, 15 April 1971, 38th year, No. 8. p. 246.

³⁴ By a note dated 11 December 1971, the Ministry of Foreign Affairs of the Republic of the Niger indicated that a French Act on

owned waters, irrespective of whether they are navigable or floatable; namely, large and small rivers, lakes, ponds, pools and storage dams and auxiliary works.

Article 2. The State may grant fishing rights to its nationals or to aliens against payment of a fee or without charge.

The terms and restrictions governing the granting of permits shall be established in regulations.

Article 3. Fishing rights exercised in accordance with local custom on the date of the promulgation of this Act by individuals or groups of individuals who are nationals of the Niger shall be recognized and confirmed.

Such rights shall be recorded and established in regulations.

TITLE II
PROTECTION OF FISH

Article 4. The execution of works of any kind in publicly owned waters shall require an administrative permit.

Article 5. All measures relating to close periods and restrictions on fishing, which may vary according to the species and the region concerned, shall be established by decree of the Council of Ministers. Close periods may not exceed one year unless exceptional circumstances exist.

Fisheries projects situated in waters serving agricultural or industrial purposes, as well as the processing, packaging, transport and sanitary inspection of fish intended for sale, shall be organized and regulated in the same manner.

NORWAY

Note dated 23 January 1973 from the Permanent Mission to the United Nations

34. The note from the Permanent Mission states the following:

The Norwegian border-rivers with the Soviet Union called "Pasvik-elven" and "Grense Jacobselv" and with Finland called "Tana" and "Neiden" and the Norwegian border-rivers towards Sweden called "Trysil/Klaraelv" and "Hallerødelven" are polluted to an unusually low degree. As these rivers run through areas where the population is gradually decreasing, it is not unlikely that in the future the pollution of the rivers mentioned might be further reduced without particular cleansing efforts being undertaken. The Norwegian Ministry of Environmental Affairs is, however, making preparations for tests of the water quality. The Norwegian authorities expect the Council of Europe to complete its work relating to a European Convention for the protection of border-watercourses against pollution before the end of 1973. Within the Nordic Council, work is being done at a preparatory stage for the preparation of a convention to protect environment. This convention will also include the protection of border-rivers.

ROMANIA

Act of 20 April 1973 concerning water management in the Socialist Republic of Romania

35. With a view to the conservation of the water resources of the country, their rational management, the preservation of water quality and the protection of the population and property against the destructive action of water, the Grand National Assembly of the Socialist Republic of Romania adopted the above act, which contains the following provisions:

fishing in territorial waters dated 1 March 1888 had applied in the Niger until 30 March 1971, the date on which Act No. 71-17 issuing the Fisheries Regulations was promulgated.

Chapter I

GENERAL PROVISIONS

Article 1. In the Socialist Republic of Romania water management constitutes a State problem.

The Ministry of Agriculture, of the Food Industry and of Water Resources, acting through the National Water Council, shall implement Party and State policy with regard to rational water management and the provision of water supplies to meet the needs of the population and the national economy and shall co-ordinate, guide and supervise the use and protection of water resources.

The conservation, management and development of water resources, the protection of their quality against pollution, the rational use and economization of water, prevention of and protection against activities harmful or destructive to water shall be tasks requiring the participation of all State organs and organizations, co-operative organizations, other public organizations and all inhabitants of the country.

Article 2. The provisions of this Act shall apply to:

(a) Surface waters: natural and artificial watercourses, natural and artificial lakes and swamps;

(b) Ground water, phreatic and deep, including springs;

(c) Internal waters;

(d) The territorial sea.

The beds of watercourses, the drainage basins of lakes, banks, cliffs, sea beaches, the bed of internal waters and the territorial sea, the continental shelf and works constructed on waters or connected with waters which, directly or indirectly, result in definitive or temporary changes in the water flow régime or in water quality, shall likewise be subject to the provisions of this Act.

The waters which form or intersect the State frontier shall be subject to the provisions of this Act, save where international conventions to which the Socialist Republic of Romania is Party provide otherwise.

Article 3. For the purposes of this Act, the term "water management" shall be understood to mean all measures, works, constructions, and installations designed to secure in a uniform manner the water régime which best serves the common interest for the purpose of preventing and controlling the destructive action of water, ensuring its rational use to meet socio-economic needs and safeguarding it against depletion and pollution.

Article 4. With a view to the co-ordination of water management activities for the multi-purpose management and optimal development of water resources, for their protection against pollution and for the prevention of the destructive action of water, the National Water Council shall be responsible for drawing up, in co-operation with the ministries, the other central authorities and the executive committees of the people's councils of the counties and of the municipality of Bucharest, the hydrographic basin management plans and the general water resources management plan of the Socialist Republic of Romania, which shall be submitted for approval to the Council of Ministers.

The management plans shall describe the quantitative and qualitative situation with regard to water resources, by hydrographic basin, indicate any surplus or shortage of water in relation to socio-economic development needs and outline the most appropriate approach from the technical and economic point of view, to the solution of water management problems, by stages, in the context of long-term hydrographic basin management.

The management plans or, where appropriate, only the hydraulic engineering schemes for multi-purpose management shall be brought up to date periodically as the national economy develops.

...

Article 6. Water resources, water management works, constructions and installations shall, wherever necessary and feasible, be used in a multi-purpose fashion in order to meet the greatest possible number of needs with the same amount of water and the same works and in order to co-ordinate water use with measures to control the harmful or destructive action of water and measures to protect water resources against depletion and pollution.

Chapter II

PREVENTION AND CONTROL OF THE DESTRUCTIVE ACTION OF WATER

Section I—General measures relating to protection against the destructive action of water

Article 7. With a view to the prevention and control of the destructive action of water the necessary means shall be made available—through the State plan and budget and through contributions in money and in labour to the execution of certain works of public interest—for the construction of the main works for the regulation of watercourses, such as storage, banks protection works, embankments, torrent regulation works, drainage works, reclamation works and afforestation of degraded land in hydrographic basins, the prevention and control of soil erosion and land subsidence, and also for activities relating to hydro-meteorological forecasting and flood warnings.

With respect to watercourses in areas subject to the destructive action of water, socialist organizations, other juridical persons and natural persons shall be required to take the measures and execute the works necessary to protect the property which they own, directly administer or use.

The placing of constructions of any kind in the main beds of watercourses or in flood zones shall be permitted only with the approval of the water management authorities and on condition that the necessary steps are taken to avoid danger of flooding.

Section II—Water flow

Article 8. In unregulated areas waters must be allowed to flow along the natural course. Persons holding down-stream lands shall be obliged, in withdrawing water, to take that which flows naturally from up-stream lands.

Works for damming off or crossing over watercourses, such as dikes, bridges, roads, railways, water intake structures, and any other works which may obstruct the natural flow shall be so executed and operated as to minimize any unfavourable changes in water flow conditions.

Article 9. Works or any other measures by which the water flow régime is altered may be carried out only with the approval of the water management authorities, granted on the basis of the technical documentation, in accordance with the provisions of the law. In respect of works and measures which alter the fairway in waters used for navigation or the clearance for ships, the approval of the Ministry of Transport and Telecommunications must also be obtained.

Article 10. Any persons who alter the water flow régime without the approval of the water management authorities and thereby cause or create a risk of damage shall be obliged, upon the order of the water management authorities, to restore the previous state of affairs by removing the works executed without approval or to execute supplementary works to avoid the occurrence of damage.

...

Section IV—Organization of protective measures against floods and ice

Article 24. Protection against floods and ice shall constitute a permanent task for all State organs and organizations and the other socialist organizations, and a duty for all inhabitants of the country.

...

Chapter III

WATER USE

Article 32. Water resources shall be managed in such a way as to ensure their rational use to meet the immediate and long-term water needs of the population and of the economy.

Article 33. New needs for water shall be met from available water resources according to the socio-economic importance of the use as established in this Act or other normative acts.

The satisfaction of the population's water needs shall take precedence over any other use.

Water supply to units performing public services and to the animal husbandry sector shall also be accorded priority.

In situations where, in a particular area, there are no water resources available and there are justified needs for water which have priority from the socio-economic point of view, such needs may be met from water resources previously allocated to other uses.

...

Article 34. Ground water, including springs, shall be used primarily for supplying drinking water to the population and may be used for no other purpose except fire-fighting, save in cases where the water supply needs of the population are unaffected.

Article 35. Drinking water from the water supply system of population centres shall also be used to meet the needs of socio-economic activities which cannot be carried on without water of potable quality.

Drinking water may be used for other purposes as well only if satisfaction of the needs referred to in the foregoing paragraph has been ensured and only on condition that the new uses may be limited or discontinued in the event that new needs for the supply of water to the population arise.

...

Article 38. The use of surface and ground water for drinking and industrial water supply, irrigation, the generation of electric power, pisciculture, reed cultivation, rafting of logs, floating of timber, recreation or any other purposes, . . . shall be permitted only on the basis of and under the conditions prescribed in the authorization granted by the county water management authorities.

Article 39. If, on account of natural or other objective causes, water resources diminish to the extent that authorized supplies cannot be produced fully to cover all uses, temporary restrictions may be imposed on water consumption . . .

Article 40. Navigation, fishing, the use of mineral and thermal waters, and the cultivation of reeds in the Danube Delta shall be governed by special rules. Works executed for the foregoing purposes and affecting the flow régime or water quality shall be subject to the provisions of this Act.

Navigation, rafting of logs, floating of timber and fishing shall be carried on in such a way as not to impair the condition of banks or stream-beds, structures or installations in stream-beds or of natural monuments, and not to infringe on the rights of other water users.

Article 41. Management of deep ground water shall be effected on the basis of assessment of the ground-water reserves available for use.

...

Chapter IV

PROTECTION OF WATER QUALITY

Article 43. All pollution of surface or ground water shall be prohibited.

The term "water pollution" shall be understood to mean alteration of the physical, chemical or biological properties of water, caused directly or indirectly by human activities, whereby the water becomes unfit for normal use for the purposes for which such use was possible before the alteration took place.

Article 44. The Ministries, other central authorities, local organs of State administration, socialist organizations, other juridical persons and all inhabitants of the country shall have the obligation to protect waters from pollution so that they may be used to meet the needs of the population and the economy and for the conservation of aquatic life.

Article 45. The discharge of waste water and the dumping or injection, in any manner, of materials which could cause pollution of surface or ground water shall be permitted only on the basis of and under the conditions prescribed in the authorization granted by the county water management authorities.

The discharge or injection of waste water or other materials into deep aquifers shall also require the approval of the Department of Geology of the Ministry of Mines, Petroleum and Geology, in accordance with the laws in force.

Article 46. For the purposes of this Act, the term "waste water" shall be understood to mean waters which are discharged after use, such as waters used in human settlements, hospitals, sanatoria, factories, plants, thermal power stations, mines, oil fields, stock-breeding farms, warehouses, discharges from ships and boats, run-off from

precipitation which has been contaminated with foreign substances derived from the aforementioned uses or flows from other sources similarly contaminated, as well as water whose temperature has changed as a result of use.

Waters which, as a result of use, have become radio-active or increased their level of natural radiation shall also be considered waste water.

Article 47. The use, transport, handling and storage of materials or other substances on or over water, in areas adjacent to waters or in any other place from which such materials or substances could reach surface or ground water shall be carried out under conditions such as to ensure that no water pollution results therefrom.

Article 48. Waste water from sewerage systems of population centres shall be discharged into watercourses only after it has been adequately purified. The executive committees of the people's councils shall arrange for the construction of purification stations in population centres with sewerage systems.

...

Article 52. In the event of serious water pollution or of a risk of serious pollution threatening public health or likely to cause substantial damage to the economy, the National Water Council may order the suspension of operations of units or installations causing water pollution until the causes thereof are removed, having first notified the central authority or the executive committee of the people's council to which the offending unit is subordinate.

Article 53. In order to ensure the quality of drinking water, the Ministry of Health shall prescribe standards for drinking water, and the health measures which must be taken at water supply installations and points of consumption and shall exercise supervision over the latter.

...

Article 54. The water management authorities shall be responsible for the organization of the collection of data, quality of water resources, systematically surveying the latter. They shall draw up water quality management plans for rivers and hydrographic basins and shall make available to the socialist organization, at their request, the results of studies and research undertaken as well as data concerning conditions regarding the discharge of waste water into surface or ground water. All organizations which make analyses relating to water shall contribute to the establishment of the data bank on water quality, under conditions to be established by a decision of the Council of Ministers.

Article 55. The water management authorities shall exercise, in accordance with the law, systematic supervision over the application of measures to protect water quality, co-operating with the health, piscicultural and hunting authorities, the tourist authorities and other State and public organizations.

Water quality supervisory commissions shall be established to deal with watercourses where the maintenance of adequate water quality requires special measures to co-ordinate protection efforts. These commissions shall function under the guidance of the National Water Council and shall be composed of representatives of the executive committees of the people's councils concerned, of the county water management authorities, of the county health inspectorates, of the units which use the watercourse as a source of supply, and also of the units which may cause pollution of the watercourse.

NOTE. Chapter V of this Act deals with questions concerning the planning, execution, maintenance and operation of works constructed on or connected with bodies of water. With a view to ensuring the rational and multipurpose use of water resources, the preservation of water-quality and the avoidance of damages caused by the destructive action of water, article 59 makes it mandatory to submit the technical documentation relating to such works to the water management authority for approval. Chapter VI contains provisions concerning measures to be taken for the protection and conservation of agricultural lands in connexion with the execution of works constructed on or connected with waters. Chapter VII deals with organization and supervision in the field of water management.

Part Two

Treaties and other international instruments

Chapter I

MULTILATERAL AND BILATERAL TREATIES

A. Africa

MULTILATERAL TREATIES

Guinea-Mali-Mauritania-Senegal

Convention relating to the general development of the Senegal River basin, signed at Bamako on 26 July 1963^{35, 36, 37}

36. *Establishment of an Inter-State Committee. Composition. Functions. Sessions.* An Inter-State Committee shall be established to promote and co-ordinate research and works relating to the development of the Senegal River basin (art. 1). The Committee shall consist of four Ministers in the proportion of one for each riparian State. The Ministers may be assisted by any experts of their choosing (art. 2). The Committee shall meet once a year in a regular session convened by its Chairman and in special sessions at the request of one of the member States. It shall have a permanent general secretariat (art. 6).

37. *Activities of the Inter-State Committee.* Development programmes affecting a riparian State must be approved by the Committee, which shall assess their impact on the River basin works as a whole (art. 8). Requests for bilateral or multilateral assistance in connexion with the various development works in the River basin shall be made by the riparian States, either jointly or separately. In the latter case, the Committee shall be consulted in advance (art. 9).

38. *International character of the Senegal River.* The Senegal River—including its tributaries—is declared by the riparian States to be an “international river”, under a statute prepared and ratified by the four riparian States (art. 13).

39. *Settlement of disputes.* Any dispute that may arise between the riparian States regarding the interpretation or application of the Convention shall be settled amicably or, if necessary, by arbitration (art. 17).

Cameroon-Chad-Dahomey-Ivory Coast-Guinea-Mali-Niger-Nigeria-Upper Volta

Act regarding navigation and economic co-operation between the States of the Niger basin. Done at Niamey on 26 October 1963^{38, 39}

40. *Abrogation of treaties concerning the River Niger.* The General Act of Berlin of 26 February 1885, the General Act and Declaration of Brussels of 2 July 1890, and the Convention of Saint-Germain-en-Laye of 10 September 1919 are and remain abrogated as far as they concern the River Niger, its tributaries and sub-tributaries (art. 1).

³⁵ No information is available regarding the entry into force of this Convention.

³⁶ *Revue juridique et politique* (Paris), XIXth year, No. 2 (April-June 1965), p. 299.

³⁷ See also paras. 45–50 below. Convention relating to the status of the Senegal River.

³⁸ Adopted at the Conference of the Riparian States of the River Niger, its tributaries and sub-tributaries, held at Niamey from 24 to 26 October 1963. Came into force on 1 February 1966.

³⁹ United Nations, *Treaty Series*, vol. 587, p. 9.

41. *Utilization of the River Niger.* The utilization of the River Niger, its tributaries and sub-tributaries, is open to each riparian State in respect of the portion of the River Niger basin lying in its territory and without prejudice to its sovereign rights in accordance with the principles defined in the Act and in the manner that may be set forth in subsequent special agreements. The utilization of the River, its tributaries and sub-tributaries, shall be taken in a wide sense, to refer in particular to navigation, agricultural and industrial uses, and collection of the products of its fauna and flora (art. 2).

42. *Co-operation in matters concerning the régime of the River Niger.* The riparian States undertake to establish close co-operation with regard to the study and the 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 (art. 4).

43. *Undertaking of the Parties to establish the Inter-Governmental Organisation of the River Niger. Close relations with other international organizations.* In order to further their co-operation, the riparian States undertake to establish an Inter-Governmental Organisation which will be entrusted with the task of encouraging, promoting and co-ordinating the studies and programmes concerning the exploitation of the resources of the River Niger basin. The Inter-Governmental Organisation, the composition and functions of which shall be the subject of a subsequent agreement,⁴⁰ shall establish appropriate close relations with the competent specialized agencies of OAU and shall also maintain useful relations with the United Nations Organization, its specialized agencies, and other international organizations (arts. 5 and 6).

44. *Settlement of disputes.* Any dispute that may arise between the riparian States regarding the interpretation or application of the Act shall be amicably settled by direct agreement between them or through the Inter-Governmental Organisation. Failing such settlement, the dispute shall be decided by arbitration, in particular by the Commission of Mediation, Conciliation and Arbitration of OAU, or by judicial settlement by the International Court of Justice (art. 7).

Guinea-Mali-Mauritania-Senegal

Convention relating to the status of the Senegal River, signed at Dakar on 7 February 1964^{41, 42}

45. *Establishment of co-operation between the Parties.* The

⁴⁰ Agreement concerning the Niger River Commission and the navigation and transport on the River Niger. See paras. 57–59 below.

⁴¹ No information available regarding the entry into force of this Convention.

⁴² *Revue juridique et politique* (op. cit.), p. 302.

Parties express their desire to develop close co-operation in order to promote the rational utilization of the resources of the Senegal River basin and to ensure freedom of navigation and equality of treatment of its users (art. 1).

46. *Utilization of the Senegal River.* The utilization of the Senegal River is open to each riparian State in respect of the portion of the River lying in its territory and within its sovereignty, in accordance with the procedures defined in the Convention and in subsequent instruments (art. 2).

47. *Obligation of the Parties to submit to the Inter-State Committee⁴³ projects likely to alter certain features of the régime of the Senegal River.* The riparian States undertake to submit to the Inter-State Committee, as from their initial stage, projects whose execution is likely appreciably to alter certain features of the régime of the River, its conditions of navigability, agricultural or industrial exploitation, the sanitary conditions of its waters, and the biological characteristics of its fauna and flora (art. 3).

48. *Functions of the Inter-State Committee.* In addition to the functions stipulated in the Convention of 26 July 1963 relating to the general development of the Senegal River basin, the Inter-State Committee shall be responsible, *inter alia*, for: (a) preparing joint rules permitting the complete application of the principles affirmed by the Convention; (b) ensuring that the said rules are observed; (c) assembling basic data relating to the River basin as a whole and preparing and submitting to the Governments of the riparian States co-ordinated research programmes and works for the development and rational utilization of the resources of the Senegal River; (d) examining projects prepared by the States for the development of the River; (e) where necessary, at the request of one or more riparian States, studying and executing River development projects; (f) informing the riparian States of all projects or problems concerning the development of the River basin, promoting harmonious contacts between the States in this field and contributing to the solution of disputes; and (g) where necessary, preparing on behalf of the riparian States requests for bilateral or multilateral financial and technical assistance for research and works for the development of the River (art. 11).

49. *Status of the decisions of the Inter-State Committee.* Following their approval by the States concerned, the joint rules as well as other decisions adopted by the Committee shall be binding in relations between the States and vis-à-vis their domestic legislation (art. 11 (a)).

50. *Settlement of disputes.* Without prejudice to the provisions of the statute of the Inter-State Committee, and failing direct agreement between the States, any dispute that may arise between them regarding the interpretation or application of the Convention shall be brought before an arbitrator agreed upon by the Parties. Failing an agreement, and as a last resort, the Parties must refer their dispute to the International Court of Justice (art. 16).

⁴³ Established by the Convention relating to the general development of the Senegal River basin (see para. 36 above).

Cameroon-Chad-Niger-Nigeria

Convention and Statutes relating to the development of the Chad Basin, signed at Fort-Lamy on 22 May 1964^{44, 45}

51. *Establishment of the Chad Basin Commission. Composition. Functions. Sessions. Decisions.* The Parties, considering that the projects formulated by them for the utilization of the Chad Basin waters are capable of modifying its system and in consequence its exploitation by other States members of OAU, deem it desirable to set up a Commission for the purposes of preparing general regulations, co-ordinating research activities of member States, examining the schemes prepared by the latter, making recommendations and in general maintaining contacts between the member States (Preamble and art. 1). The Commission shall consist of eight members in the proportion of two per member State (Statutes, art. 8, para. 1). It shall have, *inter alia*, the following terms of reference: preparing joint rules permitting the complete application of the principles affirmed by the Convention and the appended Statutes; assembling, examining and diffusing information on the projects prepared by member States and recommending the planning of joint works and research programmes within the Chad Basin; maintaining liaison between the member States with a view to the most efficient utilization of the waters of the Basin; following up the execution of works and studies in the Chad Basin falling within the ambit of the Convention; examining complaints and assisting in settling disputes; and supervising the implementation of the provisions of the Convention and the appended Statutes (Statutes, art. 9). The Commission shall meet at least once a year. It shall meet exceptionally at the request of two member States (Statutes, art. 8, paras. 2 and 3). Decisions of the Commission shall be adopted unanimously (Statutes, art. 10). The joint regulations and recommendations of the Commission shall be transmitted to the Governments of member States for their decision (Statutes, art. 11).

52. *Legal status of the Commission.* The Commission shall, in all respects, enjoy the status of an international body. The Members and the Executive Secretary shall enjoy the diplomatic privileges and immunities granted by the member States. The personnel of the Commission shall enjoy the privileges and immunities normally accorded to the officials of equivalent status of OAU (Statutes, art. 17).

53. *Co-operation for the development of the Chad Basin.* The member States solemnly affirm their determination to intensify their co-operation and efforts towards the development of the Chad Basin (Statutes, art. 1).

54. *Exploitation of the Chad Basin.* The Chad Basin shall be open to the exploitation of all the Parties to the Convention, in full respect of the sovereign rights of each of them and in accordance with the terms and conditions of the Statutes, subsequent revisions or regulations or special

⁴⁴ No information is available regarding the entry into force of this Convention.

⁴⁵ For the English and French texts, see: *Journal officiel de la République fédérale du Cameroun* (Yaoundé), 15 September 1964, 4th year, No. 18, p. 1003.

agreements (Statutes, art. 3). The exploitation of the Basin and especially the utilization of surface and underground waters has the widest meaning and refers in particular to the needs of domestic and industrial and agricultural development and the collecting of its fauna and flora products (Statutes, art. 4).

55. *Obligation of the Parties to refer to the Commission any measures and schemes likely to have a marked influence on the Basin.* The member States undertake to refrain from adopting, without prior reference to the Commission, any measures likely to exert a marked influence either upon the extent of water losses, or upon the form of the annual hydrograph and limnograph and certain other characteristics of the Lake, upon the conditions of their exploitation by other bordering States, upon the sanitary condition of the water resources or upon the biological characteristics of the fauna and the flora of the Basin (Statutes, art. 5, para. 1). With a view to obtaining the closest possible co-operation on matters relating to the Chad Basin, the member States agree to inform the Commission of any studies and schemes which they propose to undertake, as from their initial stage (Statutes, art. 6).

56. *Settlement of disputes.* Any dispute concerning the interpretation or implementation of the Convention, which has not been determined by the Commission, shall be submitted to the Commission of Mediation, Conciliation and Arbitration of OAU for the purposes of decision (art. 7 of the Convention).

**Cameroon–Chad–Dahomey–Guinea–Ivory Coast–Mali–
Niger–Nigeria–Upper Volta**

Agreement concerning the Niger River Commission and the navigation and transport on the River Niger, done at Niamey on 25 November 1964^{46, 47}

57. *Establishment of the River Niger Commission. Composition. Functions. Sessions. Decisions.* There shall be established an Inter-Governmental Organization called River Niger Commission (art. 1). The Commission shall consist of nine Commissioners one for each riparian State and shall have an Administrative Secretary appointed from among the candidates proposed by the riparian States (arts. 3 and 6). It shall have, *inter alia*, the following functions: to prepare General Regulations which will permit the full application of the principles set forth in the Act of Niamey, and to ensure their effective application; to maintain liaison between the riparian States in order to ensure the most effective use of the waters and resources of the River Niger basin; to collect, evaluate and disseminate basic data on the whole of the basin, to examine the projects prepared by the riparian States, and to recommend to the Governments of the riparian States plans for common studies and works for the judicious utilization and develop-

ment of the resources of the basin; to follow the progress of the execution of studies and works in the basin and to keep the riparian States informed thereon; to examine complaints and to promote the settlement of disputes and the resolution of differences; and, generally, to supervise the implementation of the provisions of the Act of Niamey and the Agreement (art. 2). The Commission shall meet in ordinary session once a year. It may meet in extraordinary session at the joint request of any three riparian States (art. 5). The decisions of the Commission shall be taken by a majority of two thirds of the Commissioners present and voting. The General Regulations and the other decisions of the Commission shall, after approval by the riparian States and after a time-limit fixed by the Commission, have binding force as regards relations among the States as well as their internal regulation (arts. 4 and 2).

58. *Legal status of the Commission.* The Commission shall have for all purposes the status of an international organization. The Commissioners and the Administrative Secretary shall be accorded diplomatic privileges and immunities by the riparian States. The other staff of the Commission shall be accorded such privileges and immunities as are accorded to officials of OAU of equivalent status (art. 11).

59. *Obligation of the riparian States to inform the Commission of the studies and works upon which they propose to embark.* In order to achieve maximum co-operation in connexion with matters concerning the River Niger, the riparian States undertake to inform the Commission, at the earliest stage, of all studies and works upon which they propose to embark, and to abstain from carrying out on the portion of the River, its tributaries and sub-tributaries subject to their jurisdiction any works likely to pollute the waters, or any modification likely to affect biological characteristics of its fauna and flora, without adequate notice to, and prior consultation with, the Commission (art. 12).

B. America

1. MULTILATERAL TREATIES

Argentina–Bolivia–Brazil–Paraguay–Uruguay

Treaty on the River Plate Basin, signed at Brasilia on 23 April 1969^{48, 49}

60. This Treaty, known as the River Plate Basin Treaty, was adopted at the First Extraordinary Meeting of Foreign Ministers of the River Plate Basin States, convened in Brasilia on 22 and 23 April 1969.⁵⁰

61. *Combined efforts for the harmonious development and*

⁴⁸ Came into force on 14 August 1970.

⁴⁹ To be printed in United Nations, *Treaty Series*, vol. 875, as No. 12550.

⁵⁰ To give practical and effective form to the action undertaken with a view to the full utilization of the resources of the River Plate Basin, as described in the relevant provisions of this Treaty, the Parties adopted, at the Fourth Meeting of their Foreign Ministers held from 1 to 3 June 1971, the Act of Asunción, the text of which is reproduced in chapter II below. That chapter also reproduces the texts of bilateral Acts and Declarations done between States of the River Plate Basin, and between one of those States and another neighbouring State. The provisions of these instruments have been influenced by the principles set forth in the River Plate Basin Treaty.

⁴⁶ Came into force on 12 April 1966. The Agreement, which forms an integral part of the Act of Niamey (see paras. 40–44 above), was concluded for the purpose of giving effect to the provisions of that Act by which the Parties had undertaken to establish an Inter-Governmental Organization entrusted with the fostering, the promotion and the co-ordination of studies and programmes relating to the utilization and development of the resources of the River Niger basin.

⁴⁷ United Nations, *Treaty Series*, vol. 587, p. 19.

physical integration of the River Plate Basin. The Parties agree to combine their efforts for the purpose of promoting the harmonious development and physical integration of the River Plate Basin, and of its areas of influence which are immediate and identifiable. To this end, they shall promote, within the scope of the Basin, the identification of areas of common interest and the undertaking of surveys, programmes and works, as well as the drafting of operating agreements and legal instruments they deem necessary, and which shall tend toward, *inter alia*: reasonable utilization of water resources, particularly through regulation of watercourses and their multiple and equitable uses; conservation and development of animal and vegetable life; economic co-operation in frontier areas (art. I).

62. *Meetings and decisions of the Foreign Ministers of the River Plate Basin States.* The Ministers shall meet once a year, on a date to be proposed by the Intergovernmental Co-ordinating Committee,⁵¹ for the purpose of drafting basic directives of common policy aimed at attaining the objectives established by the Treaty. They may meet in extraordinary sessions at the request of at least three of the Parties. Any decisions adopted at meetings of the Ministers shall require the unanimous vote of the five States (art. II).

63. *The Intergovernmental Co-ordinating Committee, as a permanent River Basin organ.* For the purposes of the Treaty, the Intergovernmental Co-ordinating Committee is recognized to be the permanent River Basin organ, entrusted with, *inter alia*, promoting, co-ordinating and following the progress of the multinational activities undertaken toward the objective of the integrated development of the River Plate Basin. The Intergovernmental Co-ordinating Committee shall be governed by its Statute, as approved at the Second Meeting of the Foreign Ministers of the River Plate Basin States, held in Santa Cruz de la Sierra, on 18 to 20 May 1968 (art. III).

64. *Safeguarding clauses: freedom of action left to the Parties under the Treaty.* Concerted action among the Parties shall be undertaken without prejudice to those projects and enterprises they may decide to execute within their respective territories, with due respect to international law, and in accord with acceptable practice between neighbouring and friendly nations (art. V). The stipulations of the Treaty shall not inhibit the Parties from entering into specific or partial agreements, bilateral or multilateral, tending towards the attainment of the general objectives of the Basin Development (art. VI).

2. BILATERAL TREATIES

Argentina-Paraguay

Agreement concerning a study of the utilization of the water-power of the Apipé Falls, signed at Buenos Aires on 23 January 1958^{52, 53}

65. *Establishment of a Joint Argentine-Paraguayan Technical Commission. Composition. Functions.* The Parties, considering the possibility of obtaining hydro-electric

energy from the rapids in the River Paraná at the islands of Yacyretá and Apipé, decided to establish a Joint Argentine-Paraguayan Technical Commission to undertake a study concerning the utilization of the water-power of the River Paraná at the islands of Yacyretá and Apipé, and the improvement of the navigability of the said River. Surveys shall also cover other advantageous uses of the waters of the Paraná and possibly the improvement of the communications between the two countries through the works to be carried out. The Joint Technical Commission shall be composed of two representatives, one from each Party, and such advisers as may be considered necessary for the accomplishment of their task (arts. I and II).

66. *Surveys to be made by the Commission.* The surveys to be made shall consist principally of: exploration and inspection of the region defined in the Agreement, determining all the technical characteristics of the waters which are relevant to hydraulic utilization; a hydrographic and hydrological survey of the River Paraná and a geological and hydrological survey of the region concerned; a plan of the works needed for hydraulic utilization, including cost estimates; a survey of the possibilities for financing the proposed projects; and a survey of the possible consumption of electric power in the region and of the possible costs (art. II).

67. *Facilities granted to the Commission.* The representatives and advisers and the technical personnel employed by the Commission who are engaged in some work or survey shall have the right to travel freely in the region concerned and enter the territory of the other Party. They shall also enjoy facilities for the accomplishment of their task (art. IV).

68. *Specific period for the completion of the surveys.* A period of two years is fixed for the completion of all the surveys mentioned in the Agreement and for the submission by the Joint Technical Commission to both Governments of its final report, giving a general description of the works, the advantages accruing therefrom, and the methods of carrying out any projects recommended, the execution of the work and the financing plan to be adopted (art. V). It should be noted that the Parties, by exchanges of notes dated 23 January 1967⁵⁴ and 20 July 1967,⁵⁵ extended the Commission until 31 December 1969 to enable it to complete its work.

Guatemala-Mexico

Exchange of notes constituting an agreement concerning the establishment of the International Commission on Boundaries and Waters, Guatemala City, 9 November and 21 December 1961^{56, 57}

69. *Establishment of an International Commission on Boundaries and Waters between the United Mexican States and the Republic of Guatemala. Composition. Functions.* The Parties agree to establish an "International Commission on Boundaries and Waters between the United Mexican

⁵¹ See para. 323 below.

⁵² Came into force on 16 June 1958.

⁵³ United Nations, *Treaty Series*, vol. 649, p. 174.

⁵⁴ *Ibid.*, p. 186.

⁵⁵ *Ibid.*, p. 190.

⁵⁶ Came into force on 21 December 1961.

⁵⁷ Text provided by the Mexican Government.

States and the Republic of Guatemala". The Commission shall comprise two sections, one for Mexico and the other for Guatemala, each headed by a Engineer Commissioner having diplomatic status, who shall be assisted by such technical, legal and administrative staff as may be deemed necessary. The Commission shall be responsible for: (a) Demarcating and maintaining the land boundary lines established by the Boundaries Treaty of 1882; (b) Studying cases which arise as a result of changes in the course of border rivers and recommending appropriate solutions; (c) Studying international watercourses in order to prepare plans for the equitable use and harnessing of their waters, for the benefit of the two countries, and studying matters relating to flood control; (d) Giving advice concerning works to be constructed on any part of the land boundary line or in international river beds and supervising their construction in order to guarantee that the rights of the two countries are not impaired. Questions and problems relating to flood control works and the use and utilization of international waters will be dealt with on the basis of, and in accordance with, the norms and principles recognized under international law and advocated by international organizations, and which are compatible with the best interests of the peoples of both riparian countries.

70. *Responsibilities of the Commission with regard to problems relating to the River Suchiate.* The Commission shall deal with problems relating to the River Suchiate and, for that purpose, it shall: (a) determine, as soon as possible, the points and reaches where the River Suchiate diverges from its course and complete the necessary work to prevent such changes in the course of the river as well as floods and erosion which are harmful to the riparian lands of both countries; (b) study and plan works which are necessary to establish permanent flood channels in places where the river diverges from its course; (c) study the entire River Suchiate basin in order to determine available hydraulic resources and draw up plans for the equitable use and harnessing of the waters for the benefit of both countries; (d) make studies and prepare plans for the construction of a permanent bridge across the River Suchiate, between Tecún Umán, Guatemala, and Ciudad Hidalgo, Mexico. The Commission shall also submit a draft agreement on the construction and operation of the bridge over the River Suchiate containing the basic provisions specified in the exchange of notes.

71. *Legal character of the decisions of the Commission.* The function of the Commission shall be to counsel and advise the Governments of the two countries on border problems, with powers of investigation and study, and to carry out works previously approved by the Governments, but it shall have no decision-making or other powers which might imply commitments by the respective Governments.

Mexico–United States of America

Convention for the solution of the problem of the Chamizal, signed at Mexico on 29 August 1963^{58, 59}

72. The Parties, convinced of the need for continuing the

programme of rectification and stabilization of the Rio Grande, carried out under the terms of the Convention of 1 February 1933,⁶⁰ decided to conclude this Convention for the purpose of arriving at a complete solution of the problem concerning El Chamizal.

73. *Relocation of the Rio Grande in the El Paso–Ciudad Juárez sector.* In the El Paso–Ciudad Juárez sector, the Rio Grande shall be relocated into a new channel in accordance with the engineering plan recommended by the International Boundary and Water Commission, United States and Mexico (art. 1).

74. *Relocation of the international boundary. Transfer of portions of territory.* The centre line of the new river channel shall be the international boundary. The lands that, as a result of the relocation of the river channel, shall be to the north of the centre line of the new channel shall be the territory of the United States and the lands that shall be to the south of the centre line of the new channel shall be the territory of Mexico (art. 3). The relocation of the international boundary and the transfer of portions of territory resulting therefrom shall not affect in any way: the legal status, with respect to citizenship laws, of those persons who are present or former residents of the portions of territory transferred; the jurisdiction over legal proceedings of either a civil or criminal character which are pending at the time of, or which were decided prior to, such relocation; the jurisdiction over acts or omissions occurring within or with respect to the said portions of territory prior to their transfer; the law or laws applicable to such acts or omissions (art. 11). No payments will be made, as between the two Governments, for the value of the lands that pass from one country to the other as a result of the relocation of the international boundary. The lands that, upon relocation of the international boundary, pass from one country to the other shall pass to the respective Governments in absolute ownership, free of any private titles or encumbrances of any kind (art. 4).

75. *Apportionment of the costs of constructing the new river channel.* The costs of constructing the new river channel shall be borne in equal parts by the two Governments. However, each Government shall bear the costs of compensation for the value of the structures or improvements which must be destroyed, within the territory under its jurisdiction prior to the relocation of the international boundary, in the process of constructing the new channel (art. 8).

76. *Jurisdiction and responsibilities of the International Boundary and Water Commission.*⁶¹ The International Boundary and Water Commission is charged with the relocation of the river channel, the construction of the bridges provided for in the Convention and the maintenance, preservation and improvement of the new channel. The Commission's jurisdiction and responsibilities, set forth in the 1933 Convention for the maintenance and preservation of the Rio Grande Rectification Project, are extended upstream from that part of the river included in the Project to the point where the Rio Grande meets the land boundary between the two countries (art. 9).

⁵⁸ Came into force on 14 January 1964.

⁵⁹ United Nations, *Treaty Series*, vol. 505, p. 185.

⁶⁰ See p. 79 above, document A/5409, paras. 206–210.

⁶¹ See p. 76 above, document A/5409, paras. 184–185.

77. *Replacement of existing bridges. Costs.* The existing bridges shall, as a part of the relocation of the river channel, be replaced by new bridges. The cost of constructing the new bridges shall be borne in equal parts by the two Governments (art. 10).

Canada–United States of America

Agreement concerning the establishment of an international arbitral tribunal to dispose of United States claims relating to Gut Dam, signed at Ottawa on 25 March 1965^{62, 63}

78. Nationals of the United States of America alleged that, as a result of the construction and maintenance of a dam in the international section of the St. Lawrence River (known as Gut Dam), their property in the United States had suffered damage or detriment, and claimed compensation for such damage or detriment from the Government of Canada. The Parties considered that the need arose to establish an international arbitral tribunal to dispose of the claims in a final fashion.

79. *Lake Ontario Claims Tribunal United States and Canada. Composition. Functions.* The Agreement establishes this Tribunal for the purpose of hearing and finally disposing of claims presented to it by nationals of the United States including juridical persons. The Tribunal shall consist of the Chairman, to be jointly designated by the two Governments, and of two national members (art. I).

80. *Jurisdiction of the Tribunal.* Each decision of the Tribunal shall be based on its determination of any or more of the following questions (art. II, para. 1):

(a) Was the construction and maintenance of Gut Dam the proximate cause of damage or detriment to the property that is the subject of such claim?

(b) If the construction and maintenance of Gut Dam was the proximate cause of damage or detriment to such property, what was the nature and extent of damage caused?

(c) Does there exist any legal liability to pay compensation for any damage or detriment caused by the construction and maintenance of Gut Dam to such property?

(d) If there exists a legal liability to pay compensation for any damage or detriment caused by the construction and maintenance of Gut Dam to such property, what is the nature and extent of such damage and what amount of compensation in terms of United States dollars should be paid therefor and by whom?

81. *Legal liability. Law applicable.* The Tribunal shall determine any legal liability issue arising under this Agreement in accordance with the following provisions: (a) The Tribunal shall apply the substantive law in force in Canada and in the United States of America (exclusive, however, of any laws limiting the time within which any legal suit with respect to any claim is required to be instituted) to all the facts and circumstances surrounding the construction and maintenance of Gut Dam including all the documents passing between Governments concerning the construction of the dam and other relevant documents; (b) The law in

force in Canada and the United States of America respectively includes international law; (c) No claim shall be disallowed or rejected by the Tribunal through the application of the general principle of international law that legal remedies must be exhausted as a condition precedent to the validity or allowance of any claim. In the event that in the opinion of the Tribunal there exists such a divergence between the relevant substantive law in force in Canada and in the United States of America that it is not possible to make a final decision with regard to any particular claim as provided by this Agreement, the Tribunal shall apply such of the legal principles set forth above as it considers appropriate, having regard to the desire of the Parties thereto to reach a solution just to all interests concerned (art. II, paras. 2 and 3).

82. *Binding character of the decisions of the Tribunal.* The decisions of the majority of the members of the Tribunal shall be the decisions of the Tribunal and shall be accepted as final and binding by the two Governments (art. XII).

NOTE. As a result of negotiations between Canada and the United States, the claims were settled by agreement without the necessity of a ruling by the Tribunal. This agreement, which was reached without prejudice to the legal and factual positions maintained by the parties and without precedential effect, was notified to the Tribunal, whose Chairman took note of it. ("Arbitration of Lake Ontario (Gut Dam) Claims", Canada, *External Affairs* (Ottawa), vol. XX, No. 12 (December, 1968), pp. 507–509. See also: "Report of the agent of the United States before the Lake Ontario Claims Tribunal", in *American Society of International Law, International Legal Materials*, vol. VIII (*op. cit.*), p. 118; and "The Gut Dam Arbitration", *Netherlands International Law Review* (Leiden), vol. XVI, No. 2 (1969), p. 161.)

Mexico–United States of America

Exchange of notes constituting an agreement concerning the loan of waters of the Colorado River for irrigation of lands in the Mexicali Valley, Mexico, 24 August 1966^{64, 65}

83. By this exchange of notes, the United States agreed to release to Mexico, during the months of September and December 1966, in addition to the waters of the Colorado River allocated to Mexico annually under article 10 of the Water Treaty signed in Washington on 3 February 1944,⁶⁶ a specified quantity of water of the said river to relieve the critical shortage of water available for irrigation of lands in the Mexicali Valley. The same quantity of water was to be retained by the United States—either in 1967 or, depending on factors specified in the notes exchanged, over a period of three years including 1967—from its annual scheduled deliveries to Mexico under the 1944 Water Treaty. Mexico agreed to reimburse the United States at market value for any actual decrease in power generation at either Hoover or Glen Canyon Power Plant, caused by the loss of power head resulting from the release of the said quantity of water. This

⁶² Came into force on 11 October 1966.

⁶³ Canada, *Treaty Series*, 1966, No. 22.

⁶⁴ Came into force on 24 August 1966.

⁶⁵ United Nations, *Treaty Series*, vol. 606, p. 251.

⁶⁶ See p. 80 above, document A/5409, paras. 211 and 214.

Agreement was not to be regarded as a precedent for deliveries of water in the future in addition to the waters of the Colorado River allotted to Mexico annually under article 10 of the 1944 Treaty.

Argentina–Uruguay

Protocol concerning the delimitation and marking of the Argentine–Uruguayan boundary line in the River Uruguay, signed at Buenos Aires on 16 October 1968^{67, 68}

84. *Delimitation of the boundary line.* Pursuant to the Treaty on Boundaries, signed on 7 April 1961,⁶⁹ the Mixed Boundary Commission, composed of technical representatives of both Parties and established on 12 July 1968, shall be responsible for delimiting and marking the boundary line and islands in the River Uruguay (art. 1). The common costs shall be defrayed in equal proportions by the two Governments (art. 4).

85. *Settlement of disputes.* If a dispute arises concerning the delimitation and marking of the boundary line and islands in the River Uruguay, the Mixed Boundary Commission shall leave the action to be taken to the decision of the Parties' Ministries of Foreign Affairs. If they fail to agree, the case shall be submitted to an expert from a third country, who shall be designated by agreement between the Governments of both Parties (art. 7).

86. *Facilities granted to the Mixed Boundary Commission.* The Parties agree to grant transport facilities and absolute freedom of entry and transit to the members and auxiliary personnel of the Commission and to exempt from customs duty all items required by the Commission (art. 8).

Argentina–Paraguay

Agreement for the regulation, channelling, dredging, buoyage and maintenance of the River Paraguay, signed at Asunción on 15 July 1969^{70, 71}

87. *Establishment of a Mixed Executive Technical Commission. Composition. Functions.* The purpose of the Agreement is to establish a Mixed Executive Technical Commission for the "regulation, channelling, dredging, buoyage and maintenance of the River Paraguay". The Commission shall be composed of representatives of each country. It shall plan and execute the works to which the Agreement relates. In particular, as an immediate step, it shall maintain a minimum determined depth at the baseline in the section of the river from Confluencia to Asunción. It shall initiate immediately the necessary technical studies for achieving greater depths in the future (arts. I, II, IV, VII).

88. *Facilities granted to the Commission and its personnel.* Materials, equipment, machinery and instruments for the execution of the works to which the Agreement relates shall not be subject to taxes or customs duties and shall be exempt from any other levy. Personnel of the Commission shall enjoy migratory facilities and free passage (art. VI).

89. *Studies and surveys to be carried out.* With a view to carrying out the studies and works referred to in the Agreement, appropriate topographic and hydrological surveys, surveys of the river-bed and of the amounts of sediment and matter in suspension and surveys relating to pollution and climatology, etc. shall be made (art. IX).

90. *Apportionment of costs.* The Agreement determines the apportionment of the costs entailed by the works pertaining to regulation, channel-correction, dredging, deepening and maintenance of the river (art. VIII).

91. *Rights of sovereignty of the Parties.* The works pertaining to regulation, channel-correction, dredging, deepening of the river, and so forth, shall in every case be carried out along the channel which is in the circumstances most efficient and convenient for navigation, even though this may necessitate the abandonment of the normal channel; the foregoing shall in no way whatsoever affect the rights of sovereignty of each Party (art. XIII).

Mexico–United States of America

Treaty to resolve pending boundary differences and maintain the Rio Grande and Colorado River as the international boundary, signed at Mexico City on 23 November 1970^{72, 73}

92. *Restoration of the Rio Grande as an international boundary.* In order to resolve pending boundary cases and to restore to the Rio Grande its character of international boundary, the Parties agree to modify the position of this river in certain reaches, in accordance with the terms of the Treaty (art. I A, B and C), so as to transfer certain areas of land specified in the Treaty from one side of the river to the other.

93. *Execution and costs of the changes in location of the Rio Grande.* The changes in location of the Rio Grande shall be executed by the International Boundary Commission⁷⁴ as soon as practical in accordance with the engineering plans recommended by it and approved by the two Governments. The costs of these changes in location shall be equally divided between the two Governments, through an appropriate division of work recommended by the Commission in the same engineering plans. On the date on which the two Governments approve the Commission's Minute confirming the completion of the relocation of the channel of the Rio Grande, the change of location of the international boundary shall be effected in each case and the middle of the new channels of the Rio Grande and the present channel north of the Horcon Tract and north of the Beaver Island shall become the international boundary; and the consequential territorial adjustments defined in the Treaty shall take place (art. I E and F).

94. *Delineation of the international boundary.* The Parties agree that, except as provided in the Treaty, from the date on which the Treaty enters into force, the international

⁶⁷ Came into force on 16 October 1968.

⁶⁸ United Nations, *Treaty Series*, vol. 671, p. 55.

⁶⁹ *Ibid.*, vol. 635, p. 91.

⁷⁰ Came into force on 18 November 1969.

⁷¹ United Nations, *Treaty Series*, vol. 709, p. 311.

⁷² Came into force on 18 April 1972.

⁷³ *United States Treaties and other International Agreements*, vol. 23 (1972) (Washington, D.C., U.S. Government Printing Office, 1973), part 1, p. 371.

⁷⁴ Established under the Convention between the United States and Mexico, signed at Washington on 1 March 1889: see p. 76 above, document A/5409, paras. 184–185.

boundary between them in the limitrophe sections of the Rio Grande and the Colorado River shall run along the middle of the channel occupied by normal flow and, where either of the rivers has two or more channels, along the middle of the channel which in normal flows has the greater or greatest average width over its length, and from that time forward, this international boundary shall determine the sovereignty over the lands on one side or the other of it, regardless of the previous sovereignty over these lands (art. II A).

95. *Provisions concerning the problems brought about by changes in the limitrophe channels of the Rio Grande and the Colorado River.* When the Rio Grande or the Colorado River moves laterally eroding one of its banks and depositing alluvium on the opposite bank, the international boundary shall continue to follow the middle of the channel occupied by the normal flow or, when there are two or more channels, it shall follow the middle of the channel which in normal flow has the greatest average width over its length.

96. Where, through other movements, the river separates a tract from a country, two procedures are provided for, depending on the acreage and number of inhabitants of the tract. In the case of a smaller tract, the Government of the country concerned may choose to restore the river to its prior location at his expense; otherwise, the tract will pass to the other country and the Commission will create in favour of the country losing territory a credit to be cancelled either when the river naturally cuts land of equal acreage to its side of the river or in a future project to straighten or rectify the same river. In the case of a larger tract, the Commission will restore the acreage to the country from which it is cut either where the cut is made or at a more advantageous place in the same section of the river, with the two Governments sharing the cost equally (art. III).

97. *Preservation of the boundary channels.* In order to reduce to a minimum the shifting of the channels of the Rio Grande and the Colorado River in their limitrophe sections, and the problems that would be caused by the separation of the tracts of land, the Parties agree to the following:

(a) *Protection of banks against erosion.* Each Party, in the limitrophe sections of both rivers, may protect its bank against erosion and, where either of the rivers has more than one channel, may construct works in the channels that are completely within its territory in order to preserve the character of the limitrophe channel. The works to be executed should not adversely affect the other Party through the deflection or obstruction of the normal flow of the river or of its flood flows (art. IV A).

(b) *Works in the main channel of the river.* Both in the main channel of the river and on adjacent lands to a distance on either side of the international boundary recommended by the Commission and approved by the two Governments, each Party shall prohibit the construction of works in its territory which, in the judgement of the Commission, may cause deflection or obstruction of the normal flow of the river or of its flood flows. If the Commission should determine that any of the works constructed by one of the Parties in the channel of the river or within its territory causes such adverse effects on the territory of the other Party, the

Government of the Party that constructed the works shall remove them or modify them and, by agreement of the Commission, shall repair or compensate for the damages sustained by the other Party (art. IV B).

(c) *Recommendations of the Commission.* The Commission shall recommend to the two Governments the execution of works it may consider advisable for improvement and stabilization of the channels of both rivers in their limitrophe sections, including among others the following measures: clearing, channel excavations, bank protection and rectifications. The Commission's recommendations shall include an estimate of the costs of construction, operation and maintenance of the works, and a proposal for the division of the work and costs between the Parties (art. IV C).

98. *Transfer of lands and improvements from one Party to the other.* The lands and improvements which, upon relocation of the international boundary under the provisions of the Treaty, are transferred from one Party to the other, shall pass to the respective Party in absolute ownership, free of any private titles or encumbrances of any kind; compensation to the owners of the lands to be transferred shall be the responsibility of the delivering Party. No payments shall be made between the two Governments for value of the lands and improvements transferred from one Party to the other as a result of the change of location of the international boundary (art. VI A).

99. *Facilities for the construction and operation of the works required for the implementation of the Treaty.* All materials, implements, equipment and repair parts intended for the construction, operation and maintenance of the works required to carry out the provisions of the Treaty shall be exempt from taxes relating to imports and exports. The personnel employed on the construction, operation or maintenance of such works shall be permitted to pass freely from one country to the other for the purpose of going to and from the place or location of the works, without any immigration restrictions, passports, or labour requirements (art. VI C).

Argentina-Paraguay

Agreement concerning a study of the utilization of the resources of the River Paraná, signed at Buenos Aires on 16 June 1971^{75, 76}

100. *Establishment of the Paraguayan-Argentine Mixed Commission for the River Paraná. Composition. Functions.* A Mixed Commission, composed of one delegate from each Party, shall be established for the purpose of undertaking a study and evaluation of the technical and economic possibilities of utilizing the resources of the River Paraná in the section bordering the two countries, from the junction with the River Paraguay to the mouth of the Iguassu. The Mixed Commission shall not deal with matters falling within

⁷⁵ No information is available regarding the entry into force of this Agreement.

⁷⁶ Original Spanish text in *Rios y Lagos Internacionales (Utilización para fines Agrícolas et industriales)*, 4th ed., rev., OEA/Ser.I/VI, CIJ-75 rev.2 (Washington, D.C., Organization of American States, 1971), pp. 511 (a)-511 (d).

the terms of reference of the Joint Paraguayan–Argentine Commission for Yacyretá–Apipé, established under the Agreement of 23 January 1958⁷⁷ (arts. I and II). The Parties shall, by exchange of notes, agree on the Mixed Commission's programme of work and rules of procedure (art. VI).

101. *Decisions of the Commission.* The decisions of the Mixed Commission shall be adopted jointly by the delegates of the two Parties. Any doubtful or disputed matters shall be submitted to the Governments of the Parties for their consideration (art. III).

102. *Submission to the Parties of technical progress reports on the studies undertaken.* The Mixed Commission shall, quarterly, submit to the Parties technical progress reports on the studies undertaken. The final report shall, in addition, contain any recommendations which the Mixed Commission deems it advisable to submit to the Governments (art. V).

103. *Costs.* Common costs involved in the operation of the Mixed Commission shall be shared equally by the two Governments (art. VII).

104. *Facilities granted to the Commission and its members.* The members of the Mixed Commission and their technical assistants shall, in connexion with the work they are to carry out, be allowed free entry into the territory of either country in the areas involving such work (art. VIII). Vessels, provisions, apparatus and operating equipment of the Mixed Commission, together with those for personal use by the persons referred to above, may be transported duty-free between the territories of the two countries (art. IX). The Mixed Commission shall be exempt from taxes and charges on official documents (art. X). Members of the Mixed Commission and their assistants domiciled in the territory of either Party shall pay taxes applicable to their fees or salaries under the relevant legislation solely to the State of domicile. The same rule shall apply in respect to contributions for superannuation or other social benefits payable by such persons (art. XI).

105. *Confirmation of the principles enunciated in the Act of Asunción.* The Parties confirm their adherence to the principles enunciated in the Act of Asunción on the Utilization of International Rivers adopted at the Fourth Meeting of the Ministers for Foreign Affairs of the Countries of the River Plate Basin (art. XII).⁷⁸

Canada–United States of America

Agreement on the Great Lakes Water Quality, signed at Ottawa on 15 April 1972^{79, 80}

NOTE. In 1964, the Governments of Canada and the United States asked the International Joint Commission⁸¹ to make a complete study of pollution problems in the lower

⁷⁷ See paras. 65–68 above.

⁷⁸ See para. 326 below.

⁷⁹ Came into force on 15 April 1972.

⁸⁰ Summary supplied by the Canadian Government. The text of the Agreement will be reproduced in United Nations, *Treaty Series*, vol. 837.

⁸¹ Established by the Boundary Waters Treaty of 1909 (see p. 73 above, document A/5409, paras. 164–165; see also *Legislative texts and treaty provisions . . . (op. cit.)*, p. 260).

Great Lakes and the International Section of the St. Lawrence River, and to recommend measures to restore and protect water quality in these lakes. In 1965, the International Joint Commission engaged leading scientists and experts from the two Parties as advisors. In 1970, the Commission submitted a report containing comprehensive recommendations for pollution control programmes and other measures.⁸² The Agreement on Great Lakes Water Quality is based on the Commission's findings and recommendations. The Agreement sets out a series of general and specific "water quality objectives" for the Great Lakes. These describe the target condition of the water—conditions agreed by both countries to be desirable—which are goals of the programmes.

106. *General and specific water quality objectives.* The Parties adopted the following *general water quality objectives* for the boundary waters of the Great Lakes System. These waters should be:

(a) Free from substances that enter the waters as a result of human activity and that will settle to form putrescent or otherwise objectionable sludge deposits, or that will adversely affect aquatic life or waterfowl;

(b) Free from floating debris, oil, scum and other floating materials entering the waters as a result of human activity in amounts sufficient to be unsightly or deleterious;

(c) Free from materials entering the waters as a result of human activity producing colour, odour or other conditions in such a degree as to create a nuisance;

(d) Free from substances entering the waters as a result of human activity in concentrations that are toxic or harmful to human, animal or aquatic life;

(e) Free from nutrients entering the waters as a result of human activity in concentrations that create nuisance growths of aquatic weeds and algae (art. II). Annex I to the Agreement sets forth a number of *specific water quality objectives* which are adopted for the boundary waters of the Great Lakes System (art. III, para. 1). New or modified specific objectives may be subsequently adopted (art. III, paras. 2 and 3).

107. *Maintenance of the existing levels of the water quality.* All reasonable and practicable measures shall be taken to maintain the levels of water quality existing at the date of entry into force of the Agreement in those areas of the boundary waters of the Great Lakes System where such levels exceed the specific water quality objectives (art. III, para. 4).

108. *Consistency of water quality standards and other regulatory requirements of the Parties with the achievement of the water quality objectives.* Water quality standards and other regulatory requirements of the Parties shall be consistent with the achievement of the water quality objectives. The Parties shall use their best efforts to ensure that water quality standards and other regulatory requirements of the State and Provincial Governments shall

⁸² For the text of these recommendations, see International Joint Commission, Canada and United States, *Pollution of Lake Erie, Lake Ontario and the International Section of the St. Lawrence River* (Washington, D.C., U.S. Government Printing Office, 1970), pp. 149 *et seq.*

similarly be consistent with the achievement of the water quality objectives (art. IV).

109. *Programmes and other measures to be developed and implemented.* Programmes and other measures directed toward the achievement of the water quality objectives shall be developed and implemented as soon as practicable in accordance with legislation in the two countries. Unless otherwise agreed, such programmes and other measures shall be either completed or in process of implementation by 31 December 1975. They shall include programmes and other measures for the abatement and control of pollution from: municipal, industrial and shipping sources; agricultural, forestry and other land use activities; dredging activities; onshore and offshore facilities (art. V, para. 1). The Parties shall develop and implement such additional programmes as they jointly decide are necessary and desirable for the achievement of water quality objectives (art. V, para. 2).

110. *Responsibilities of the International Joint Commission.* The International Joint Commission shall assist in the implementation of the Agreement and shall be given, *inter alia*, the following responsibilities (art. VI):

(a) Collation, analysis and dissemination of data and information supplied by the Parties and State and Provincial Governments relating to the quality of the boundary waters of the Great Lakes System and to pollution that enters the boundary waters from tributary waters;

(b) Collection, analysis and dissemination of data and information concerning the water quality objectives and the operation and effectiveness of the programmes and other measures established pursuant to the Agreement;

(c) Tendering of advice and recommendations to the Parties and to the State and Provincial Governments on problems of the quality of the boundary waters of the Great Lakes System, including specific recommendations concerning the water quality objectives, legislation, standards and other regulatory requirements, programmes and other measures, and intergovernmental agreements relating to the quality of these waters;

(d) Provision of assistance in the co-ordination of the joint activities envisaged by the Agreement, including such matters as contingency planning and consultation on special situations;

(e) Provision of assistance in the co-ordination of Great Lakes water quality research, including identification of objectives for research activities, tendering of advice and recommendations concerning research to the Parties and to the State and Provincial Governments and dissemination of information concerning research to interested persons and agencies;

(f) Investigations of such subjects related to Great Lakes water quality as the Parties may from time to time refer to it.

111. *Establishment of joint institutions.* The International Joint Commission shall establish a Great Lakes Water Quality Board to assist it in the exercise of the powers and responsibilities assigned to it under the Agreement. Such Board shall be composed of an equal number of members from Canada and the United States. The Commission shall also establish a Research Advisory Board in accordance

with the terms of reference attached to the Agreement. The members of the Great Lakes Water Quality Board and the Research Advisory Board shall be appointed by the Commission after consultation with the appropriate government or governments concerned. In addition, the Commission shall have the authority to establish as it may deem appropriate such subordinate bodies as may be required to undertake specific tasks, as well as a regional office, which may be located in the basin of the Great Lakes System, to assist it in the discharge of its functions under the Agreement (art. VII).

112. *Co-operation of the Parties in case of a special pollution problem.* When a Party becomes aware of a special pollution problem that is of joint concern and requires an immediate response, it shall notify and consult the other Party forthwith about appropriate remedial action (art. IX, para. 2).

113. *Comprehensive review of the operation and effectiveness of the Agreement.* The Parties shall conduct a comprehensive review of the operation and effectiveness of the Agreement during the fifth year after its coming into force. Thereafter, further comprehensive reviews shall be conducted upon the request of either Party (art. IX, para. 3).

114. *Existing rights and obligations.* Nothing in the Agreement shall be deemed to diminish the rights and obligations of the Parties as set forth in the Boundary Waters Treaty (art. XI).

Argentina-Uruguay

Treaty on the River Plate and its maritime outlet, done on 19 November 1973^{83, 84}

115. *Purposes.* The Parties concluded this Treaty for the purposes of legally defining the exercise of their equal rights in the River Plate and of determining the extent and exercise of their rights in their respective maritime jurisdictions.

(a) Provisions relating to the River Plate

116. *Division of the waters.* A band of exclusive jurisdiction is established, adjacent to the shore on each side of the river, and of seven or two nautical miles in width, according to the zone. The remaining waters of the River shall be considered as being for common use (art. 2).

117. *Execution of works.* When either Party intends to construct new channels, to modify or significantly alter existing channels or to execute any other works, it shall so inform the Administrative Commission, which shall determine whether the project is likely to result in significant damage to the régime of the River. If it is so decided, or if no agreement is reached on the matter, the Party concerned shall notify the other Party of the plan through the said Commission (art. 17).

118. *Bed and subsoil of the River. Deposits.* The Parties shall have the right to explore and exploit the resources of the bed and subsoil of the River, in the zones adjacent to their respective shores as far as a specified line defined in

⁸³ Came into force on 12 February 1974.

⁸⁴ Text provided by the Argentine Government.

the Treaty (art. 41). Where a deposit extends on both sides of the aforementioned line, it shall be exploited in such a way that the distribution of the quantities of the resource extracted from the said deposit is proportionate to the amount of the deposit situated on the respective sides of the said line. Each Party shall conduct the exploitation of the deposits existing in such conditions without causing significant damage to the other Party and in accordance with the requirements of full and rational exploitation of the resource, according to the criterion defined in the preceding sentence (art. 43).

119. *Fishing and conservation of living resources.* Each Party shall have the exclusive right to fish in its respective coastal band. Beyond the coastal bands, the Parties mutually recognize the right of vessels of their flags to fish in the River (art. 53). The Parties shall agree on the measures to regulate fishing activities in the River with a view to the conservation and preservation of living resources; when the intensity of fishing so necessitates, they shall agree on the catch limits for each species and on the appropriate periodic adjustments to be made. Such catch limits shall be apportioned equally between the Parties (arts. 54 and 55). The Parties shall regularly exchange relevant information on fishing activities and catches for each species and on the register of vessels authorized to fish in the waters designated for common use (art. 56).

120. *Execution of scientific studies and research.* Each Party shall have the right to carry out scientific studies and research on any part of the River, provided that it gives prior notice to the other Party, indicating the nature of the activities, and informs it of the results obtained. In addition, each Party shall be entitled to participate in all phases of any study or research undertaken by the other Party. The Parties shall promote the execution of joint scientific studies of common interest and, in particular, studies relating to the comprehensive survey of the River Plate (arts. 57 and 58).

121. *Pollution*

(a) *Definition and obligations.* The Treaty defines pollution as the direct or indirect introduction by man into the aquatic environment of substances or energy producing harmful effects. Each Party undertakes to protect and preserve the aquatic environment, and in particular, to prevent its pollution, by enacting appropriate regulations and adopting appropriate measures, in accordance with the applicable international conventions and, where relevant, in conformity with the guidelines and recommendations of the international technical organizations. The Parties undertake not to reduce, in their respective legal provisions, either the existing technical requirements intended to prevent the pollution of the waters, or the severity of the established penalties for infringements, and undertake to inform one another of any regulation which they intend to impose in connexion with the pollution of the waters (arts. 47–50).

(b) *Liability.* Each Party shall be liable to the other for damage resulting from pollution caused by its own activities or by those of natural or juridical persons domiciled in its territory; the jurisdiction of each Party in respect of any violation committed with regard to pollution shall be exercised without prejudice to the rights of the other Party to

obtain compensation for any damage which it may have suffered as a result of the same violation. To this end, there shall be mutual co-operation between the Parties (arts. 51 and 52).

122. *River Plate Administrative Commission.*

(a) *Composition, legal status and statute.* A mixed commission is established to be known as the River Plate Administrative Commission, and composed of an equal number of representatives of each of the Parties. It shall enjoy legal status for the performance of its duties and shall be provided with the necessary resources and all means and facilities essential for the discharge of its functions. The Commission may establish such technical organs as it deems necessary, shall function as a permanent body and shall be provided with the appropriate Secretariat (arts. 59–61). The Parties shall agree, through an exchange of notes, on the statute of the Commission, which shall determine its own rules of procedure (art. 62).

(b) *Privileges and immunities.* The headquarters of the Commission shall be accorded inviolability, together with other privileges established by international law (art. 63). The Commission, at the appropriate time shall conclude with both Parties the agreements specifying the privileges and immunities accorded, under international practice, to the members and staff of the Commission (art. 64).

(c) *Decisions and functions.* For the adoption of decisions of the Commission, each delegation shall have one vote (art. 65). The functions of the Commission shall be, *inter alia*: (i) to promote the joint execution of scientific studies and research, with special reference to the evaluation, conservation, preservation and rational exploitation of living resources and the prevention and elimination of pollution and any other harmful effects resulting from the use, exploration and exploitation of the waters of the River; (ii) to prescribe measures for the regulation of fishing activities in the River to ensure the conservation and preservation of living resources (art. 66).

123. *Conciliation procedure.* Any dispute which may arise between the Parties in connexion with the River Plate shall be considered by the Administrative Commission, on the proposal of either of the Parties (art. 68). If after 120 days the Commission is unable to reach an agreement, it shall so notify both Parties, which shall endeavour to settle the question through direct negotiation (art. 69).

(b) *Provisions relating to the maritime outlet*

124. *Line of division.* The lateral maritime boundary and the boundary of the continental shelf between the Parties shall be the median line, determined by the adjacent coast method, extending from the mid-point of the base-line constituted by the imaginary straight line joining Punta del Este (Uruguay) with Punta Rasa on Cabo San Antonio (Argentina) (art. 70).

125. *Exploitation of deposits.* Any deposit which extends on both sides of this boundary shall be exploited in such a way that the distribution of the quantities of the resource extracted from the said deposit is proportionate to the amount of the deposit situated on the respective sides of the said boundary. Each Party shall conduct the exploita-

tion of the deposits existing in such conditions without causing significant damage to the other State and in accordance with the requirements of full and rational exploitation of the resource, according to the criterion defined in the preceding sentence (art. 71).

126. *Fishing.* The Parties agreed to establish a common fishing zone, beyond the 12 nautical miles measured from the corresponding coastal base-lines, for duly registered vessels of their flags. The said zone is that demarcated by two arcs of 200 nautical miles radius, the centres of which are located at Punta del Este (Uruguay) and at Punta Rasa on Cabo San Antonio (Argentina) respectively. The catch limit for each species shall be apportioned equitably, in proportion to the fishery resources contributed by each of the Parties, as evaluated on the basis of scientific and economic criteria. The volume of any catch made by vessels of third flags with the authorization of one of the Parties shall be charged against the quota allocated to the said Party. These regulations shall not apply to aquatic mammals (arts. 73, 74 and 77).

127. *Execution of scientific studies and research.* Each Party shall authorize the other to carry out studies and research of an exclusively scientific nature in their respective maritime jurisdictions within the common zone defined in the preceding paragraph, provided that sufficient advance notice has been given and information provided as to the nature of the studies or research to be carried out, the areas in which they are to be conducted and their duration. The authorizing Party shall have the right to participate in all phases of such studies and research and to be informed of and provided with the results (art. 79).

128. *Pollution.* The depositing of hydrocarbons resulting from the washing of tanks, the emptying of bilges and of ballast and, in general, any other act capable of causing pollution, within a specified area defined in the Treaty, shall be prohibited (arts. 78).

129. *Joint Technical Commission*

(a) *Composition, legal status and statute.* A Joint Technical Commission composed of an equal number of representatives of each Party shall be established, the functions of which shall be to carry out studies and to adopt and coordinate plans and measures relating to the conservation, preservation and rational exploitation of living resources and to the protection of the marine environment in the common zone. It shall have legal personality for the performance of its functions and shall be provided with the funds necessary for that purpose. The Parties shall agree, through an exchange of notes, on the statute of the Commission, which shall determine its own rules of procedure (arts. 80, 81 and 84).

(b) *Functions.* The functions of the Commission shall be, *inter alia*:

- (i) To determine the catch limits for each species, to apportion them to the Parties and to adjust them periodically;
- (ii) To promote the joint execution of scientific studies and research, particularly within the common zone, with special reference to the evaluation, conservation, preservation and rational exploitation of

living resources and to the prevention and elimination of pollution and any other harmful effects resulting from the use, exploration and exploitation of the marine environment;

- (iii) To make recommendations and to submit proposals on ways of ensuring the continued efficacy and equilibrium of the bio-ecological systems;
- (iv) To enact regulations and measures for the rational exploitation of species in the common zone and for the prevention and elimination of pollution;
- (v) To formulate plans for the preservation, conservation and development of living resources in the common zone, and to submit them for consideration by the respective Governments;
- (vi) To promote studies and submit proposals for harmonizing the legislation of the Parties on matters within the Commission's area of competence (art. 82).

(c) *Settlement of disputes*

130. Any dispute relating to the interpretation or application of the Treaty which cannot be settled by direct negotiation may be submitted by either of the Parties to the International Court of Justice. In those cases dealt with under "Conciliation procedure"⁸⁵ either Party may submit any dispute concerning the interpretation or application of the Treaty to the International Court of Justice if it has proved impossible to settle the said dispute within a specified period (art. 87).

C. Asia

BILATERAL TREATIES

China-Pakistan

Boundary Agreement, signed at Peking on 2 March 1963^{86, 87}

131. *Delimitation of the boundary between China's Sinkiang and the contiguous areas. Water boundary lines.* In view of the fact that the boundary between China's Sinkiang and the contiguous areas, the defence of which is under the actual control of Pakistan, has never been formally delimited, the two Parties agree to delimit it on the basis of the traditional customary boundary line, including natural features, and in a spirit of equality, mutual benefit, and friendly co-operation (art. 1). The Parties have agreed that: (1) wherever the boundary follows a river, the middle line of the river bed shall be the boundary line, and that (2) wherever the boundary passes through Daban (Pass), the water-parting line thereof shall be the boundary line (art. 3).

132. *Establishment of a Joint Boundary Demarcation Commission. Composition. Functions.* The two Parties have agreed to set up, as soon as possible, a Joint Boundary Demarcation Commission. Each side shall appoint a

⁸⁵ See para. 123 above.

⁸⁶ Came into force on the date of its signature (art. 7).

⁸⁷ American Society of International Law, *International Legal Materials* (Washington, D.C.), vol. II, No. 3 (May 1963), p. 541.

Chairman, one or more members and a certain number of advisers and technical staff. The Joint Boundary Commission is charged with the responsibility, in accordance with the provisions of the Agreement, to hold concrete discussions and carry out the following tasks jointly: (a) to conduct necessary surveys of the boundary area on the ground, as stated in article 2 of the Agreement, so as to set up boundary markers at places considered to be appropriate by the two Parties and to delineate the boundary line on the jointly prepared accurate maps; (b) to draft a Protocol setting forth in detail the alignment of the entire boundary line and location of all the boundary markers and get printed detailed maps to be attached to the Protocol with the boundary line and the boundary markers shown on them (art. 4, para. 1).

133. *Settlement of disputes.* The two Parties have agreed that any dispute concerning the boundary which may arise after the delimitation of the boundary line actually existing between the two countries shall be settled peacefully by the two sides through friendly consultations (art. 5).

D. Europe

1. MULTILATERAL TREATIES

France–Germany (Federal Republic of)–Luxembourg

Protocol, signed at Paris on 20 December 1961^{88, 89}

134. *Establishment, composition and functions of the International Commission for the Protection of the Moselle against Pollution.* The Parties establish an International Commission for the Protection of the Moselle against Pollution. It is composed of delegates appointed by the Parties. Its purpose is to institute co-operation between the competent departments of the three Governments with a view to protecting the waters of the Moselle against pollution. To this end, it may: (a) make preparations for and arrange the execution of all research necessary to determine the nature, amount and origin of pollution, and utilize the results of such research; and (b) propose to the Parties measures to ensure the protection of the Moselle against pollution (arts. 1–3).

135. *Commission sessions and decisions.* The Commission holds a regular session once a year. It meets in special session when convened by the Chairman at the request of one of the Parties (art. 5). The Commission's decisions are adopted on a basis of unanimity (art. 7).

136. *Liaison with competent bodies.* The Commission, as it deems necessary, establishes liaison with all bodies competent in the questions of water pollution (art. 9).

137. *Settlement of disputes.* Disputes concerning the application or interpretation of the Protocol are to be settled in accordance with the provisions of chapter VII of the Convention concerning the canalization of the Moselle of 27 October 1956 (art. 11).⁹⁰

⁸⁸ Came into force on 1 July 1962.

⁸⁹ *Verträge der Bundesrepublik Deutschland—Serie A: Multilaterale Verträge*, vol. 18 (Bonn, Carl Heymanns Verlag, 1964), No. 213.

⁹⁰ See p. 115 above, document A/5409, paras. 474–480.

France–Germany (Federal Republic of)–Luxembourg– Netherlands–Switzerland

Agreement concerning the International Commission for the Protection of the Rhine against Pollution (with protocol of signature), signed at Berne on 29 April 1963^{91, 92}

138. *Co-operation for the protection of the Rhine against pollution.* The Parties undertake to pursue their co-operation in protecting the waters of the Rhine below the Untersee, through the International Commission for the Protection of the Rhine against Pollution (art. 1).

139. *Functions of the International Commission for the Protection of the Rhine against Pollution.* The Commission, composed of delegations appointed by the Parties (art. 3), has the following functions (art. 2):

(a) It makes preparations for and arranges the execution of all research necessary to determine the nature, amount and origin of pollution in the Rhine, and utilizes the results of such research;

(b) It proposes to the Parties measures for the protection of the Rhine against pollution;

(c) It drafts a basis for possible arrangements among the Parties for the protection of the waters of the Rhine;

(d) It is competent to deal with all other matters referred to it by mutual agreement among the Parties.

140. *Commission sessions and decisions.* The Commission holds a regular session once a year. It meets in special session when convened by the Chairman at the request of two delegations (art. 5). The Commission's decisions must be adopted unanimously (art. 6).

141. *Liaison with competent bodies or institutions.* For the purpose of research and utilization of the results of such research, the Commission may avail itself of the services of any scientific institution offering every guarantee of independence (art. 8). It may have recourse to the services of competent individuals or bodies, for the purpose of considering special questions (art. 90). It co-operates with the international commissions for the Rhine and its tributaries, and takes decisions on co-operation with other organizations responsible for water protection (art. 10).

Austria–Germany (Federal Republic of)–Switzerland

Agreement (with Final Protocol) regulating the withdrawal of water from Lake Constance, signed at Berne on 30 April 1966^{93, 94}

142. *Elements to be taken into consideration in connexion with water withdrawals.* Each riparian State shall, in withdrawing water, endeavour to take due account of the legitimate interests of the other riparian States. Where a projected withdrawal of water from Lake Constance is such that it would adversely affect important interests of the other riparian States⁹⁵ and the adverse effects cannot be

⁹¹ Came into force on 1 May 1965.

⁹² Text provided by the French Government.

⁹³ Came into force on 25 November 1967.

⁹⁴ United Nations, *Treaty Series*, vol. 620, p. 191.

⁹⁵ The Final Protocol to the Agreement specifies that:

“No consideration shall be given to interests which may suffer adverse effects as a result of the utilization of the water in question

(Continued on next page.)

avoided or offset by reasonable compensatory measures or indemnification, the interest attaching to the withdrawal of water shall be duly assessed in relation to the other interests. In that assessment particular consideration shall be given to the interest attaching to the maintenance and improvement of living and economic conditions in the region of Lake Constance. This shall apply especially to the interests involved in the various types of utilization of the water of the lake, in navigation, in fishing, in the regulation of the lake, in the landscape preservation and in the power production. Withdrawals of water shall not be deemed to justify any claim to the provision of water in a specific volume or of a specific quality (art. 1, para. 2 and art. 3, paras. 1 and 2).

143. *Compensation for damage.* Where withdrawals of water result in unforeseen damage for which reparation must be made under international law, the riparian States shall reach agreement on the nature and extent of the reparation. Where the combined effect of a number of withdrawals of water makes it necessary, under the relevant provisions of the Agreement, to take compensatory measures, pay an indemnity or make reparation, each riparian State shall participate in such measures, indemnification or reparation in proportion to the amount of water it has withdrawn (arts. 4 and 5).

144. *Right to express views concerning water withdrawals and notification of such withdrawals.* In specific cases defined in the Agreement, the riparian States shall, before authorizing withdrawals of water, afford one another in good time an opportunity to express their views. In all other cases, the riparian States shall notify one another forthwith of all withdrawals of water (arts. 6 and 7).

145. *Pollution.* The measures to be taken in order to keep the waters of Lake Constance clean shall be governed by the Agreement of 27 October 1960 concerning the protection of Lake Constance against pollution⁹⁶ (art. 3, para. 3).

146. *Settlement of disputes (Consultative committee—Arbitration commission).* Where, in the course of an expression of views regarding withdrawals of water, objections are raised, the case shall be submitted to a consultative committee for consideration at the technical level with a view to preparing the way for an agreement. The consultative committee shall be composed of one representative of each of the riparian States. In case no agreement is reached through discussions in the consultative committee, agreement shall be sought through the diplomatic channel, and if no agreement is reached through the diplomatic channel, any interested riparian State may require that the case should be submitted to an arbitration commission, the composition of which is provided for in the Agreement. The arbitration commission shall endeavour, at every stage of the proceedings, to bring about an amicable settlement of

the case. If it does not prove possible to achieve such a settlement, the commission shall adopt by majority vote a decision, which shall be final and binding upon all the riparian States. The arbitration commission shall base its proposals and its decisions for a settlement on: the provisions of the Agreement; any relevant agreements of a general or special nature in force between the riparian States; the general principles of law (arts. 8–11).

Belgium–Denmark–France–Germany (Federal Republic of)–Italy–Luxembourg–Netherlands–Switzerland–United Kingdom of Great Britain and Northern Ireland

European Agreement on the restriction of the use of certain detergents in washing and cleaning products, done at Strasbourg on 16 September 1968^{97, 98}

147. *Measures to be adopted.* The Parties, considering that it is becoming increasingly necessary to secure harmonization of the laws on the control of fresh water pollution to protect effectively (a) the supply of water for the population, for industry, for agriculture and for other business occupations, (b) the natural aquatic fauna and flora and (c) the enjoyment of places devoted to leisure and sport, undertake to adopt measures as effective as possible in the light of the available techniques, including legislation if it is necessary, to ensure that: (a) in their respective territories, washing or cleaning products containing one or more synthetic detergents are not put on the market unless the detergents in the product considered are, as a whole, at least 80 per cent susceptible to biological degradation; (b) the appropriate measurement and control procedures are implemented in their respective territories (preamble and art. 1).

148. *Multilateral consultations.* The Parties shall every five years, or more frequently if one of the Parties should so request, hold multilateral consultations within the Council of Europe to examine the application of the Agreement, and the advisability of revising it or extending any of its provisions. These consultations shall take place at meetings convened by the Secretary-General of the Council of Europe (art. 3).

2. BILATERAL TREATIES

Bulgaria–Romania

Agreement concerning the maintenance and improvement of the fairway in the Romanian–Bulgarian sector of the Danube, signed in Sofia on 29 November 1955^{99, 100}

149. *Respective responsibilities of the Parties with regard to the maintenance and improvement of the Danube fairway.* Under the Agreement, each of the Parties is responsible for a specific segment (approximately 235 km long) of the sector of the Danube which constitutes the frontier between the two countries. Maintenance is to be carried out by the competent authorities of both States in the spirit of the

(Footnote 95 continued)

when there is not a sufficient causal link between the adverse effects and the actual withdrawal of the water. Thus, for example, objections to a withdrawal of water may not be based on the fact that the utilization of water may strengthen the economy of a particular region and thereby adversely affect the interests of one of the riparian States."

⁹⁶ See p. 110 above, document A/5409, paras. 435–438.

⁹⁷ Came into force on 16 February 1971.

⁹⁸ Text provided by the French Government. Reproduced in Council of Europe, *European Treaty Series*, No. 64 (October 1968).

⁹⁹ No information is available regarding the entry into force of this Agreement.

¹⁰⁰ Text provided by the Romanian Government.

Convention of 18 August 1948 concerning the régime of navigation on the Danube¹⁰¹ and the decisions and recommendations of the Danube Commission (arts. 1 and 2).

150. *Planning and execution of hydraulic engineering works.* With respect to the planning and execution of the hydraulic engineering works for the regulation of the sectors concerned of the Danube River the Agreement entrusts the responsibility thereof to the specialized bodies of the States in whose national waters such works are needed. The technical solutions for the works whose purpose is to improve navigation conditions in the Romanian-Bulgarian sector and whose effect is to alter the state or water régime of the river in that sector shall be decided upon in consultation with the other Party. With respect to the measures necessary to prevent floods resulting from ice on the Danube, each Party shall act in accordance with a prearranged joint plan of action (art. 6).

151. *Gauging operations and hydrographic studies.* In connexion with the maintenance of the fairway each Party shall be required to undertake depth-gauging operations and hydrographic studies and determine the direction and speed of the current in the portion assigned to it for maintenance in the Romanian-Bulgarian sector of the Danube (art. 11).

152. *Establishment of the Mixed Romanian-Bulgarian Commission for the maintenance and improvement of the fairway. Composition. Functions.* To co-ordinate hydraulic engineering activities, the Agreement establishes a Mixed Romanian-Bulgarian Commission, composed of plenipotentiary representatives of the two Parties, which is to hold regular sessions twice a year and functions in accordance with the regulations annexed to the Agreement. The Commission is competent to: draw up proposals for general and long range plans relating to the improvement of navigation conditions in the Romanian-Bulgarian sector of the Danube, to be submitted for approval by the competent authorities of the two States; draw up and propose the annual plans for the works to be undertaken by each Party in the sectors in question; propose joint measures for the prevention of floods in the Romanian-Bulgarian sector of the Danube; make proposals concerning the extent of reciprocal exchanges of data and information of a technical nature, needed in connexion with the hydraulic engineering works for the maintenance and improvement of navigation conditions in the Romanian-Bulgarian sector of the Danube; review the technical solutions for the regulatory hydraulic engineering works carried out in the Romanian-Bulgarian sector of the Danube and affecting the régime of the river in that sector; verify the fulfilment of the obligations devolving upon each Party under the Agreement (arts. 7 and 8).

153. *Reciprocal exchanges of current information and transmittal of hydrographic plans.* Reciprocal exchanges of current information on the state of the fairway in the Romanian-Bulgarian sector of the Danube and the reciprocal transmittal of hydrographic plans for the sectors

in question is to be effected directly between the competent authorities of the two States, in compliance with the laws in force in each State concerning the circulation of such data and documents (art. 10).

154. *Provisions concerning the movement of equipment and personnel.* The Agreement contains provisions concerning the movement of equipment and personnel outside the confines of national waters for the execution of works (arts. 12, 13 and 14).

155. *Settlement of disputes.* Disputes arising in connexion with the implementation of the Agreement which cannot be settled by the Mixed Romanian-Bulgarian Commission shall be submitted through the competent authorities to the two Governments for their joint settlement (art. 15).

Romania-Union of Soviet Socialist Republics

Agreement extending the provisions of the Romanian-Soviet Convention of 25 December 1952, concerning measures to prevent floods and to regulate the water régime of the River Prut, to the Rivers Tisza, Suceava and Siret and their tributaries and to the irrigation and drainage canals forming or intersecting the Romanian-Soviet frontier, signed at Bucharest on 31 July 1957^{102, 103}

156. The Parties, desiring to prevent floods and to ensure the proper regulation of the water régime and system of irrigation and drainage canals in the Romanian-Soviet frontier regions, have decided to extend the provisions of the Convention between them concerning measures to prevent floods and to regulate the water régime of the River Prut, signed on 25 December 1952,¹⁰⁴ to the rivers Tisza, Suceava and Siret and their tributaries and to the irrigation and drainage canals forming or intersecting the Romanian-Soviet frontier (art. 1).

Czechoslovakia-Poland

Agreement concerning the use of water resources in frontier waters, signed at Prague on 21 March 1958^{105, 106}

157. *Definition of the term "frontier waters".* For the purposes of the Agreement, "frontier waters" means: sections of watercourses along which the frontier between the two States runs and bodies of standing water intersected by the State frontier; surface and ground waters flowing from the territory of one State to the territory of the other, at those places where they are intersected by the State frontier (art. 2, para. 1).

158. *Questions governed by the Agreement.* The Agreement governs questions relating to the use of water resources in frontier waters, in particular: technical and economic measures which bring about any change in the water régime; discharge of flood waters, drifting of ice, pollution abatement, and conservation of natural resources in relation to the water economy (art. 2, para. 2).

¹⁰² Came into force on 31 July 1957.

¹⁰³ Text provided by the Romanian Government.

¹⁰⁴ See p. 152 above, document A/5409, para. 791.

¹⁰⁵ Came into force on 7 August 1958.

¹⁰⁶ United Nations, *Treaty Series*, vol. 538, p. 89.

¹⁰¹ See p. 115 above, document A/5409, paras. 470-473.

159. *Preservation of frontier waters*

(a) *Works affecting the water economy.* Neither Party may, without the consent of the other Party, carry out any works in frontier waters which may affect the latter Party's water economy (art. 3, para. 1).

(b) *Amount of water to be taken and runoff ratios to be preserved in the frontier waters.* The Parties shall come to agreement on the amount of water to be taken from frontier waters for domestic, industrial, power generation and agricultural requirements, on the discharge of waste water, and on what runoff ratios are to be preserved in frontier waters (art. 3, paras. 2 and 3).

(c) *Pollution.* The Parties have agreed to abate the pollution of frontier waters and to keep them clean to such extent as is specifically determined in each particular case in accordance with the economic and technical possibilities and requirements of the two States (art. 3, para. 4).

160. *Water resources development.* The Parties shall co-operate in drawing up joint comprehensive plans for water resources development in areas where the interests of the two States in such developments coincide or interact (art. 4). Within the framework of their economic plans, the Parties shall come to agreement on the terms, type and method of financing of river training works and water-use structures and facilities on frontier waters, and on the operation and maintenance of such works, structures and facilities and their protection against floods. The Parties shall come to agreement on the manner in which projected works are to be carried out (art. 5).

161. *Timber floating.* The entire width of frontier watercourses may be utilized by the Parties for the floating of timber. However, the floating of timber must not cause any damage to the hydraulic works, installations or other structures of the other Party (art. 6).

162. *Measurements to be taken by the Parties for the achievement of the purposes of the Agreement*

(a) Permission for the use of frontier waters and for the extraction of sand, gravel, stone or other materials from the beds of frontier watercourses shall be granted by the parties in accordance with their legal provisions and under conditions agreed upon between them (art. 7).

(b) The Parties shall exercise control over work carried out under the Agreement, over the diversion of water and over the extraction of material from stream beds, and shall inspect the quality of the water (art. 8, para. 1 (a)).

(c) The Parties shall provide each other with information on hydrological research and with reports on various hazards and on water-level forecasts, and will exchange the texts of important legal provisions relating to the use of water resources (art. 8, para. 1 (b)-(d)).

(d) In order that the tasks arising out of the Agreement may be carried out, each Party shall appoint a plenipotentiary (art. 9).

163. *Privileges and facilities granted for work on frontier waters.* Persons engaged in activities provided for in the Agreement may cross the State frontier, subject to the conditions specified in the annex to the Agreement.

Materials required for work on frontier waters and items for the personal use of the workers shall be exempt when transported across the State frontier from import and export permit requirements and from customs duties and other charges (art. 11).

Romania—Union of Soviet Socialist Republics

Agreement extending the Convention of 25 December 1952, concerning measures to prevent floods and to regulate the water régime of the River Prut, to the frontier sector of the River Danube, from the mouth of the River Prut to the Black Sea, signed at Bucharest on 15 October 1959^{107, 108}

164. The Parties, desiring to devise a rational arrangement for the management of water in the floodlands in the frontier sector of the River Danube, for the development of agriculture, pisciculture and reed cultivation and for the protection of such land against inundation by high water from the River Danube, have decided to extend the provisions of the Convention between them concerning measures to prevent floods and to regulate the water régime of the River Prut, signed on 25 December 1952,¹⁰⁹ to the frontier sector of the River Danube from the mouth of the River Prut to the Black Sea (art. 1).

Germany (Federal Republic of)—Netherlands

Treaty concerning arrangements for co-operation in the Ems Estuary (Ems-Dollard Treaty), signed at The Hague on 8 April 1960^{110, 111}

165. *Co-operation in a spirit of good-neighbourliness.* The Parties, bearing in mind their common interests and having due regard to the special interests of the other contracting Party, shall co-operate in the Ems Estuary in a spirit of good-neighbourliness, in accordance with the Treaty, for the purpose of ensuring that their ports have such access to the sea as they may at any time require. This objective shall be attained—subject to the maintenance by both Parties of their legal positions with respect to the course of the international frontier—through the medium of practical arrangements with respect to questions affecting both States (art. 1). The co-operation of the Parties in a spirit of good-neighbourliness shall also extend to questions not expressly regulated in the Treaty which may arise in the Ems Estuary and which may affect common interests (art. 48).

166. *Maintenance and improvement of the fairways. Preparation of a Joint Plan.* The Parties undertake, in accordance with the provisions of the Treaty, to take all necessary measures to keep fairways open and, if necessary, improve them, and to give their support to measures of the same kind taken by the other Party. They undertake to refrain from any measures detrimental to that purpose (art. 2). With a view to furthering the

¹⁰⁷ Came into force on 15 October 1959.

¹⁰⁸ Provided by the Romanian Government.

¹⁰⁹ See p. 152 above, document A/5409, para. 791.

¹¹⁰ Came into force on 1 August 1963.

¹¹¹ United Nations, *Treaty Series*, vol. 509, p. 2.

co-operation between them, the Parties shall draw up a "Joint Plan" which shall incorporate the results of consultations and investigations for the large-scale improvement of the existing fairways and of any new fairways in the Ems Estuary. The Parties shall at all times adapt the Joint Plan to scientific knowledge, to the needs of their ports and to the needs of their economies (art. 2).

167. *Land-reclamation and diking works.* The Parties shall carry out land-reclamation and diking works in the Dollard only by agreement (art. 5).

168. *Hydraulic works.* The Federal Republic of Germany shall carry out all hydraulic works for the maintenance and improvement of the main fairway, the Emden fairway and the Upper Ems. It shall also carry out any other hydraulic works in the main fairway which are in the interests of the German ports (art. 8). The Kingdom of the Netherlands shall carry out all hydraulic works for the maintenance and improvement of the channels between the Netherlands ports and the main fairway, including works directly connected therewith in the adjacent part of the main fairway. It shall also carry out any other hydraulic works in the main fairway which are in the interests of the Netherlands ports (art. 9). The hydraulic works falling under both articles 8 and 9 shall be carried out by the Federal Republic of Germany (art. 10).

169. *Payment of costs.* Each Party shall bear the costs of those works and measures which it is entitled or required to carry out or to take under the terms of the Treaty. The Parties may agree upon a different apportionment of costs (arts. 16 and 17).

170. *River-police functions. Law applicable.* The Kingdom of the Netherlands shall be responsible for river-police functions relating to specific areas of the Ems Estuary. In the remainder of the Ems Estuary, river-police functions shall be the responsibility of the Federal Republic of Germany (art. 19). River-police functions shall include the supervision and protection of hydrological conditions, the state of the fairways, and works and installations in the Ems Estuary, and supervision of the use of the Ems Estuary by third parties (art. 20, para. 1). River-police functions shall not include the supervision of shipping, fishing or hunting (art. 20, para. 3). In carrying out river-police functions, each Party shall apply its own laws and regulations (art. 21).

171. *Notifications and complaints.* If one of the Parties intends to carry out or permit new hydraulic works, it shall notify the Ems Commission as soon as possible before the initiation of the works. The same shall apply to river-police measures which may affect the interests of the other Party (art. 22). Either Party may within a reasonable period of time lodge with the Ems Commission a complaint against any works or measures whether proposed or already under way, or against any failure to undertake such works or measures (art. 23).

172. *The Netherlands-German Ems Commission. Composition. Functions.* The Parties shall establish a permanent Netherlands-German Ems Commission. Each Government shall appoint as Commissioners three experts (art. 29). The Commission has the following functions: to deliberate on questions relating to hydraulic works, sea-marks, the

river police, surveys, soundings and hydrological investigations, land reclamation, diking works, coastal conservation, and the taking of sand, gravel and shells; to inspect the fairways and sea-marks and report to the Governments on the results of its inspections; make recommendations to the Governments; advise on all questions referred to it by the Governments; and receive notifications and examine complaints concerning the carrying out of new hydraulic works (art. 30).

173. *Fishing regulations (Common fishing area).* The Treaty defines a common fishing area where fishermen from both Parties shall be permitted on equal terms to fish. Outside the common fishing area, the fishing rights for fishermen from both countries shall remain unaffected (art. 41).

174. *Hunting regulations.* The Treaty contains provisions concerning seal hunting in a specified area. It specifies the matters which shall be regulated annually by mutual agreement (the maximum kill, the maximum number of hunters, the dates of the hunting season and hunting rules) (art. 42).

175. *The international frontier in the Ems Estuary.* The Treaty specifies that its provisions shall not affect the question of the course of the international frontier in the Ems Estuary and that each Party reserves its legal position in this respect. Either Party may refer the question of the course of the international frontier in the Ems Estuary to the International Court of Justice for settlement, or may submit it to arbitration in the manner provided for by the Convention of Arbitration and Conciliation between Germany and the Netherlands, signed at The Hague on 20 May 1926¹¹² (art. 46).

176. *Settlement of disputes (Arbitral Tribunal).* An arbitral tribunal shall be established, to the exclusion of other contractual provisions for the settlement of disputes, for the settlement of all disputes between the Parties relating to the interpretation or application of the Treaty. The arbitral tribunal shall be composed of a permanent president and four assessors appointed for each individual case. The Treaty contains provisions concerning the appointment of the president and the assessors, as well as the procedure before the arbitral tribunal. The arbitral tribunal shall base its decisions on the provisions of the Treaty and on the general rules of international law (arts. 50-53).

Germany (Federal Republic of)-Netherlands

Agreement to accept the compulsory jurisdiction of the International Court of Justice in disputes concerning the interpretation or application of the revised Convention on Rhine navigation, 1868 (Convention of Mannheim), signed at The Hague on 8 April 1960^{113, 114}

177. Pursuant to this Agreement, disputes which may have arisen or may arise between the two Parties concerning the interpretation or application of the Revised Convention

¹¹² League of Nations, *Treaty Series*, vol. LXVI, p. 103.

¹¹³ Came into force on 1 August 1963.

¹¹⁴ United Nations, *Treaty Series*, vol. 509, p. 2.

on Rhine Navigation, signed on 17 October 1868,¹¹⁵ as later amended, may be submitted for settlement to the International Court of Justice by both Parties on the basis of a special agreement, or by one of them by application. Such disputes shall not be subject to the provisions of the Convention of Arbitration and Conciliation between Germany and the Netherlands signed at The Hague on 20 May 1926.¹¹⁶

Poland–Union of Soviet Socialist Republics

Treaty concerning the régime of the Soviet–Polish State frontier and co-operation and mutual assistance in frontier matters (with Protocol), signed at Moscow on 15 February 1961^{117, 118}

178. *Frontier line (Course of the frontier on frontier waters)*. In sectors where it runs over land, and also where it crosses standing or running waters, the frontier shall extend in an immovable straight line from one frontier mark to the next. In sectors where it follows watercourses, the frontier shall be a movable straight, broken or crooked line, likewise running from one frontier mark to the next; on navigable rivers the frontier shall follow the middle of the main fairway (thalweg) and on unnavigable rivers, streams and canals, the middle thereof or the middle of the main branch (art. 3). On navigable rivers, the course of the frontier line shall vary with the natural displacement of the middle of the main fairway (thalweg). On unnavigable rivers and streams, the course of the frontier line shall vary with the displacement of the middle of such rivers and streams caused by natural changes in the configuration of their banks (art. 4). Those sectors of rivers, streams, canals along which the frontier line runs, and lakes and ponds which are crossed by the frontier line shall be deemed to be frontier waters (art. 12, para. 1).

179. *Use of frontier waters (Respect of the rights and interests of the other Party)*. Each Party shall take appropriate steps to ensure that, in the use of frontier waters, the rights and interests of the other Party are respected (art. 12, para. 2).

180. *Maintenance of frontier waters*. The Parties shall be careful to ensure that the frontier waters are kept in good condition and to respect each other's rights and interests in such waters, and shall take steps to prevent wilful damage to the banks of frontier rivers, lakes and canals. Where a Party occasions material damage to the other Party by failing to meet these requirements, compensation for such damage shall be paid by the Party responsible therefor (art. 16, paras. 1 and 2).

181. *Removal of obstacles to the natural flow of waters*. The position and direction of frontier watercourses must so far as possible be preserved unchanged. To this end the competent authorities of the Parties shall jointly take the necessary steps to remove any obstacles which may cause displacement of the beds of frontier rivers, streams or canals or which may obstruct the natural flow of water,

navigation and timber-floating along them. If joint works must be undertaken for this purpose, the appropriate authorities of the Parties shall decide how the works are to be executed. The expenses involved shall be divided equally between them unless a special agreement is concluded on this question (art. 16, para. 3).

182. *Strengthening of banks*. In order to prevent displacement of the beds of frontier rivers, streams or canals, their banks should be strengthened wherever the competent authorities of the Parties jointly find this necessary. Such works shall be executed and their cost defrayed by the Party to which the bank belongs (art. 16, para. 4).

183. *Correction of the bed of frontier rivers or streams*. Should a frontier river or stream shift its bed spontaneously or as a result of some natural phenomenon, the Parties must correct the bed by joint action if this is found necessary by their competent authorities (art. 16, para. 5).

184. *Régime of frontier waters*. The natural flow of water in frontier watercourses and in adjacent areas which are inundated during periods of high water must not be altered or obstructed to the detriment of the other Party by the erection or reconstruction of installations or structures in the water or on the banks, or in any other way (art. 17, para. 1). The competent authorities of the Parties shall agree upon the method of regulating drainage into and the division of water from frontier waters and upon all other questions relating to the water régime (art. 17, para. 2).

185. *Cleaning of frontier waters*. Frontier waters shall be cleaned out in sectors where the competent authorities of the Parties jointly find it necessary. In such cases the cost of cleaning shall be divided equally between the two Parties. In sectors situated wholly in the territory of one Party but belonging to waters which, in the other sectors, are frontier waters, cleaning shall be carried out by that Party at its own expense. When the frontier watercourses are cleaned out, the earth and stones removed must be dumped at such a distance from the bank and levelled in such a way as to preclude any danger of subsidence of the bank, obstruction of the bed, or any obstruction to drainage during periods of high water (art. 18).

186. *Pollution*. The competent authorities of the Parties shall take steps to keep the frontier waters clean by making it unlawful to poison or pollute them with chemicals or refuse from factories or industrial establishments, to steep flax or hemp in them, or otherwise to contaminate them (art. 19).

187. *Provisions concerning installations*

(a) *Preservation and use of existing installations*. Existing bridges, dams, sluices, dikes and similar installations on frontier watercourses shall be preserved and may be used, with the exception of those whose removal is found necessary by the appropriate authorities of the two Parties. If the reconstruction or removal of any of the installations on frontier watercourses becomes necessary, entailing a change in the water-level in the territory of the other Party, such work may be undertaken only after that Party's consent has been obtained (art. 20, paras. 1 and 2).

¹¹⁵ See p. 116 above, document A/5409, paras. 482–483.

¹¹⁶ For reference, see foot-note 112.

¹¹⁷ Came into force on 20 September 1961.

¹¹⁸ United Nations, *Treaty Series*, vol. 420, p. 161.

(b) *Construction of new installations.* No new bridges, dams, sluices, dikes or other hydraulic installations may be erected or used on frontier watercourses except by agreement between the Parties (art. 20, para. 3).

188. *Exchange of information to avert danger from floods or from drifting ice.* The competent authorities of the Parties shall exchange information concerning the level and volume of water and ice conditions in frontier waters, if such information may help to avert danger from floods or from drifting ice. Delay in communicating or failure to communicate such information shall not constitute grounds for a claim to a compensation for damage caused by floods or drifting ice (art. 21).

189. *Floating of timber.* Timber-floating may be freely carried out by both Parties throughout the length of the frontier watercourses, including places where both banks belong to one and the same Party. The Treaty contains provisions on the dates and sequence of operations for launching and floating timber and on the conditions under which timber-floating may be carried out. In cases where the floated timber is stripped of its bark, the bark removed must not be allowed to fall into frontier watercourses (art. 22–24).

190. *Supplementary special agreements.* Supplementary special agreements may be concluded on questions relating to the procedure for the use of frontier waters, the maintenance thereof, the floating of timber down frontier watercourses and co-operation in hydrometeorological matters (art. 25).

191. *Fishing in frontier waters.* Residents of each Party may fish in frontier waters up to the frontier line in accordance with the regulations in force in their respective territories but shall be prohibited from using explosive, poisonous or narcotic substances or other means which cause the destruction and mutilation of fish (art. 31).

192. *Frontier Commissioners.* Each Party shall appoint Frontier Commissioners. The Commissioners of the two Parties shall co-operate with one another in performing the duties arising out of the provisions of the Treaty (art. 35, paras. 1 and 2).

193. *Claims for damages.* The Frontier Commissioners shall examine and settle all questions relating to claims for damages. Decisions taken jointly by the Frontier Commissioners in settlement of any case of irregularity occurring at the frontier shall be binding and final and shall take effect upon signature of the protocol on the questions examined. The Treaty determines the claims for damages which shall be submitted to the Parties through the diplomatic channel (art. 44).

France–Germany (Federal Republic of)

Protocol concerning the establishment of an International Commission for the Protection of the Saar against Pollution, signed at Paris on 20 December 1961^{119, 120}

194. *Establishment, composition and functions of the International Commission for the Protection of the Saar*

against Pollution. The Parties established an International Commission for the Protection of the Saar against Pollution. The Commission is composed of delegates appointed by the Parties. Its purpose is to institute co-operation between the competent departments of the two Governments, with a view to protecting the waters of the Saar against pollution. To this end, it may: (a) make preparations for and arrange the execution of all research necessary to determine the nature, amount and origin of pollution, and utilize the results of such research; and (b) propose to the Governments of the Parties measures to ensure the protection of the Saar against pollution. It also deals with any other matters which the Governments of the Parties, by joint agreement, refer to it (arts. 1–3).

195. *Commission sessions and decisions.* The Commission holds a regular session once a year. It meets in special session when convened by the Chairman at the request of the Government of one of the Parties (art. 5).

196. *Liaison with competent bodies.* The Commission, as it deems necessary, establishes liaison with all bodies competent with regard to the question of water pollution (art. 9).

197. *Settlement of disputes.* Disputes concerning the application or interpretation of the Protocol are to be settled by the Parties through the diplomatic channel (art. 11).

Germany (Federal Republic of)–Netherlands

*Supplementary Agreement to the Treaty concerning arrangements for co-operation in the Ems Estuary (Ems–Dollard Treaty) (with protocol and exchange of notes)*¹²¹ signed at Bennekom on 14 May 1962^{122, 123}

198. *Prospecting for and extraction of natural resources (Co-operation in a spirit of good-neighbourliness).* The Parties shall co-operate in a spirit of good-neighbourliness with respect to all questions in connexion with prospecting for and the extraction of natural resources underlying the Ems Estuary which may affect their interests (art. 2). The term “natural resources” means all solid, liquid or gaseous underground substances for extraction of which, under the mining legislation of one of the two Parties, a concession is required (art. 1).

199. *Deposits of petroleum, natural gas and other natural resources present in the frontier area.* The provisions of the Agreement concerning prospecting for and extraction of natural resources shall apply to deposits of petroleum and natural gas present in the frontier area before the commencement of extraction and to other substances recovered in the course of extraction. The Parties shall make arrangements in a separate agreement for the application of these provisions to other natural resources in the frontier area (art. 3). The term “frontier area” means the area hatched on a map annexed to the Agreement, together with the ground beneath it and the term “line” means the line marked in green on the map bisecting the frontier area lengthwise (art. 1).

¹¹⁹ Came into force on 1 July 1962.

¹²⁰ France, *Journal officiel de la République française, Lois et décrets* (Paris), 25 August 1962, 94th year, No. 200, p. 8364.

¹²¹ See paras. 165–176 above.

¹²² Came into force on 1 August 1963.

¹²³ United Nations, *Treaty Series*, vol. 509, p. 2.

200. *Law applicable in the frontier area.* Netherlands law shall apply on the Netherlands side of the line and German law shall apply on the German side of the line to: prospecting and extraction; connected acts and omissions; and installations erected for prospecting and extraction purposes (art. 4, para. 1).

201. *Granting of concessions for prospecting and extraction purposes.* The Parties may, in accordance with their domestic law, grant concessions valid for the whole of the frontier area. Such concessions may be utilized only in accordance with the terms of the Agreement. The Parties shall notify each other of the concessions already in existence and when new concessions are granted, or when concessions are amended or revoked (art. 4, paras. 2 and 3). The term "concessionaire" means a person who has authorization to prospect for or to extract natural resources (art. 1). The Agreement contains provisions concerning concessions, the rights and obligations of German and Netherlands concessionaires, and the settlement of disputes (arts. 5-11).

France-Switzerland

Convention concerning the protection of the waters of Lake Geneva against pollution, signed at Paris on 16 November 1962^{124, 125}

202. *Co-operation with a view to protecting the waters of Lake Geneva against pollution.* The Parties agree to co-operate closely in order to protect from pollution the waters of Lake Geneva and of its effluent to the point at which it leaves Swiss territory, including the surface water and ground water of their tributaries in so far as these contribute to polluting the waters of Lake Geneva and its effluent (art. 1).

203. *Establishment and functions of the International Commission for the Protection of the Waters of Lake Geneva against Pollution.* A Commission composed of delegates appointed by the Parties is established (arts. 2 and 4), with the following functions (art. 3):

(a) It organizes and arranges the execution of all research necessary to determine the nature, amount and origin of pollution, and utilizes the results of such research;

(b) It recommends to the Parties measures to remedy the existing pollution and to prevent any pollution in the future;

(c) It may prepare the basis for a set of international rules governing health standards for the waters of Lake Geneva;

(d) It considers all other matters related to pollution of the waters.

204. *Commission sessions and decisions.* The Commission's decisions are to be adopted unanimously (art. 5). The Commission holds a regular session once a year. It meets in special session when convened by the Chairman at the request of one of the Parties (art. 6).

205. *Liaison with competent international bodies.* The Commission, as it deems necessary, establishes liaison

with international bodies competent in the question of water pollution, and also with those competent, in respect of Lake Geneva and the Rhone, in the question of navigation, fisheries and water drainage regulation (art. 9).

NOTE. As a result of recommendations drawn up by the International Commission for the Protection of the Waters of Lake Geneva against Pollution at a meeting held on 6 November 1970, the following provisions relating to the *financing of a study and research programme for the protection of the waters of Lake Geneva against pollution* were adopted by an exchange of letters between France and Switzerland, signed at Paris on 7 and 21 October 1971:

The Swiss Federal Council and the Government of the French Republic shall draw up a five-year research and study plan for the period 1971-1975, relating to acoustic investigation of Lake Geneva and, in particular, to the origin of phosphorus, prospective biology, currents within the Lake and the distribution of higher aquatic flora. Switzerland will provide 75 per cent, and France 25 per cent, of the funds for the execution of this programme and for administrative expenses incurred by the Commission in supervising it. On the basis of the current parity, the two States shall accordingly contribute 3 million Swiss francs and 1,359,937 French francs respectively; the contributions shall be forwarded to the Commission by each of the two States at the end of each calendar year. The total amount shall be administered by the Commission, which may, as a matter of priority, allocate the funds supplied by each State to laboratories in that State and modify the application of its research and studies programme. The Commission shall also, during the same period, execute and co-ordinate studies and work relating to the determination of the sanitary condition of the Lake and the improvement of the quality of its waters. The Commission's recommendation that efforts to provide the Lake Geneva basin with water purification plants should be pursued, in order to ensure that, in the course of the five-year programme, the greater part of the waters of the basin are upgraded, is also approved . . . subject to the domestic procedures required by law.

Greece-Turkey

Protocol concerning the final elimination of differences concerning the execution of hydraulic operations for the improvement of the bed of the River Meriç-Evros carried out on both banks, signed at Ankara on 19 January 1963^{126, 127}

206. *Flood protection. Modifications to the frontier line.* Because of the construction work designed to provide protection against flooding caused by the rising of the water level of the River Meriç-Evros, the frontier line is modified in certain areas. The Protocol lays down the rights and obligations of the Parties with regard to the construction or strengthening of dikes and the installation of drainage systems and pumping stations.

207. *Technical matters.* The Protocol authorizes the Parties to proceed with the construction of certain closures and summer dikes. It also provides that the Parties shall each carry out planimetric and hypsometric checks of all dikes and "fuse plugs" constructed or under construction (arts. 15 to 18).

208. *Work carried out without the prior agreement of the Parties.* The Protocol enumerates the work carried out, both by Greece and by Turkey without the prior agreement

¹²⁴ Came into force on 1 November 1963.

¹²⁵ Text provided by the French Government.

¹²⁶ Came into force on 10 August 1963.

¹²⁷ Text provided by the Greek Government.

of the Parties. The Protocol provides, *inter alia*, that no work which might affect the course of the river in its high-water bed should be carried out unless the relevant plans have been exchanged and that all matters relating to such work must be settled by the Regional Technical Commissions of the two Parties (art. 19).

209. *Improvement of the river bed.* Recognizing the need to proceed with the improvement of the bed of the river in the sector between the end of the Ferrai (Ferres) valley and the beginning of the Enez (Ainos) valley, the Parties agreed that the improvements would be carried out on the basis of plans drawn up by an *Ad Hoc* Joint Commission and that, after the plans have been approved by the two Parties, work on correcting the bed of the river could be begun on both sides, either jointly or separately. At the same time, it was agreed that each of the Parties would have the right to undertake the whole of such operations alone and subsequently to obtain from the other Party reimbursement of one half of the expenses incurred (art. 20).

210. *Water withdrawal, quantity and supervision.* With a view to making use of the waters of the River Meriç-Evros in a manner beneficial to both Parties, it was agreed, *inter alia*: that water flow measurement, both at existing stations and at stations to be constructed, would be continued by both Parties; that the formulation of studies and projects relating to water withdrawal works would be continued by both Parties; that water withdrawal installations for irrigations would take the form either of diversion dams constructed jointly by the two Parties, or of water withdrawal stations on one of the banks, constructed by the Party concerned with the prior agreement of the other Party; and that, pending the achievement of the above, water withdrawal for irrigation purposes would continue as in the past (art. 21).

Belgium-Netherlands

Treaty concerning the connexion between the Scheldt and the Rhine, signed at The Hague on 13 May 1963^{128, 129}

211. *Improvement of the connexion between the Scheldt and the Rhine. Works to be carried out.* In order to improve the connexion between the Scheldt and the Rhine, the Treaty provides for the establishment of a specified navigable waterway (art. 2) and lists the works to be carried out for the purpose of establishing it, such as the making of arrangements in the interest of the water economy, including the prevention of salinization and of water pollution (arts. 3 and 4).

212. *Planning and execution of the works.* The Parties shall be responsible, each in its own territory, for the planning and execution of the works envisaged, and for these purposes they shall follow the procedure customary in the country in question for the execution of similar State works (art. 6). The two officials, designated by the Netherlands Minister and the Belgian Minister respectively, who are in charge of managing and supervising the planning

and execution of the works in Netherlands and Belgian territory respectively shall consult together regularly on all questions of mutual interest that may arise in connexion with such planning and execution (art. 7). Specifications and contracts for the execution of works shall in theory be subject to prior approval by both the competent Ministers (art. 8).

213. *Measures relating to the water economy.*

(a) *Maintenance of the water level.* The Parties shall, each in its own territory, adopt the necessary measures to ensure that the water level of the canal running from the Antwerp harbour system to the Eastern Scheldt is maintained so far as possible at the level envisaged in the Treaty (art. 15).

(b) *Measures to prevent salinization and water pollution.* In view of the interests in the drinking-water supply and in water consumption for agricultural and industrial purposes which will be affected by the fresh-water basin to be formed in the waters of South Holland and Zeeland, every effort shall be made to prevent salinization of the said basin as a result of the use of the navigable waterway—in particular, of the system of locks referred to in the Treaty. Installations for that purpose shall be provided in and near the said system of locks, and the Netherlands shall take all necessary measures for the maintenance and operation of the said installations. The Parties are in agreement, on the one hand, that the need to safeguard these interests makes it undesirable that the quantity of fresh water in the basin in question should be diminished through any withdrawal of water therefrom as a precaution against salinization and, on the other hand, that Belgian interests in the drinking-water supply and in water consumption for agricultural and industrial purposes should equally be taken into account. In view of the said Netherlands interests, Belgium shall ensure the supply of a quantity of fresh water equal to the quantity withdrawn from the fresh-water basin for the purpose of preventing salinization, in so far as this is compatible with reasonable protection of the said Belgian interests and provided that the Netherlands does not indicate that a smaller quantity will suffice. Within five years after the date of signature of the Treaty, the two competent Ministers shall agree on a settlement concerning the application of these arrangements. The said settlement shall cover *inter alia* the quantity and quality of the fresh water to be supplied by Belgium to the Netherlands. If the Ministers fail to reach agreement within the time-limit fixed, either of the Parties may request the Arbitration Board to dictate, with regard to the question in dispute, the settlement in question. The two Ministers shall make arrangements and adopt measures to prevent any floating refuse, oil or other flotsam from entering the system of locks referred to in the Treaty. Without prejudice to the obligations laid on the Parties by multilateral treaties, the competent Ministers shall ensure that the water of the canal running from the Antwerp harbour system to the eastern Scheldt meets the standards of quality which they shall fix. They shall communicate to each other, in connexion with existing or future installations which discharge liquid and/or solid radioactive waste into the section of the canal situated in the respective

¹²⁸ Came into force on 23 April 1965.

¹²⁹ United Nations, *Treaty Series*, vol. 540, p. 3.

country, all particulars necessary to determine the degree of radioactive contamination of the canal water resulting from such discharge (arts. 16 and 17).

214. *Apportionment of costs. Payments.* The Treaty regulates the apportionment of the costs of the planning and execution of the works in Belgian territory and in Netherlands territory (arts. 19 to 25). It also specifies the arrangements for payments (arts. 26 to 31).

215. *Settlement of disputes.* There shall be instituted an Arbitration Board whose function, to the exclusion of any other jurisdiction, shall be to rule in all disputes that may arise between the Parties with regard to the interpretation or application of the Treaty. The Arbitration Board, whose composition, procedure and specific powers are laid down in an annex to the Treaty, shall base its decisions on the provisions of the latter and the general rules of public international law. It shall, if need be, decide *ex aequo et bono* in the cases specified by the Treaty (art. 42).

Hungary-Romania

Treaty concerning the régime of the Hungarian-Romanian State frontier and co-operation in frontier matters signed at Budapest on 13 June 1963^{130, 131}

216. *Frontier line (Course of the frontier on frontier waters).* In sectors where it crosses standing or running waters, the frontier shall, as a rule, extend in a straight line from one frontier mark to the next. In sectors where it follows watercourses, the frontier shall proceed variously in a straight, broken or crooked line as follows: on unnavigable rivers, streams, ditches and canals, it shall follow the middle of the watercourse in question or the middle of the main branch; on navigable rivers, it shall follow the middle of the main fairway. Islands in frontier rivers shall be deemed to be part of the territory of one Party or the other according to their position in relation to the frontier line (art. 3). On navigable rivers, the course of the frontier shall vary with the natural changes occurring in the middle of the main fairway, except in one case specified by the Treaty. On unnavigable rivers, streams and canals, the course of the frontier shall vary with the displacement of the middle of such rivers, streams and canals caused by natural changes in the configuration of their banks (art. 4, paras. 1 and 2). Those sectors of rivers, streams and canals along which the frontier line runs shall be deemed to be frontier waters (art. 13, para. 1).

217. *Use of frontier waters.* The Parties shall take the necessary steps to ensure that, in the use of frontier waters, the provisions of the Treaty as well as all special regulations drawn up by agreement between the Parties are compiled with (art. 13, para. 2).

218. *Maintenance of frontier waters.* The Parties shall ensure that the frontier waters are kept in good condition and shall take steps to prevent wilful damage to their banks (art. 16, para. 1).

219. *Removal of obstacles to the natural flow of the waters.* The position and direction of frontier watercourses must, in so far as possible, be preserved unchanged. The Parties shall, by agreement, take the necessary steps to remove any obstacles which may cause displacement of the beds of frontier rivers or streams or a change in the position of canals or which obstruct the natural flow of water (art. 16, para. 2).

220. *Strengthening of banks.* In order to prevent displacement of the beds of frontier rivers, streams or canals, their banks must be strengthened wherever the Parties consider it necessary. Such works shall be executed and their cost defrayed by the Party to which the bank belongs (art. 16, para. 3).

221. *Correction of the bed of rivers, streams or canals.* Where a frontier river, stream or canal shifts its bed spontaneously or as a result of some natural phenomenon, the Parties must jointly and on the basis of equality undertake the work of correcting the bed if that is found necessary (art. 16, para. 4).

222. *Régime of frontier waters.* The natural flow of water in frontier watercourses and in adjacent areas which are inundated during periods of high water must not be altered or obstructed to the detriment of the other Party by the erection or reconstruction of installations or structures in the water or on the banks (art. 17, para. 1). Questions relating to the flow of other waters into frontier waters and the diversion of water therefrom as well as other questions relating to the régime of frontier waters shall be settled in conformity with special regulations drawn up by agreement between the two Parties (art. 17, para. 2).

223. Provisions concerning installations

(a) *Preservation and use of existing installations.* Bridges, dams and similar structures on frontier watercourses shall be preserved and may be used, with the exception of those whose demolition is found necessary by the Parties. If the reconstruction or demolition of any of such structures becomes necessary and such reconstruction or demolition will entail a change in the water level in the territory of the other Party, such work may be undertaken only after that Party's consent has been obtained (art. 18, paras. 1 and 2).

(b) *Construction of new installations.* No new bridges, dams, sluices, dikes or other hydraulic installations on the frontier watercourses may be erected or used on frontier watercourses except by agreement between the Parties (art. 18, para. 3).

224. *Exchange of information to avert danger from floods or drifting ice.* The Parties shall transmit to each other in good time any information concerning the level of water and ice conditions in frontier waters if such information may serve to avert danger from floods or drifting ice. Delay in transmitting, or failure to transmit such information shall not constitute grounds for a claim to compensation for damage caused by floods or drifting ice (art. 20).

225. *Floating of timber.* The Parties may freely engage in the floating of timber throughout the length of the frontier watercourses (art. 21, para. 1). The Treaty contains

¹³⁰ Came in force on 4 June 1964.

¹³¹ United Nations, *Treaty Series*, vol. 576, p. 275.

provisions on the dates and sequence of operations for launching and floating timber and on the conditions under which timber floating may be carried out (art. 21, para. 2 and art. 22). The Parties shall take steps to ensure that, in cases where the floating timber is stripped of its bark, the material resulting from such stripping is not deposited in the bed of frontier water-courses (art. 23, para. 2).

226. *Fishing.* Residents of the two Parties may fish in their own waters up to frontier lines in accordance with the regulations in force in their own territory, but shall be prohibited from using explosive, poisonous or narcotic substances capable of causing the mass destruction of fish, and from fishing in frontier waters at night. The Parties may conclude special agreements concerning the protection and development of fish-breeding in frontier waters, the prohibition of fishing for particular species of fish in certain sectors, the dates of the fishing season and other measures of an economic nature relating to fishing (art. 26).

227. *Frontier Commissioners.* The Parties shall each appoint frontier commissioners who will co-operate with one another in performing the duties arising out of the provisions of the Treaty (arts. 33–35). The frontier commissioners shall be under a duty *inter alia* to take the necessary measures to prevent violations of the régime of the frontier, to investigate and settle any cases involving violations of the régime of the frontier in particular the discovery of boats or other floating objects or of fishing equipment originating from the territory of the other Party, to investigate and settle, within certain limits, claims for compensation of any kind arising out of violations of the régime of the frontier (art. 37). Claims for compensation in excess of a certain amount shall be settled through the diplomatic channel as well as any case in which the frontier commissioners fail to agree on a settlement (art. 41, paras. 1 and 4).

France–Switzerland

Convention on the Emosson hydroelectric project signed at Sion on 23 August 1963^{132, 133}

228. *Purpose of the Convention.* The Parties, having received an application for a concession to utilize the waters in a single hydroelectric project of several valleys situated in France and Switzerland, and having reached the conclusion that the necessary works should be built by a single concessionaire and that the available power should be shared between themselves, each being subsequently left free to use as it sees fit the power thus allotted to it, concluded this Convention, whose purpose is the utilization of the motive power of the waters collected in specified regions in both France and Switzerland, without prejudice to existing rights in each country. These waters shall be utilized alternatively in two power stations, one located in French territory, and the other located in Swiss territory. A reservoir located entirely in Switzerland, which will make it possible to store the Swiss and French waters in

question by gravity or by pumping, shall be built by means of a dam constructed in the gorge of the Barberine where it opens into the Emosson plain (art. 1).

229. *Execution and operation of the works. Obligations of the concessionaire.* The designs and general plans of the works shall be prepared by the concessionaire; they may not be carried out without the prior approval of the Parties. With regard to security, they shall be subject to the legislation of the State in whose territory they are constructed (art. 2). The works may not be put into operation without the prior agreement of the two Parties. The Convention defines the obligations of the concessionaire relating to drainage and spillways and obliges him to allow the flows deemed necessary to safeguard general interests (sanitation, irrigation, fish conservation, environmental protection, etc.) to run downstream from the dam and the water intakes (art. 3). The Parties establish a permanent supervisory commission to enforce the provisions of the Convention (art. 4).

230. *Apportionment of power between the two Parties.* The Parties recognize that the natural motive power of the waters to which the Convention applies is theoretically of an equal average strength for the waters provided by each of the two countries. They agree that the two States shall at all times have equal rights to utilize the project installations and the available capacity in the Emosson reservoir. In particular, the Convention determines the conditions for the apportionment between the Parties of the electric power produced alternately by the two generating stations, one located in France and the other in Switzerland (art. 5).

231. *Right of each Party to use its share of the power as it sees fit.* Each Party shall be able to use its share of the power in the manner and conditions which it deems useful (art. 6, para. 1).

232. *Exemptions applicable to power produced in the territory of one Party and used in the territory of the other Party.* Power produced in the territory of one State which is to be used in the other State shall be exempt in the first State from all taxes, dues or legal restrictions of any kind, so that such power can be freely transferred to the second State and is in all respects in the same condition as if it had been produced in the territory of the latter State (art. 6, para. 2).

233. *Economic and fiscal arrangements for the execution of the work.* With regard to the execution of work and the maintenance, supervision and operation of the installations, the Parties shall not levy any import or export customs duties on the materials and equipment imported from the other State for the execution of the work, and shall exempt such equipment and raw materials from economic prohibitions or restrictions concerning import or export (art. 16).

234. *Utilization by Switzerland of the French waters downstream from the project.* France recognizes that, downstream from the project which is the subject of the Convention, Switzerland may freely use the waters collected in France and diverted into the Emosson reservoir, with certain specified exceptions (art. 20).

¹³² Came into force on 15 December 1964.

¹³³ *Revue générale de droit international public* (Paris), 3rd series, vol. XXXVI, No. 1 (January–March, 1965), p. 571.

235. *Settlement of disputes.* Any disputes concerning the interpretation or application of the Convention, or of one of the concessions provided for, shall, if it has not been settled within a reasonable period of time through diplomatic channels, be submitted, at the request of either Party, to an arbitral tribunal, the composition of which is determined by the Convention (arts. 21 and 22).

236. *Exchange of territory.* The Parties agree to conclude a Convention modifying the French-Swiss frontier so that the proposed installations (dam, storage reservoir, etc.) are situated entirely on one side of the frontier (art. 24).

Romania-Yugoslavia

Final Act, Agreement and other Acts relating to the establishment and operation of the Iron Gates Water Power and Navigation System on the River Danube, all signed at Belgrade on 30 November 1963^{134, 135}

(a) *Final Act*¹³⁶

237. Having approved the technical and economic memorandum concerning the regulation of the Danube in the Iron Gates sector, submitted to them by the Yugoslav-Romanian Mixed Commission in 1960, the Parties decided to enter into negotiations concerning the construction of the Iron Gates Water Power and Navigation System on the River Danube. In the course of those negotiations, the Parties prepared various instruments on the matter (art. I).

238. *Preservation of assets of archaeological and historical significance.* For the purpose of preserving assets of archaeological and historical significance, the Parties shall recommend to those of their organizations which are employed in studies and research for and in the construction of the Iron Gates System to provide full information and all possible assistance to scientific and specialized institutions engaged in the study and preservation of assets of archaeological and historical significance (art. V).

(b) *Agreement concerning the construction and operation of the Iron Gates Water Power and Navigation System on the River Danube*¹³⁷

239. The two countries, wishing, through economic and technical co-operation, to facilitate the utilization of water power resources on the Danube river and to develop the water power potential of the Danube in the Iron Gates sector, undertake to construct and operate the Iron Gates Water Power and Navigation System on the River Danube under the conditions laid down in the Agreement (art. 1). The Agreement contains provisions on structures and works comprising the Iron Gates System, their situation, technical characteristics and parameters. It also indicates the way in which the System should be designed and constructed (arts. 2-4).

240. *Apportionment of the costs.* The Parties shall partici-

pate in equal shares in the total investments required for the construction of the System (art. 6, para. 1).

241. *Utilization of water power potential in equal share.* The Parties agree to utilize the water power potential harnessed by the System at all storage levels, in equal share, throughout the entire life of the System (art. 8).

242. *The frontier between the Parties on the Danube River (Special Protocols).* The present frontier on the Danube shall remain unchanged except in the area of the main structures, where frontier adjustments defined in the Agreement shall be made. Special protocols shall be drawn up concerning the frontier adjustments.¹³⁸ These adjustments shall remain in effect throughout the period of operation of the System dam, following which the present frontier shall be restored (art. 9, paras. 1 and 2).

243. *Ownership of the structures and works.* The structures and works to be executed in the territory of each Party shall be the property of that Party (art. 9, para. 4).

244. *Operation of the System.* Each Party shall be bound to ensure that those structures and works of the System which belong to it and which are essential to the normal operation of the System are used for the purposes for which they were constructed and are maintained, throughout their standard working life, in a fit condition for operation. Each Party undertakes to refrain from any action which might hinder the use of structures and works of the System belonging to the other Party. Any alteration in the structures and works of the System which might have the effect of changing the parameters of structures and works belonging to the other Party may be undertaken only by prior agreement between the Parties (art. 10, paras. 2, 7 and 8). The Parties undertake to co-ordinate the operation and maintenance of the structures and works to the extent required for the efficient operation of the System (art. 18, para. 1).

245. *Establishment of the Mixed Yugoslav-Romanian Commission for the Iron Gates.* With a view to maintaining permanent co-operation and co-ordination and ensuring the fulfilment and application of treaty provisions concerning the System, the Parties shall establish a Mixed Yugoslav-Romanian Commission for the Iron Gates, as a mixed organ of the two Governments. The functions of the Commission and its organs are defined in the Agreement, in the Conventions and Protocols concerning the Iron Gates System and in the Statute of the Mixed Commission¹³⁹ (art. 11).

246. *Settlement of disputes (Mixed Commission, diplomatic means, arbitration).* Any difference relating to the interpretation or application of the treaty provisions, concerning the System, and any other dispute of a legal nature relating to the construction or operation of the System shall be settled by the Mixed Commission. Where differences cannot be settled in the Mixed Commission, they shall be submitted to the two Governments for settlement by diplomatic means. Where agreement cannot be reached, the

¹³⁴ Came into force on 16 July 1964.

¹³⁵ United Nations, *Treaty Series*, vols. 512 and 513.

¹³⁶ *Ibid.*, vol. 512, p. 12.

¹³⁷ *Ibid.*, p. 42.

¹³⁸ See the Protocol concerning the adjustment of the State frontier in the area of the main structure of the Iron Gates Water Power and Navigation System on the Danube, signed at Orsova on 29 September 1964 (*ibid.*, vol. 559, p. 364).

¹³⁹ See para. 252 below.

Parties undertake to settle the said differences by arbitration and, for that purpose, to take all necessary steps to set up an arbitral commission, the composition of which is regulated by the Agreement (art. 21).

(c) *Convention concerning the preparation of designs for the construction of the Iron Gates Water Power and Navigation System on the River Danube*¹⁴⁰

247. This Convention defines the successive stages in the designing of the Iron Gates System. It also contains provisions concerning the preparation and approval of, and the participation in, the preliminary design for the System, and the working and construction designs for structures and works.

(d) *Convention concerning the execution of works for the Iron Gates Water Power and Navigation System on the River Danube*¹⁴¹

248. Each Party shall arrange for the execution of such construction and assembly works and for the procurement of equipment for such structures and works in its territory as are required for the construction of the Iron Gates System. Construction works on the dam, river diversion works and works to regulate the bed of the Danube downstream of the dam, including the appropriate preparatory works therefor, shall be carried out by the Romanian Party in Yugoslav territory in a volume which shall be specified in the preliminary design, the master construction plan and the annual construction plans. In order to expedite the work or to equalize the value of the work to be carried out by the parties, the Mixed Commission may decide that one Party shall carry out a greater volume of work in the territory of the other Party than that specified in the preliminary design, in the master construction plan and the annual construction plans (art. 1).

The Convention regulates in detail the rights and obligations of the Parties concerning the execution of construction and assembly works and the provisions of the necessary equipment.

(e) *Convention concerning compensation for damage caused by the construction of the Iron Gates Water Power and Navigation System on the River Danube*¹⁴²

249. The Convention provides that the value of investments for the construction of the Iron Gates System shall include compensation for damage directly caused by the creation of the storage lake for the System, and compensation for damage resulting from the interruption of production during the relocation of industrial organizations which are reconstituted (art. 1). The physical volume of damage and the level of compensation for damages are determined on the basis of methods prescribed by the Convention and by the annex thereto (art. 2).

(f) *Convention concerning the determination of the value of investments and mutual accounting in connexion with the construction of the Iron Gates Water Power and Navigation System on the River Danube*¹⁴³

250. Each Party shall finance those of the works required for the construction of the Iron Gates System for whose execution it arranges in accordance with the provisions of the Agreement and Conventions concerning the Iron Gates System and of the preliminary design for the System. The Parties shall participate in equal shares in the total investments required for the construction of the Iron Gates System (art. 1). The Convention contains provisions concerning the methods of determining the estimated value of investments (arts. 3–15), the method of determining the accounting value of investments (arts. 16–19), the method of accounting between the Parties (arts. 20–29), the method of liquidating balances during the construction and after the completion of the construction of the System (art. 30), and the method of determining the final value of investments (art. 31).

(g) *Convention concerning the operation of the Iron Gates Water Power and Navigation System on the River Danube*¹⁴⁴

251. The Parties undertake to arrange for the operation and maintenance of the Iron Gates System under the conditions laid down in the Convention (art. 1). The Convention specifies how responsibility for the management, operation and maintenance of the structures and works will be divided between the various entities concerned and regulates the method of arranging for co-ordination between those entities (art. 2). To that effect, the Convention provides that the Mixed Commission shall establish a Joint Co-ordination Authority and a Joint Energy Control Service and specifies the tasks to be performed by the bodies in question (arts. 3–5). The Convention contains detailed provisions concerning the utilization in equal shares of the water power potential (art. 6) and the maintenance of the structures and works of the System (arts. 7–12).

(h) *Statute of the Mixed Yugoslav–Romanian Commission for the Iron Gates*¹⁴⁵

252. *Composition, functions and decisions of the Mixed Commission.* The Mixed Commission established by the Agreement referred to above¹⁴⁶ shall be responsible for ensuring permanent co-operation and co-ordination and for the fulfilment and application of the provisions of the Agreement, Conventions and Protocols concerning the Iron Gates System (art. 1). It shall be composed of two national groups, each Government appointing its own national group (art. 2). It shall draw up its own rules of organization and procedure and shall approve the rules of organization and procedure of the organs established by it.

¹⁴⁰ United Nations, *Treaty Series*, vol. 512, p. 94.

¹⁴¹ *Ibid.*, p. 152.

¹⁴² *Ibid.*, p. 208.

¹⁴³ *Ibid.*, vol. 513, p. 56.

¹⁴⁴ *Ibid.*, p. 126.

¹⁴⁵ *Ibid.*, p. 154.

¹⁴⁶ See above, paras. 239 *et seq.*

It shall ensure that the mixed organs established by it perform their functions and shall supervise their work (art. 3). The decisions of the Mixed Commission shall be based on agreement between the two national groups. Decisions taken by the Mixed Commission within the limits of its functions shall be final (art. 5).

253. *Board for the Settlement of Differences.* A Board for Settlement of Differences shall be established by the Mixed Commission (art. 3, para. 2 (b)) and shall be competent to settle such differences as the Mixed Commission refers to it for settlement. The Board shall settle differences in accordance with the Agreement, Conventions and Protocols concerning the Iron Gates System, and, in the absence of any provision applicable to the specific case, in accordance with equity (*ex aequo et bono*) (art. 7).

(i) *Protocol concerning crossing of the Yugoslav-Romanian State frontier in connexion with the construction of the Iron Gates Water Power and Navigation System on the River Danube*¹⁴⁷

254. The Protocol governs: crossing of the frontier by personnel working on the construction of the System; customs clearance for materials, construction appliances and other articles dispatched in fulfilment of mutual obligations; frontier control and customs clearance in the case of works executed by one Party in the territory of the other Party in connexion with the construction of the System; and the régime applying to boats and floating structures used in the construction of the System.

(j) *Protocol concerning the settlement of certain questions in connexion with the construction and operation of the Iron Gates System*¹⁴⁸

255. Under the Agreement concerning the construction and operation of the System,¹⁴⁹ the Parties shall participate in equal shares in the total investments of the System. The Protocol contains provisions designed to ensure an equal distribution of burdens and balancing the rights and obligations of the Parties in connexion with the construction and operation of the System.

Norway-Union of Soviet Socialist Republics

Protocol concerning the land in Norwegian and Soviet territory which is required for the operation and maintenance of the power stations at Boris Gleb and Skogfoss and which, in accordance with the Agreement of 18 December 1957 on the utilization of water-power on the Pasvik (Paatso) River, is made available free of charge by one Party for use by the other Party, signed at Oslo on 24 December 1963^{150, 151}

256. *Sites required for the operation and maintenance of the power stations at Boris Gleb and Skogfoss.* The Protocol defines the sites which each Party under articles 5 and 6 of

the Agreement of 18 December 1957¹⁵² makes available to the other, free of charge for the operation and maintenance of the power stations at Boris Gleb and Skogfoss (arts. 1 and 2).

Finland-Union of Soviet Socialist Republics

Agreement concerning frontier watercourses, signed at Helsinki on 24 April 1964^{153, 154}

257. The Agreement was concluded in order to define the principles governing the use of the common frontier watercourses of the Parties and to establish a régime for their use.

258. *Frontier watercourses.* Lakes, rivers and streams which are intersected by the frontier line or along which the frontier line runs are deemed to be frontier watercourses. The Agreement of 23 June 1960¹⁵⁵ (referred to in the remainder of the text as "the 1960 Agreement") between the Parties concerning the régime of their State frontier specifies which sections of frontier watercourses are deemed to be frontier waters (art. 1).

259. *Principles applicable to frontier watercourses.* No measures may be taken, in disregard of the procedure laid down in the Agreement, in frontier watercourses or on the banks thereof which might so alter the position, depth, level or free flow of watercourses in the territory of the other Party as to cause damage or harm to the water area, to fisheries, to land or to structures or other property; which might create a danger of flooding, cause a significant loss of water, alter the main fairway or interfere with the use of the common fairway for transport or timber-floating; or which might in some other like manner be prejudicial to the public interest. The same principle applies to measures which alter or block the fairway or change the course thereof, even where such measures would not have the aforementioned consequences. The frontier watercourses and structures situated therein are to be maintained in such a state that the damage or harm referred to above does not ensue (art. 2). The Parties shall ensure that the main fairways of frontier watercourses are kept open for the free flow of water and for transport, timber-floating and the passage of fish (art. 3).

260. *Pollution.* The Parties shall take measures to ensure that frontier watercourses are not polluted by untreated industrial effluents and sewage, by waste materials from timber-floating or wastes from ships or by other substances which immediately or in course of time, might cause shoaling of the watercourses, harmful changes in the composition of the water, damage to the fish-stock or substantial scenic deterioration or might endanger public health or have similar harmful consequences for the population and the economy (art. 4).

261. *Compensation for loss and damage.* Where the execution of certain measures by one Party causes loss or damage in the territory of the other Party, the Party permitting such measures in its territory shall be liable to make reparation to the Party suffering the loss or damage. Each Party shall

¹⁴⁷ United Nations, *Treaty Series*, vol. 513, p. 184.

¹⁴⁸ *Ibid.*, p. 220.

¹⁴⁹ See above, paras. 239 *et seq.*

¹⁵⁰ Came into force on 8 August 1964.

¹⁵¹ United Nations, *Treaty Series*, vol. 535, p. 426.

¹⁵² See p. 151 above, document A/5409, paras. 782-789.

¹⁵³ Came into force on 6 May 1965.

¹⁵⁴ United Nations, *Treaty Series*, vol. 537, p. 231.

¹⁵⁵ See p. 177 above, document A/5409, para. 944.

ensure that reparation for the loss or damage is made to nationals, organizations and institutions of its own country. The Parties may agree separately to make reparation for any loss or damage caused by such measures by granting the Party suffering the loss or damage certain privileges in the watercourses of the other Party (art. 5).

262. *Establishment of the Joint Finnish-Soviet Commission on the Utilization of Frontier Watercourses.* The Agreement provides for the establishment of this Joint Commission (art. 6) to deal with the matters relating to the utilization and the protection of frontier watercourses, to ensure that the Agreement is complied with and to keep the state of the water in frontier watercourses under observation (art. 8). The Agreement contains provisions concerning the composition, the functions and methods of work of the Commission, the nature of its decisions and the law to be applied (arts. 9-11).

263. *Provisions concerning specific questions*

(a) *Timber-floating and water transport.* Where one of the Parties, one of its nationals or an organization or institution wishes to float timber in frontier watercourses in the territory of the other Party, the Commission may, in consultation with the competent authorities, authorize such floating and approve a set of rules governing floating, which shall define the rights and obligations of the timber-floaters and their crews and enumerate the equipment and installations required for the floating operations. Such other questions relating to timber-floating as are not covered by the rules governing floating or by special agreements between the Parties shall be decided in the territory of each Party in accordance with the provisions in force there (art. 13). Transport in frontier watercourses shall be governed by the provisions of the 1960 Agreement so far as the frontier waters are concerned. In other sections of the frontier watercourses, the provisions of the law in force there shall apply (art. 14).

(b) *Protection of the fish stock and fisheries.* The Parties shall take measures to safeguard the fish stock and fisheries in specified frontier watercourses abounding in salmon and white fish (art. 15). So far as the safeguarding of the fish stock and fisheries in frontier watercourses other than those specified above is concerned, the provisions of the law in force in each Party shall apply (art. 16). Fishing in frontier waters shall be governed by the provisions of the 1960 Agreement (art. 17).

264. *Settlement of differences.* Where any differences of opinion arising from the interpretation or application of the Agreement cannot be settled by the Joint Commission, they shall be settled by a Joint Board. If the Board fails to reach agreement, such differences shall be settled through the diplomatic channel (art. 19).

Finland-Norway

Agreement regarding fishing in the fishing area of the Näättämö (Neiden) watercourse (with related fishing regulations), signed at Oslo on 9 June 1964^{156, 157}

¹⁵⁶ Came into force on 9 June 1964. The fishing regulations came into force on 12 June 1964.

¹⁵⁷ United Nations, *Treaty Series*, vol. 503, p. 205.

265. This Agreement was concluded in accordance with the Agreement of 25 April 1951 regarding the diversion from the Näättämö (Neiden) watercourse to the Gandvik watercourse of the water flow from Garsjöen, Kjerringvatn and Förstevannene Lakes.¹⁵⁸

266. *The Näättämö (Neiden) fishing area.* The fishing area of the Näättämö (Neiden) watercourse comprises that part of the watercourse extending from the boundary between the river and the sea to the furthestmost point in the watercourse to which salmon ascend. The boundary between the river and the sea shall be determined as provided in Norwegian law (art. 1 of the Agreement and art. 1 of the related fishing regulations).

267. *Measures to facilitate the ascent of salmon.* Both Parties undertake to build at their own expense the salmon passes which are necessary to facilitate the ascent of salmon (art. 4).

268. *Regulations concerning the catching of salmon, sea trout or other fish. Prohibition of certain methods of fishing.* The fishing regulations contain provisions concerning the tackle and methods which may be used for catching salmon, sea trout and other fish. They also prohibit certain methods of fishing and establish other rules for the protection and development of fish stocks in the Neiden watercourse.

Bulgaria-Greece

Agreement on co-operation in the utilization of the waters of the rivers crossing the two countries, signed at Athens on 9 July 1964^{159, 160}

269. *Co-operation in studies concerning works and installations.* The Parties, anxious to control flooding more effectively and to derive the greatest possible benefit from the utilization of the waters, shall co-operate in the consideration and study of works and installations on the Strymon, Nestos, Arda and Evros rivers (art. 1). Bulgaria shall submit to Greece technical and economic studies on the feasibility of constructing engineering works in Bulgarian territory which will make it possible to irrigate lands in Greek territory, and to hold back materials washed down (art. 7).

270. *Obligation not to cause damage to the other Party.* The two Parties agree not to cause each other major damage of any kind by the construction and operation of works and installations in the rivers crossing their territories (art. 2).

271. *Exchange of data and information.* The two Parties shall exchange, for the purpose of the works and installations, technical, hydraulic, hydro-meteorological, topographical, geological, geotechnical, agricultural and economic data (art. 3). In order that measures may be taken in time to prevent the flooding of lands under cultivation, they shall exchange the necessary data and information for this purpose (art. 4).

272. *Settlement of disputes.* Any questions requiring arbitration, which may arise concerning the interpretation and

¹⁵⁸ See p. 143 above, document A/5409, paras. 707-710.

¹⁵⁹ Came into force on 9 July 1964.

¹⁶⁰ Text provided by the Greek Government.

application of the Agreement, shall be settled through diplomatic channels (art. 8).

Poland-Union of Soviet Socialist Republics

Agreement concerning the use of water resources in frontier waters, signed at Warsaw on 17 July 1964^{161, 162}

273. *Definition of frontier waters.* "Frontier waters" means: the surface waters referred to in the Treaty of 15 February 1961,¹⁶³ other surface waters intersected by the State frontier, and the ground waters intersected by the State frontier (art. 2).

274. *Co-operation in activities relating to the use of water resources.* 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 (art. 3). The Parties shall co-ordinate all activities capable of causing changes in the existing situation with regard to the use of water resources in frontier waters (art. 5). The Parties shall consult each other in formulating measures and co-ordinate their plans for the development of water use in frontier waters and shall assist each other in executing such plans (art. 6). They shall, in particular, co-operate and exchange experience with regard to: the designing and production of apparatus and equipment required in connexion with the use of water resources; the preparation of norms, standards and standardized designs for structures; and the training of staff required in connexion with the use of water resources (art. 7). They 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. They shall take co-ordinated action with a view to the elimination or reduction of danger resulting from floods, drifting ice and other natural phenomena and shall determine the manner in which costs connected with the execution of joint works are to be met (art. 8).

275. *Works in frontier waters (prior agreement of the other Party).* Neither Party shall, save by agreement with the other Party, carry out any works in frontier waters which may affect the use of water resources by the latter Party. All works in frontier waters relating to the regulation of rivers, the installation of new hydraulic equipment and the renovation of existing hydraulic equipment, as well as the maintenance and operation of such equipment, shall be carried out by each of the Parties on the basis agreed upon by the two Parties (art. 9).

276. *Pollution.* The Parties shall jointly conduct measurements with regard to the pollution of frontier waters and shall work out common standards and norms of water purity and, if necessary, establish procedures for controlling pollution (art. 10). They shall endeavour to keep frontier waters clean, shall employ appropriate procedures for purifying sewage and rendering it harmless, and shall not

discharge any sewage which may cause harmful pollution of frontier waters (art. 11).

277. *Implementation of the Agreement.* Each Party shall appoint a Plenipotentiary on matters relating to the use of water resources in frontier waters (art. 12).

278. *Facilities for the execution of works provided for in the Agreement.* Persons employed on the works in question may cross the State frontier in conformity with the provisions of the Protocol to the Treaty of 1961. Instruments and building materials may be brought by such persons provided that—save for building materials used on the work site—they are subsequently taken back (art. 14).

Austria-Yugoslavia

Treaty concerning the common State frontier, signed at Belgrade on 8 April 1965^{164, 165}

279. *Water sectors of the frontier.* Where the Frontier Delimitation Commission has fixed the State frontier in the middle of a watercourse, it shall be permanently defined by the position of the centre line of the watercourse as originally established by that Commission on the basis of surveys, without regard to any subsequent changes in the watercourse; this shall apply, in particular, to the frontier sector of the Drau (Drava). Changes in the course of the Mur (Mura) subsequent to 25 November 1962 shall not affect the course of the State frontier (art. 4). Where the State frontier has been fixed by the Frontier Delimitation Commission on the Jelenbach (Jelen potok) along the latter's right bank, it shall be permanently defined by the position of the bank at the time of delimitation, without regard to any subsequent changes in the said bank (art. 5).

280. *Protection of the banks of the watercourses.* The Parties shall, where this is not contrary to the fundamental interests of water economy, take appropriate steps to ensure that the banks of the watercourses remain, in the frontier sectors, in the position originally determined by the Frontier Delimitation Commission. They shall in addition take appropriate steps to ensure that the banks of the Mur (Mura) remain, in the frontier sector, in the same position as on 25 November 1962 (art. 6).

281. *Surveying and marking of State frontier. Protection of frontier marks and measures to ensure that they remain visible.* The Treaty contains provisions concerning these questions, and establishes a Permanent Mixed Commission for the purpose of carrying out the tasks for which the two Parties are responsible under the Treaty (parts III, IV and V of the Treaty).

Austria-Czechoslovakia

Treaty concerning the regulation of water management questions relating to frontier waters, signed at Vienna on 7 December 1967^{166, 167}

282. *Territorial scope of the Treaty.* The Treaty shall apply to water management questions and measures relating to

¹⁶¹ Came into force on 16 February 1965.

¹⁶² United Nations, *Treaty Series*, vol. 552, p. 175.

¹⁶³ See paras. 178-193 above.

¹⁶⁴ Came into force on 20 October 1966.

¹⁶⁵ United Nations, *Treaty Series*, vol. 587, p. 169.

¹⁶⁶ Came into force on 18 March 1970.

¹⁶⁷ Text provided by the Austrian Government. Reproduced in United Nations, *Treaty Series*, vol. 728, p. 313.

frontier waters, that is: (a) sections of watercourses along which the State frontier between the Parties runs; (b) waters intersecting the State frontier and waters adjoining the State frontier where any water management measures applied to them in the territory of one Party would have seriously adverse effects on water conditions in the territory of the other Party (art. 1).

283. *Substantive scope of the Treaty.* The expression "water management questions and measures" (art. 1) shall apply to changes in the river régime, the regulation of watercourses, the erection of high-water embankments, protection against flooding and ice, land reclamation and improvement, water supply, cleaning, utilization of water power, bridges and ferries and also navigation matters in so far as they are related to hydraulic measures within the meaning of the Treaty. The Treaty shall not apply to fisheries nor to the utilization of water power in so far as it affects the power industry (art. 2).

284. *General obligations.* Each Party undertakes to refrain from carrying out, without the consent of the other Party, any measures relating to frontier waters which would adversely affect water conditions in the territory of the other Party (art. 3, para. 1) and to discuss in the Austrian-Czechoslovak Frontier Water Commission,¹⁶⁸ before instituting proceedings concerning water rights, any planned measures relating to frontier waters (art. 3, para. 2). In frontier waters, the two Parties shall have the use, without prejudice to acquired rights, of half of the natural water yield not increased by technical means (art. 3, para. 3). Whenever necessary, they shall arrange for the purification of waste water arising from new sources (art. 3, para. 4). They shall further ensure that the operation of hydraulic installations and facilities of all kinds in frontier waters does not harm the interests of the other Party in the matter of water management (art. 3, para. 5).

285. *Maintenance and improvements.* The Parties shall provide, as necessary, for the maintenance of the frontier waters, including the structures, installations and facilities in such waters and shall make any necessary improvements thereto (art. 4, para. 1). They shall, in accordance with their domestic regulations, promote the construction in their territory of hydraulic installations and facilities to provide protection against the danger of flooding and ice along frontier waters; measures shall also be taken to ensure that frontier waters are kept clean and to construct hydraulic installations and facilities for the drainage or irrigation of adjoining territory, for the supply of water to frontier communities and for the utilization of water power from frontier waters or the improvement of navigation (art. 4, para. 2).

286. *Performance of maintenance work*

(a) *Maintenance of frontier waters and hydraulic installations.* Each Party shall be responsible in its own territory for the maintenance of frontier waters and of regulatory structures and other hydraulic installations and facilities situated in such waters. Each Party shall also be responsible for the maintenance of hydraulic installations and facilities constructed in its territory on the basis of a grant of water

rights or by special agreement and serving the interests of the other Party (art. 5, paras. 1 and 2).

(b) *Cleaning of the bed and banks of frontier watercourses.* The cleaning of the bed and banks of frontier watercourses shall be carried out as necessary and shall, as a general rule, be undertaken by each Party in its own territory and at its own expense (art. 5, para. 3).

287. *Water management measures*

(a) *Planning.* Planning for water management measures by the Parties shall be undertaken on the basis of general directives established by the Commission. The Party concerned shall prepare the plans for measures to be carried out in its own territory. Where measures affect the territory of both States, the plans shall be prepared by the Party designated by the Commission (art. 6).

(b) *Execution.* Water management measures, and in particular regulatory and other hydraulic works, shall in principle be executed by each Party in its own territory. Decisions concerning the execution of measures—including major maintenance work—whose cost is to be borne by the two Parties jointly shall be taken by the Commission. Where it is necessary for measures to be executed in the territory of both States and such measures, for technical or economic reasons, can only be executed jointly, the method of execution shall be determined by the Commission (art. 7).

(c) *Costs.* Each Party shall bear the costs of the execution of water management measures which are to be carried out by it in its territory for its exclusive benefit. The costs of the execution of water management measures from which both Parties are to derive benefit shall be borne by the Parties in proportion to the benefit which each is to derive therefrom, regardless of whether the works are executed in the territory of only one Party or in the territory of both. The costs of the execution of water management measures which are carried out in the territory of one Party for the exclusive benefit of the other Party shall be borne by the Party which is to benefit from the measures. The Parties shall not reimburse to each other the costs connected with surveying and with the planning and management of the works executed, save as otherwise agreed in individual cases. These provisions shall also apply, as appropriate, in respect of costs connected with the maintenance and operation of hydraulic installations and facilities (art. 8).

288. *Provisions concerning water rights*

(a) *Law applicable.* Matters relating to water rights shall be adjudicated according to the law and by the authority of the Party to whose territory the proceeding relates (art. 10, para. 1).

(b) *Installations and facilities to be constructed in the territory of both Parties. Grant of water rights.* In the case of installations and facilities to be constructed in the territory of both States, the grant of water rights for the part to be constructed in the territory of each State shall be made by that State's competent water management authority; in such cases, an effort shall be made to conduct the proceedings consecutively with the participation of both States (art. 10, para. 2).

(c) *Installations and facilities to be constructed in the territory of one Party affecting rights or interests in the territory*

¹⁶⁸ See para. 291 below.

of both Parties. In the case of installations and facilities which affect rights or interests in the territory of both States but are to be constructed in the territory of only one State, the proceedings shall be conducted by each State in its own territory (art. 10, para. 3).

(d) *Proceedings concerning water rights coming within the jurisdiction of the Commission.* Proceedings concerning water rights in a case coming within the jurisdiction of the Commission may not be instituted, save where delay would entail risk, until the Commission or the Plenipotentiaries have taken up the matter (art. 10, para. 4).

(e) *Existing water rights.* Existing water rights in respect of frontier waters and the obligations connected therewith shall remain unaffected (art. 10, para. 6).

289. *Warning service.* The competent authorities of the Parties shall notify each other as quickly as possible of any danger of flooding or ice or other danger arising in connexion with frontier waters which comes to their attention (art. 11).

290. *Extraction of gravel and sand.* Gravel and sand may be freely extracted from sand banks for river engineering purposes in the frontier sector subject to prior agreement between the competent authorities of the Parties (art. 12).

291. *Austrian-Czechoslovak Frontier Water Commission. Composition. Functions.* A permanent commission, to be known as the Austrian-Czechoslovak Frontier Water Commission, shall be established by the Parties. Each Party shall send a four-member delegation to the Commission and shall appoint one member of the delegation as permanent plenipotentiary. The Commission shall deal, *inter alia*, with the following matters:

(a) The practical solution of technical and economic problems and the promotion of co-operation in the execution of hydraulic works;

(b) Questions relating to specific cases of adverse effects on water conditions and consideration of the need for measures in accordance with the provisions of the Treaty;

(c) The planning of hydraulic works, the determination of methods of execution of such works, and matters relating to their maintenance;

(d) Technical designs and budgets for hydraulic works, regulatory installations and other structures (bridges, dams, water-removal installations, etc.), schedules of execution for the structures, and inspection and acceptance of joint works and measures;

(e) Liability for costs in accordance with the Treaty;

(f) Verification of the implementation of decisions and execution of works and measures;

(g) Questions relating to the cleaning of frontier waters (art. 14 and arts. 1 and 2 of the Statute of the Commission, annexed to the Treaty).

292. *Approval of the Commission's decisions.* Decisions of the Commission shall not affect the right of the Governments to take decisions. Decisions may be carried out only if they are approved by the Governments of the Parties. The plenipotentiaries shall notify each other of decisions taken by their Governments (art. 5 of the Statute).

293. *Customs facilities granted for the execution of works and water management measures under the Treaty.* The Treaty provides for exemption from customs duty of construction materials, working stock, land and water vehicles and equipment for the execution of works and water management measures undertaken under the Treaty (art. 15). It also contains provisions concerning the crossing of the State frontier by persons in the performance of their duties under the Treaty (art. 16).

294. *Settlement of disputes. Arbitral tribunal.* Disputes concerning the interpretation or application of the Treaty shall be settled by the competent authorities of the two Parties. This provision shall not preclude settlement through the diplomatic channel. Any dispute which cannot be settled in such manner shall, at the request of either Party, be submitted to an arbitral tribunal constituted on an *ad hoc* basis which will take its decision on the basis of the Treaty and by application of customary international law and of the generally recognized principles of law (art. 19).

295. *Transitional provisions.* The provisions of the Treaty shall supersede the agreements previously concluded between the two Parties concerning the regulation of water management questions and measures relating to frontier waters. Works and measures begun or carried out before the entry into force of the Treaty shall be deemed to be works and measures within the meaning of the Treaty (art. 20).

296. *Domestic obligations.* Domestic regulations and obligations concerning water management measures and the defrayal of costs pertaining thereto shall not be affected by the obligations assumed by the Parties under the Treaty (art. 21).

Czechoslovakia-Hungary

Agreement concerning the establishment of a River Administration in the Rajka-Gönyü sector of the Danube, signed at Prague on 27 February 1968^{169, 170}

297. *Establishment of the River Administration.* The Parties shall establish a River administration in the joint Czechoslovak-Hungarian sector of the Danube between Rajka and Gönyü for the purpose of ensuring that the hydraulic works necessary for maintaining and improving the fairway are carried out and for the purpose of regulating navigation conditions (art. 1).

298. *Jurisdiction of the River Administration.* The jurisdiction of the Administration shall comprise that sector of the Danube river-bed extending from Rajka to Gönyü between km 1850 and km 1791 (art. 3).

299. *Legal status and privileges of the River Administration.* The Administration, as a joint Czechoslovak-Hungarian organization, shall be a body corporate. The legal status and privileges of the Administration shall be governed by the Convention on the legal status and privileges of international specialized organizations for economic co-operation, signed at Warsaw on 9 September 1966¹⁷¹ (art. 4, paras. 1 and 3).

¹⁶⁹ Came into force on 27 February 1968.

¹⁷⁰ United Nations, *Treaty Series*, vol. 640, p. 49.

¹⁷¹ *Ibid.*, vol. 652, p. 223.

300. *Composition and functions of the River Administration.* The Administration shall consist of a Council and of a secretariat, headed by a director (art. 4, para. 2). The functions of the Administration shall specifically include: the making of provisions for studies, investigations and research, for preparatory and project documentation and for the contracting for and supervision and acceptance of hydraulic works to be carried out in the sector; and the conduct of the technical, economic, administrative, legal and financial business connected with its activities. The functions of the Administration shall extend to water-management activities outside the fairway in so far as such activities have a bearing on the maintenance of the fairway and the improvement of navigation conditions; they shall not extend to flood-control or ice-control activities or the maintenance of ports and dikes (art. 6).

301. *Execution of hydraulic works.* The term "hydraulic works" means all activities, including maintenance and dredging operations, intended to establish suitable dimensions for the fairway and to ensure the regular flow of high, mean and low water and the unimpeded movement of ice along the river-bed (art. 7, para. 1). The Administration shall provide for the execution of the hydraulic works in such a way that the relevant contracts are given to the competent organizations of the two Parties. The works for which they have been given contracts shall ordinarily be carried out by the organizations of the two States in the territory of their own State. This provision shall not apply to dredging operations or to the supply and transport of construction materials (art. 7, paras. 2 and 3).

302. *Previous studies and surveys to be made available to the River Administration.* The Parties shall make available to the Administration the results of previous studies and surveys which relate to the fairway and are needed by the Administration, including existing documentation on completed construction and project documentation on construction in progress or being planned. The Administration shall inform the competent organizations of the two States of the results of surveys and studies and of work carried out in the sector (art. 8).

303. *Apportionment of hydraulic works to be carried out in the sector.* The hydraulic works to be carried out in the sector shall be apportioned between the Parties in physical units on an equal basis. Provision for the costs of such works shall be made by the Parties in their budgets (art. 15, para. 1).

304. *Settlement of disputes.* Any disputes arising out of the application of this Agreement which are not settled by the Council shall be referred to the Parties for a decision (art. 21).

Greece-Yugoslavia

Agreement concerning the study of the over-all improvement of the Axios/Vardar basin, signed at Belgrade on 12 June 1970^{172, 173}

305. The two Parties, desiring to undertake jointly, with

¹⁷² Text provided by the Greek Government.

¹⁷³ Agreement applicable on a provisional basis immediately upon signature, in accordance with article 9.

the help of UNDP, the study of the project for the over-all improvement of the Axios/Vardar basin, in order to be able to develop subsequently, in the interests of both countries, the resources of the said basin by the execution of this project, agree to submit a request jointly to UNDP with a view to the preparation of this study (art. 1). The Agreement provides for the establishment of a Joint Commission for the Development of the Axios/Vardar Basin, composed of five representatives of each Government, and responsible for supervising all work on preparing the study in question and for submitting to the two Governments the proposals necessary for the smooth execution of this work (art. 3). If the study, once it has been prepared and adopted, proves the economic and technical feasibility of the over-all improvement for each of the two Parties, the two Governments shall conclude an agreement concerning the execution of the work necessary for the over-all improvement of the Axios/Vardar basin and the joint financing of such work, and including provisions concerning the apportionment of costs and the method of financing. The two Parties agree that the purposes of the over-all improvement are: (a) to satisfy the needs of Greece relating to the Axios/Vardar irrigation system and (b) to satisfy as a matter of priority the present and future needs of Yugoslavia by its free utilization of all the water, other than the quantity of water needed by Greece (art. 7).

Bulgaria-Greece

Agreement 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, signed at Sofia on 12 July 1971^{174, 175}

306. *Formation of the Greek-Bulgarian Commission. Composition. Functions.* A permanent Greek-Bulgarian Commission, with 12 members, is established. Each Party is represented by six members (art. 2). The Commission's task is to carry out studies and take decisions on matters concerning co-operation between the two Parties in questions relating to electric power and the utilization of the waters of the rivers crossing their territories. The Commission is also competent to enforce the Agreement of 9 July 1964.¹⁷⁶ It may submit proposals to the two Parties and study all questions of common interest (art. 1).

Finland-Sweden

The Frontier Rivers Agreement of 16 September 1971^{177, 178, 179}

307. The Governments of Finland and Sweden, in order to ensure such use of the frontier watercourses as to

¹⁷⁴ Came into force on 12 July 1971.

¹⁷⁵ Text provided by the Greek Government.

¹⁷⁶ See paras. 269-272 above.

¹⁷⁷ Came into force on 1 January 1972.

¹⁷⁸ Text provided by the Swedish Government.

¹⁷⁹ Under its chapter 10, article 4, this Agreement supersedes, *inter alia*, the Convention of 10 May 1927 between the Parties concerning the joint exploitation of the salmon fisheries in the Tornea (Tornio) and Muonio rivers (see p. 148 above, document A/5409, paras. 752 *et seq.*).

conform with the interests of their two countries and of the borderland, concluded this agreement for the regulation of certain questions pertaining to water rights and fishing rights relating to these watercourses.

308. *Water areas covered by the Agreement.* The Agreement applies to: the rivers Kōnkämä and Muonio and the part of the River Torne and the lakes through which the Finnish-Swedish frontier runs (the frontier rivers); the lakes and watercourses which form branches of or affluents to the frontier rivers; the special effluents formed by the various branches at the mouth of the River Torne; the part of the Gulf of Bothnia lying between the Finnish and Swedish parishes of Lower Torne (chap. 1, art. 1).

309. *Use of waters. Preservation of fish stock and prevention of water pollution.* The waters covered by the Agreement shall be used in such a manner that both countries derive benefit from the frontier watercourses and that the interests of the frontier areas are promoted as effectively as possible. Particular importance shall be accorded to the interests of nature conservancy; the greatest possible attention shall be given to the preservation of fish stocks and the prevention of water pollution. In cases involving a number of different projects which affect the same waters or for some other reason cannot be carried out concurrently, preference shall be given to the project which may be assumed to be of the greatest public and private benefit. Conflicting interests shall, in so far as possible, be adjusted in such a way that each may be satisfied without substantial injury to the others (chap. 1, arts. 3 and 4).

310. *Right to an equal share of the water volume. Respect for acquired rights (judicial decision, immemorial usage).* In frontier rivers with branches, each party shall be entitled to an equal share of the water volume even if a larger portion thereof discharges in one State than in the other. This provision shall be without prejudice to any individual water rights based on a judicial decision, immemorial usage or other special legal grounds. An owner or usufructuary of the bank of a frontier river may, without regard to the frontier, use waters along the bank belonging to a third party to erect a small landing-stage, boathouse, bathhouse, wash-house or other similar building. Any person shall be entitled to take water or ice from frontier rivers for domestic requirements or to use the water for other similar purposes. Waters may not be used for the purposes specified in the Agreement if the owner of the waters is thereby caused significant inconvenience or if fishing or timber floating is hampered. This provision shall be without prejudice to other regulations applicable to traffic across the State frontier (chap. 1, arts. 5 and 6).

311. *Law applicable.* In cases where no special provision is made in the Agreement, the laws in force in each State shall apply (chap. 1, art. 8).

312. *Establishment of the Finnish-Swedish Frontier River Commission. Composition. Functions.* For purposes of the application of the Agreement, a joint permanent Commission shall be established consisting of six members. Each State shall appoint three members. The Commission shall, pursuant to its own decisions, institute such inquiries and investigations as are required in order to enable it to accom-

plish its tasks in accordance with this Agreement. It may enter into direct contact with the authorities of either State and may call upon them for assistance in obtaining any necessary information and arranging for any necessary consultations (chap. 2, arts. 1-3). The Commission shall, in co-operation with the competent authorities of the two States, exercise supervision of water use and keep water conditions in general under review within the area of application of the Agreement. This Agreement does not entail any restriction of supervision exercisable under the legislation of either State. The Commission may issue regulations concerning the exercise of supervision by a specially appointed expert. Fishery supervision may, by decision of the Frontier River Commission, be exercised by joint supervisory patrols of the two States. Each State shall pay and equip its own supervisory personnel. The Commission shall maintain continuous observation of water flow at the point where the River Tärenö (Tärenö) 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 (chap. 9, arts. 1-3).

313. *Criminal liability of the members and officials of the Commission.* Members of the Frontier River Commission shall, while serving with the Commission, be criminally liable for their actions under the law of the State by whose Government they were appointed. The staff of the Commission shall be subject, in the matter of criminal liability, to the legal provisions relating to civil servants of their State of residence. Members and staff of the Commission shall, while in the performance of their duties, enjoy the protection under criminal law which is accorded to civil servants in the State in which the duties are performed (chap. 2, art. 5).

314. *Facilities granted to the Commission and its members and officials.* The authorities of each State shall permit members and staff of the Commission and experts appointed to exercise supervision pursuant to the Agreement to cross the frontier wherever appropriate for the purposes of the Commission's work or for the purpose of exercising supervision and shall grant them the most favourable possible treatment with regard to passports and other identity papers and with regard to the times when they may cross the frontier and stay in the State concerned. The property of the Commission shall be exempt from all customs formalities and from import and export duties (chap. 2, arts. 6 and 7).

315. *Rules concerning hydraulic construction works.* Where any person would suffer damage or inconvenience as a result of the construction of hydraulic works, the works shall be carried out only if they can be shown to bring public or private benefit that substantially outweighs the inconvenience. Where the construction would result in a substantial deterioration in the living conditions of the population or cause a permanent change in natural conditions such as might entail substantially diminished comfort for people living in the vicinity or a significant nature conservancy loss or where significant public interests would

be otherwise prejudiced, the construction shall be permitted only if it is of particular importance for the economy or for the locality or from some other public standpoint (chap. 3, art. 3). Where hydraulic construction works are such that they may have a harmful effect on fishing, the person carrying out the construction shall take or pay for such measures as are reasonably called for in order to protect the fish stock or maintain fishing of an equal standard (chap. 3, art. 7). Any person who carries out hydraulic construction works shall be bound to take or pay for reasonable measures to prevent inconvenience to traffic. Persons carrying out construction works shall also be bound to take or pay for the measures required in order to prevent any significant inconvenience to timber floating. Where, in a particular case, relatively extensive measures are required in order to relieve inconvenience to timber floating, the two States shall consider jointly whether and to what extent the cost of such measures may be defrayed from public funds (chap. 3, art. 8).

316. *Hydraulic construction works and water pollution.* In carrying out hydraulic construction works, care shall be taken to ensure that, apart from occasional, temporary turbidity, no pollution occurs that causes any significant inconvenience (chap. 3, art. 9).

317. *Fishing*

(a) *Scope of application of the relevant provisions.* The Agreement defines the area referred to as the "Fishery Zone of the River Torne" to which its provisions on fishing are applicable. The part of the Fishery Zone of the River Torne lying north of the mouth of the river defined as a straight line between the tip of Hellälä north point on the Finnish side and the tip of Vitakari point, the nearest site on the opposite Swedish side, shall be called the river zone; the part lying south of that line shall be called the sea zone. The effluents of the River Torne shall be part of the river zone (chap. 5, art. 1).

(b) *Fish channels.* Within the river zone there shall be fish channels in the deepest water in each branch where fishing is carried on. The fish channel shall occupy one third of the width of the water at the most frequently occurring low water level. Fish channels which, in conformity with the law of the State concerned, lie in an affluent to the river zone shall extend with unchanged width up to the fish channels in the said zone. The Frontier River Commission may decide that the fish channels shall run in some other part of the water than that referred to in the Agreement; however, such a change may be made only if it can be presumed that it will not cause any substantial injury to any person who has not agreed thereto. Fishing gear and other devices may not, save in the case of measures for which permission has been obtained in accordance with the provisions of this Agreement relating to hydraulic construction works, be set up or used in such a manner as might hinder fishing in the fish channels or otherwise prevent fishing from proceeding there. The Frontier River Commission may, however, grant exceptions in certain cases if it can be presumed that this will not present a danger to fishery conservancy or cause substantial injury to any person who has not agreed to the measures in question. Where any person has a special right

to close the fish channels to fishing, that right shall continue to exist (chap. 5, art. 2).

(c) *Reserve zones.* Within the sea zone there shall, in addition to fish channels established in conformity with the law of each State, be reserve zones. These shall consist of the waters to a distance of 200 metres on each side of a series of straight lines defined in the Agreement. The provisions on fishing gear and other devices laid down with respect to fish channels also apply in the case of reserve zones (chap. 5, art. 3).

(d) *Fishing for salmon or sea trout.* The Agreement forbids the use of certain types of gear designed for catching salmon or sea trout within a specified portion of the sea-zone. Seine fishing in the river zone for salmon or sea trout may be established in respect of certain fishing sites, provided that other fishing does not suffer significant inconvenience as a result, that fishing shall be carried on jointly across the State frontier. Decisions to that effect, which shall be valid for a maximum of 10 years in each case, shall be adopted by the Frontier River Commission on the proposal of one or more of the persons possessing fishing rights. In the decision the Commission shall establish regulations for joint fishing, indicating the area in question and the principles governing the conduct and management of fishing operations. Farm owners in villages at and near the fishing site shall, in accordance with the principles set out in the regulations, receive precedence in the granting of fishing rights. Decisions of the Commission shall become effective upon confirmation by the two Governments (chap. 5, art. 6).

318. *Protection against water pollution.* No solid or liquid wastes or other substances may be discharged into waters to a greater extent than is permitted under this Agreement where such discharge results in harmful aggradation, a harmful change in the nature of the water, damage to fish stocks, diminished comfort for the population or endangerment of their health or other such damage or inconvenience to public or private interests. The provisions applicable shall be, in addition to those of the Agreement, the provisions of the legislation concerning health, construction and nature conservancy of the State in which the discharge occurs or is to occur and the provisions of that State's special protective legislation against specific types of water pollution (chap. 6, arts. 1 and 2).

319. *Compensation. Law applicable.* Any person who is granted the right under this Agreement to use property belonging to a third party, to use water power belonging to a third party or to take measures which otherwise cause damage or inconvenience to property belonging to a third party shall be liable to pay compensation for the property used or for the loss, damage or inconvenience caused. Save as otherwise provided, compensation shall be fixed at the time when permission is granted for the measure in question. The Frontier River Commission may also take decisions, otherwise than in connexion with applications for permission, on questions of compensation arising from measures falling within the scope of this Agreement. Save as otherwise provided in the Agreement, the law of the State in which the property used is situated or in which loss, damage or inconvenience otherwise occurs shall apply in respect of the grounds for compensation, the right of the

owner of property used or damaged to demand payment and the manner and time of payment of compensation (chap. 7, arts. 1, 2 and 3).

320. *Settlement of disputes.* Any dispute between the two States concerning the interpretation and application of the Agreement shall be settled in accordance with the Convention concluded between Finland and Sweden on 27 June 1924 concerning the establishment of a permanent Commission for investigation and conciliation¹⁸⁰ (chap. 10, art. 1).

321. *Transitional provisions.* If any installation or project referred to in this Agreement is built or carried out before

¹⁸⁰ League of Nations, *Treaty Series*, vol. XXIX, p. 19.

the Agreement enters into force or is built or carried out subsequently pursuant to a decision of a court or other authority based on previously applicable provisions, the previously applicable provisions shall be applied in determining the legality of the installation or project and the associated rights and obligations. However, the provisions of this Agreement concerning review shall apply to the said installation or project. Cases or other matters which, at the time of the entry into force of this Agreement, are pending in court or before any authority and which affect questions covered by the Agreement shall be dealt with and decided in accordance with the previously applicable provisions (chap. 10, art. 5).

Chapter II

OTHER INTERNATIONAL INSTRUMENTS

Argentina-Bolivia-Brazil-Paraguay-Uruguay

Act of Asunción on the use of international rivers, signed by the Ministers for Foreign Affairs of the States of the River Plate Basin at their Fourth Meeting held from 1 to 3 June 1971

322. In 1941, Argentina, Bolivia, Brazil, Paraguay and Uruguay met in a Regional Conference of the Countries of the River Plate, at Montevideo, for the purpose of solving common problems relating to economic and financial matters and commercial transit concerning the River Plate. The Conference adopted a resolution¹⁸¹ recommending to States represented at the Conference to establish joint technical commissions in order to study ways and means of improving the navigability of the rivers constituting the hydrographic system of the River Plate. The resolution also recommended that the States concerned should conclude agreements among themselves regarding the use of the River Plate for industrial and agricultural purposes.

323. In February 1967, the Ministers for Foreign Affairs of the five States met in Buenos Aires to discuss matters relating to the joint efforts for the development of the Plate Basin. In a joint Declaration,¹⁸² the Ministers expressed the determination of their Governments to carry out the joint and integrated study of the River Plate Basin with a view to realizing a programme of international as well as national works useful for the development of the region. The Declaration also set up an Intergovernmental Co-ordinating Committee. The Committee was given the function to centralize and disseminate information, and to co-ordinate the joint action considered necessary.

324. The Second Meeting of the Ministers for Foreign Affairs of the River Plate Basin States was held in Santa Cruz de la Sierra, Bolivia, in May 1968. The Meeting adopted the "Act of Santa Cruz de la Sierra"¹⁸³ and the

Statute of the Intergovernmental Co-ordinating Committee.¹⁸⁴ In the Act, it was decided to hold meetings periodically for the purpose of considering harmonious and well-balanced development of the region, and to entrust the Committee with the task of preparing a draft treaty for securing the institutionalization of the River Plate Basin. The Committee was requested to submit, within 120 days, the draft treaty to the Governments for consideration.

325. In the following year, the First Extraordinary Meeting of the Foreign Ministers of the River Plate Basin States was convened in Brasilia to adopt the Treaty concerning the Basin of the River Plate which the Ministers of the five States signed on 23 April 1969.¹⁸⁵ The Ministers continued to meet in Brasilia, as the Third Regular Meeting of the Foreign Ministers, and discussed various matters relating to the River Plate Basin. Among the documents adopted by the Meeting was the "Act of Brasilia of 25 April 1969",¹⁸⁶ in which the Ministers recommended to the Intergovernmental Co-ordinating Committee that groups of experts be established for various purposes, and made the Committee responsible for carrying out studies relating to the formulation of operative projects for the execution of the new Treaty.

326. The Fourth Meeting of the Foreign Ministers of the River Plate Basin States met in Asunción from 1 to 3 June 1971 and adopted the "Act of Asunción"¹⁸⁷ containing 25 resolutions.¹⁸⁸ The texts of this Act and of resolutions Nos. 5, 6, 15, 22, 23 and 25 are reproduced below.

ACT OF ASUNCIÓN

The Ministers for Foreign Affairs of the Republic of Argentina, Mr. Luis María de Pablo Pardo; of the Republic of Bolivia, Mr. Huáscar Taborga Torrico; of the Federative Republic of Brazil, Mr. Mario Gibson Barbosa; of the Republic of Paraguay, Mr. Raúl Sapena

¹⁸⁴ *Ibid.*, pp. 157-162.

¹⁸⁵ For a summary of this Treaty, see paras. 60-64 above.

¹⁸⁶ *Ríos y Lagos Internacionales* . . . (*op. cit.*), pp. 175-178.

¹⁸⁷ *Ibid.*, pp. 183-186.

¹⁸⁸ The text of the Act and the resolutions annexed to it were provided by the Argentine Government. The text of resolution No. 25 was also transmitted by the Government of Brazil.

¹⁸¹ See p. 212 above, document A/5409, annex I, section B.

¹⁸² "La Declaración Conjunta de los Cancilleres de los Países de la Cuenca del Plata, 27 de febrero de 1967", reproduced in *Ríos y Lagos Internacionales* . . . (*op. cit.*), pp. 148-150.

¹⁸³ *Ibid.*, pp. 151-156.

Pastor; and of the Eastern Republic of Uruguay, Mr. José A. Mora Otero,

Considering the terms of the agreements reached in the past listed in the Joint Declaration of Buenos Aires, the Act of Santa Cruz de la Sierra, and in the Act of Brasilia,

Aware of the responsibility which devolves upon them in view of the entry into force of the Treaty of the River Plate Basin, which has occurred since their last Meeting,

Determined to give practical and effective form to the action undertaken by the five countries with a view to the full utilization of the immense resources of the River Plate Basin, as described in the relevant provisions of the Treaty,

Desiring formally to recognize the advances made through the Intergovernmental Co-ordinating Committee since its last meeting and also to establish new guidelines for the joint work under the Treaty of the River Plate Basin, and in accordance with the initiatives proposed by each of the countries,

Agree to approve the resolutions annexed to this Act, which are listed below, as follows:

...

Resolution No. 5

ESTABLISHMENT OF THE RIVER PLATE BASIN DEVELOPMENT FINANCING FUND

The Fourth Meeting of Foreign Ministers of the countries of the River Plate Basin,

Considering

Paragraph IV (a) (iii) of the Act of Brasilia (1969),

Decides

1. To create a body with international juridical personality for an indeterminate period, to be called the "River Plate Basin Development Financing Fund";

2. To request the Intergovernmental Co-ordinating Committee to prepare a draft convention for the implementation of this agreement, which shall be submitted to the Governments with a view to its consideration at the next Meeting of Foreign Ministers. For this purpose, all the background information and documents submitted at this and previous meetings shall be taken into account.

Resolution No. 6

STUDIES BY THE INTERGOVERNMENTAL CO-ORDINATING COMMITTEE ON HARMONIZED NATIONAL LEGISLATIVE MEASURES TO FACILITATE AND PROMOTE REGIONAL ELECTRICAL INTERCONNECTIONS

The Fourth Meeting of Foreign Ministers of the countries of the River Plate Basin,

Considering

That the regional electrical integration of the River Plate Basin is an economic factor that will have a powerful influence on the development of the entire area; and

That, nevertheless, the purchase, sale, exchange and transmission of electric power by the member States will be made difficult by the lack of harmonized legislation in the countries concerned that would embrace the many complex factors that come into play in this field,

Decides

To request the Intergovernmental Co-ordinating Committee to ensure the continuation of the studies on this question, with the aim of suggesting to the countries of the Basin standardized national legislative measures which would facilitate and promote regional electrical interconnections.

Resolution No. 15

IMPORTANCE OF TAKING HEALTH PROBLEMS INTO ACCOUNT IN STUDIES AND PLANS FOR THE DEVELOPMENT OF THE BASIN

The Fourth Meeting of Foreign Ministers of the countries of the River Plate Basin,

Considering

That there are grave health problems arising from ecological relationships in the geographic area of the River Plate Basin, which have an

unfavourable impact on the social and economic development of the region;

That this health syndrome is related to the quality and quantity of the water resources;

That close co-ordination and co-operation between the countries concerned in programmes for the control and eradication of these diseases is important;

That these problems are aggravated by the shortage of medical resources, particularly in the rural areas,

Decides

1. To emphasize the importance of taking health problems into account in plans and studies for the development of the Basin and to incorporate specific health activities in such plans and studies;

2. To recommend that when it is considering the health aspects of projects for the Basin, the Intergovernmental Committee on Co-ordination, while being careful to avoid duplication with the work on water resources being done by the Group of Experts on that subject, should bear in mind the recommendations and decisions adopted by the Ministers of Health of the member countries at their periodic meetings and duly communicated to the competent national policy-making levels;

3. To transmit to the Intergovernmental Co-ordinating Committee CI/RC/IV/Working Paper No. 4.1 for its consideration and study in consultation with the Ministers of Health of the countries of the Basin through the regular channels.

Resolution No. 22

JOINT STUDIES ON THE MULTIPURPOSE USE OF THE WATER RESOURCES OF THE PILCOMAYO RIVER BASIN

The Fourth Meeting of Foreign Ministers of the countries of the River Plate Basin,

Considering

That project B-1, adopted in accordance with the Act of Santa Cruz de la Sierra and welcomed by the Second Meeting of the countries of the River Plate Basin, refers to the decision of the Governments of Argentina, Bolivia and Paraguay to undertake joint studies of the Pilcomayo River Basin and of the upper basin of the Bermejo River, with a view to the multipurpose use of its water resources;

That, according to the report submitted by the Intergovernmental Co-ordinating Committee to this Conference, the activities concerning the upper basin of the Bermejo River are in progress, under agreements between the Governments of Argentina and Bolivia and the General Secretariat of OAS;

That it is necessary to proceed with the execution of the above-mentioned project B-1, in so far as it concerns the River Pilcomayo basin;

Decides

1. To recommend that the Governments of Argentina, Bolivia and Paraguay should expedite the formulation of the terms of reference for joint studies of the River Pilcomayo Basin for the multipurpose use of its water resources;

2. To request the Intergovernmental Co-ordinating Committee to make the necessary arrangements for that purpose with the international organizations involved in technical and financial co-operation, in accordance with the guidelines established in section II of the Act of Brasilia.

Resolution No. 23

STUDY AND PROPOSALS ON REGULATIONS FOR THE PREVENTION OF HYDRO-CARBON POLLUTION OF THE RIVERS OF THE RIVER PLATE BASIN

The Fourth Meeting of Foreign Ministers of the countries of the River Plate Basin,

In view of

The need to control water pollution and preserve as far as possible the natural qualities of the water as an integral part of a policy in the conservation and utilization of the water resources of the Basin;

Bearing in mind

The considerations and suggestions made by the Second Meeting of Experts on Water Resources,

Decides

To recommend that the Intergovernmental Co-ordinating Committee should study and propose rules to prevent hydrocarbon pollution of the rivers of the River Plate Basin.

Resolution No. 25

DECLARATION OF ASUNCIÓN ON THE USE OF INTERNATIONAL RIVERS

The Fourth Meeting of Foreign Ministers of the countries of the River Plate Basin,

Decides

To endorse all the resolutions so far adopted in this field and to express its particular satisfaction at the results of the Second Meeting of Experts on Water Resources, held at Brasilia (18–22 May 1970). They also wish to express their conviction that such an important subject will continue to be dealt with in the same spirit of frank and cordial collaboration at the third Meeting of this Group, convened for 29 June 1971.

The Foreign Ministers consider that it is of real value to record the fundamental points on which agreement has already been reached, on the basis of which the studies on this subject are to proceed:

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

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

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.

5. The States shall do their best to maintain the best possible conditions of navigability on the reaches of the rivers under their sovereignty and shall adopt for that purpose whatever measures may be necessary to ensure that any permanent works that are constructed do not interfere with the other present uses of the river system.

6. When executing permanent works for any purpose on the rivers of the Basin, the States shall take the necessary steps to ensure that navigability is not impaired.

7. When executing permanent works on the navigable waterways system, the States shall ensure the conservation of the living resources.

Argentina–Chile

*Act of Santiago concerning hydrologic basins, signed on 26 June 1971*¹⁸⁹

327. This Act, which was signed by the Ministers for Foreign Affairs of Argentina and Chile, representing their respective Governments, reads as follows:

Guided by the spirit of solidarity and friendly co-operation which characterizes the relations between their Governments and peoples,

Bearing in mind the increasing importance of the use of the waters of rivers and lakes and the desirability of expressly recognizing general rules of international law and of supplementing them with specific regulations governing the utilization of the waters common to the two countries,

¹⁸⁹ Text provided by the Argentine Government.

Considering the necessity of conserving the living resources of their international river basins and of preventing the pollution thereof in order to improve ecological conditions,

Desirous of co-ordinating the works undertaken in the said basins with a view to their optimum utilization and of avoiding the difficulties which may arise between the two countries from the improper or indiscriminate use of their common waters,

Determined to conclude as soon as possible a Convention containing complete and detailed regulations governing the utilization of the water resources of the Argentine-Chilean river basins,

Have agreed on the following fundamental rules which shall serve as a basis for the aforementioned Convention and which they declare to be immediately applicable:

1. The waters of rivers and lakes shall always be utilized in a fair and reasonable manner.

2. The Parties shall avoid polluting their river and lake systems in any manner and shall conserve the ecological resources of their common river basins in the areas within their respective jurisdictions.

3. Prior to the utilization of the waters of contiguous reaches of international rivers, a bilateral agreement must be concluded between the riparian States.

4. Each Party shall recognize the other's right to utilize the waters of their common lakes and successive international rivers within its territory in accordance with its needs, provided that the other Party does not suffer any appreciable damage.

5. If a State intends to utilize a common lake or successive river, it shall first transmit to the other State the plans for the works, the plan of operations and other data which may be useful in determining the impact of the works in the territory of the neighbouring State.

6. Within a reasonable period of time, which in any case shall not exceed five months, the requested Party must indicate whether there are any aspects of the plans or plan of operations which might cause it appreciable damage. If so, it shall indicate the technical reasons and calculations substantiating that claim and shall suggest changes in the plans or plan of operations in question which would avoid such damage.

7. Disputes arising in that connexion shall be submitted to a Mixed Technical Commission for settlement. In the event that the technical experts should disagree, they shall prepare reports expressing their views for consideration by the Governments. The Governments shall endeavour to find a solution through the diplomatic channel or by any other means they may agree upon, striving always to reach an amicable and just solution.

8. The Parties shall exchange hydrological, meteorological and cartographical data as follows:

(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 request of the Parties; and

(c) As far as possible, the States shall regularly exchange the findings from their measurements in the various basins, thereby facilitating the task of determining the characteristics of the different flow systems.

...

Argentina–Uruguay

*Declaration on water resources, signed at Buenos Aires on 9 July 1971*¹⁹⁰

328. The text of this Declaration, which was signed by the Ministers of Foreign Affairs of Argentina and Uruguay, representing their respective Governments, reads as follows:

Guided by the spirit of traditional solidarity and friendly co-operation which characterizes the relations between their Governments and peoples, and

Seeking to ensure a reasonable and fair participation by the States in the use and benefits of the waters of international rivers and their tributaries,

¹⁹⁰ Text provided by the Argentine Government.

Confirming the principles outlined in resolution LXXII of the Seventh International American Conference of Montevideo of 1933 and the rules agreed upon in the Tripartite Declaration signed at Buenos Aires on 23 September 1960, the Treaty of the River Plate Basin, and the Declaration of Asunción on the Use of International Rivers adopted by the Fourth Meeting of Ministers for Foreign Affairs of the Countries of the River Plate Basin,

Mindful that the two Governments have already begun to develop the River Uruguay, as prescribed in the time-table in force for the Salto Grande Dam and in execution of the joint efforts to draw up the River Uruguay Statute, thus providing tangible evidence of the deep understanding and close co-operation between the two Parties,

Noting that another meeting between the Presidents of their respective countries has been arranged for this day, which further emphasizes the common will of their two peoples to develop new and effective forms of co-operation and rapprochement,

The two foreign ministers express their agreement on the following basic principles governing the régime for the utilization of international rivers and their tributaries:

1. The river waters shall be utilized in fair and reasonable manner.
2. States shall refrain from polluting international rivers and tributaries in any manner and shall conserve the ecological resources in the areas within their respective jurisdictions.
3. If a State intends to utilize the waters of a river, it shall first transmit to the other States concerned the plans for the works, the plan of operations and other data which may be useful in determining the impact of works in the territories of those States.

4. Within a reasonable period of time, the requested Party must indicate whether there are aspects of the plans or plan of operations which may cause it appreciable damage. If so, it shall indicate the technical reasons and calculations substantiating that claim and shall suggest changes in the plans or plan of operations designed to avoid such damage.

5. Disputes arising in that connexion shall be submitted to a Joint Technical Commission for settlement. In the event that the technical experts should disagree, they shall prepare a report expressing their views for consideration by the Governments. The Governments shall endeavour to find a solution through the diplomatic channel or by any other means they may agree upon, striving always to reach an amicable and just solution.

...

Argentina-Bolivia

*Act of Buenos Aires on Hydrologic Basins, signed on 12 July 1971*¹⁹¹

329. The provisions of this Act are broadly similar to those of the Act of Santiago of 26 June 1971 between Argentina and Chile concerning Hydrologic Basins, the text of which is reproduced above.¹⁹²

¹⁹¹ Text provided by the Argentine Government.

¹⁹² See para. 327 above.

Part Three

Survey of Studies made or being made within intergovernmental organizations

Chapter I

UNITED NATIONS

A. United Nations Conference on the Human Environment (1972)

330. The United Nations Conference on the Human Environment (Stockholm, 5-16 June 1972) adopted a Declaration on the Human Environment consisting of a preamble and 26 principles designed "to inspire and guide the peoples of the world in the preservation and enhancement of the human environment". It also adopted within the framework of an Action Plan for the Human Environment 109 recommendations for action at the international level. The Declaration and recommendations have a very wide scope extending far beyond the subject matter of this report. Those of their elements which seem relevant to the question under consideration are reproduced below.

(a) Declaration of the United Nations Conference on the Human Environment

...

II. Principles

...

Principle 2

The natural resources of the earth including the air, water, land, flora and fauna and especially representative samples of natural ecosystems must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.

...

Principle 6

The discharge of toxic substances or of other substances and the release of heat, in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted in order to ensure that serious or irreversible damage is not inflicted upon ecosystems. The just struggle of the peoples of all countries against pollution should be supported.

Principle 7

States shall take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea.

...

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.

Principle 22

States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.

...

Principle 24

International matters concerning the protection and improvement of the environment should be handled in a co-operative spirit by all countries, big or 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.¹⁹³

...

(b) Action Plan for the Human Environment

...

Recommendations for action at the international level

...

ENVIRONMENTAL ASPECTS OF NATURAL RESOURCES MANAGEMENT

...

Recommendation 51

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.

(a) In accordance with the Charter of the United Nations and the principles of international law, full consideration must be given to the right of permanent sovereignty of each country concerned to develop its own resources;

(b) The following principles should be considered by the States concerned when appropriate:

- (i) 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;
- (ii) The basic objective of all water resource use and development activities from the environmental point of view is to ensure the best use of water and to avoid its pollution in each country;
- (iii) The net benefits of hydrologic regions common to more than one national jurisdiction are to be shared equitably by the nations affected;

(c) Such arrangements, when deemed appropriate by the States concerned, will permit undertaking on a regional basis:

- (i) Collection, analysis, and exchanges of hydrologic data through some international mechanism agreed upon by the States concerned;
- (ii) Joint data-collection programmes to serve planning needs;
- (iii) Assessment of environmental effects of existing water uses;
- (iv) Joint study of the causes and symptoms of problems related to water resources, taking into account the technical, economic, and social considerations of water quality control;
- (v) Rational use, including a programme of quality control, of the water resource as an environmental asset;
- (vi) Provision for the judicial and administrative protection of water rights and claims;
- (vii) Prevention and settlement of disputes with reference to the management and conservation of water resources;
- (viii) Financial and technical co-operation of a shared resource;

(d) Regional conferences should be organized to promote the above considerations.¹⁹⁴

...

¹⁹³ *Report of the United Nations Conference on the Human Environment* (United Nations publication, Sales No. E.73.II.A.14), pp. 4-5.

¹⁹⁴ *Ibid.*, pp. 6, 7 and 17.

IDENTIFICATION AND CONTROL OF POLLUTANTS OF BROAD INTERNATIONAL SIGNIFICANCE**A. POLLUTION GENERALLY**

...

Recommendation 71

It is recommended that Governments use the best practicable means available to minimize the release to the environment of toxic or dangerous substances, especially if they are persistent substances such as heavy metals and organochlorine compounds, until it has been demonstrated that their release will not give rise to unacceptable risks or unless their use is essential to human health or food production, in which case appropriate control measures should be applied.

Recommendation 72

It is recommended that in establishing standards for pollutants of international significance, Governments take into account the relevant standards proposed by competent international organizations, and concert with other concerned Governments and the competent international organizations in planning and carrying out control programmes for pollutants distributed beyond the national jurisdiction from which they are released.

...¹⁹⁵**B. Economic and Social Council and Subsidiary Bodies**

331. There have been a number of Economic and Social Council resolutions, as well as a number of reports, studies and other documents prepared within the framework of the Council and its Committee on Natural Resources which concern the development and utilization of water resources. As the present supplementary report is concerned with the legal aspects of the utilization and protection of international watercourses, only the elements of this documentation which have a direct or indirect bearing on this subject are briefly summarized in this section.

1. ECONOMIC AND SOCIAL COUNCIL*(a) The initial stages*

332. The main preoccupation which, in the initial stages, guided both the work of the Economic and Social Council in this field and the relevant studies prepared by the Secretary-General at the request of the Council has been that of developing co-operation between States and strengthening co-ordination between the activities of the various international organizations concerned.¹⁹⁶ In 1956, the Council gave its activities in this field a more specific orientation by establishing, under resolution 599 (XXI) of 3 April 1956, a Panel of Experts on Integrated River Basin Development. This Panel prepared a report¹⁹⁷ which was

¹⁹⁵ *Ibid.*, p. 20.

¹⁹⁶ See, for example, "International co-operation on water control and utilization: report of the Secretary-General under Council resolution 346 (XII) E/2205 and Corr.1 and Add.1); "International co-operation with respect to water resource development (Council resolution 417 (XIV)); report by the Secretary-General" (*Official Records of the Economic and Social Council, Eighteenth Session, Annexes*, agenda item 4, document E/2603); "International co-operation with respect to water resource development: report of the Secretary-General" (*Ibid.*, *Twenty-first Session, Annexes*, agenda item 7, document E/2827) (prepared under Council resolution 533 (XVIII)).

¹⁹⁷ *Integrated River Basin Development* (United Nations publication, Sales No. 58.II.B.3).

the outcome of meetings held in New York in January and November 1957. Relevant passages from this report are reproduced in the Secretary-General's initial report on the legal problems relating to the utilization and use of international rivers.¹⁹⁸ A new version of the report of the Panel of Experts was issued in 1970.¹⁹⁹ With the exception of minor editorial changes and certain explanatory foot-notes, the main text of the original version remained unchanged. However, certain alterations were made to the annexes. Annex VII to the new version reproduces the text of the Helsinki Rules on the Uses of the Waters of International Rivers, adopted by the International Law Association at its fifty-second Conference (Helsinki, 1966).

(b) *Study on "Abstraction and Use of Water: A Comparison of Legal Régimes" submitted under resolution 1033 D (XXXVII)*

333. On 14 August 1964, the Economic and Social Council adopted resolution 1033 D (XXXVII) on water resources development, endorsing the Secretary-General's proposals concerning the terms of reference of the Water Resources Centre, which included paying "special attention to the administrative and legislative problems related to water resources development in developing countries".²⁰⁰ To this end, a study on legal régimes relating to the abstraction and use of water was prepared within the Secretariat of the United Nations. A summary of the problems raised and discussed in this study may be deduced from the following paragraphs:

In view of this keen competition for water for consumptive uses, administrations are faced with major questions: whether the legal framework is adequate for the job; whether the laws encourage the efficient use of water or impede the necessary and desired development; how much should be borrowed from other legal systems and how much retained from the old and the customary.

Water laws in the past were the product of many factors and influences, in which political structure and climatic conditions made for differentiation of a common regional heritage. In Europe, for instance, political structure rather than climate seems to have accounted for variations in the water law principles bequeathed by Roman law. In the United States of America, on the other hand, climate was the factor that forced the west to deviate from the common-law heritage. The powerful influence of climate is also shown by the fact that, more often than not, water law systems introduced through colonization into areas with entirely different climatic conditions have had to be drastically modified. This happened in Australia and other arid countries of primarily British settlement and influence. The Spanish system was retained by South American countries with dry climates, but not by the more humid countries, which preferred to follow the French model.

The question arises whether these factors are still at work; or whether the increased use of water in general, and for irrigation in particular, tends to offset climatic differences and to promote a certain uniformity in the solution of problems that have become more and more alike in all parts of the world. In this respect, it may be mentioned that areas with very disparate climates, such as Israel, and Iowa and Alaska in the United States of America, have chosen to treat all waters as public, a common device for increasing the control of the administration over water disposition. On the other hand, England and Wales (United Kingdom), when introducing a permit system, felt compelled—

perhaps by tradition—to retain a great many features of long-established riparianism.

Administrative hesitation between old and new systems is best shown in the treatment of rights acquired under a system that is being replaced. The change may be dictated by increased water use, and a system that has proved adequate for an arid region may be introduced to a more humid one, as, for example, the prior appropriation system of the arid western part of the United States of America was adopted by the state of Mississippi. To a great extent, however, the treatment of prior systems of water use rights is influenced by political structure.

Iran, it would appear, has managed to make a drastic break with the past; whereas in the United States, in many instances, where the old rights were abolished the status of the new laws remains in doubt.

Water law has been used in the past and still is being used as a tool for purposes of social engineering. The question is whether that makes for efficiency—undoubtedly an important objective of water legislation—and, if not, the extent to which efficiency may have to yield to other desiderata incidental to water use. In Peru and Chile, for example, water law is employed to achieve a more equitable distribution of land, as was done in the past in the United States of America to help settle the west, and in Australia to settle the Murray River basin. The close association of irrigation agriculture with social policy is as relevant, then, to old and densely populated areas as to newly settled regions; for in densely populated areas redistribution of land can often be achieved only concomitantly with the intensive application of water to small parcels of land that would otherwise be incapable of supporting a family. Small-scale proprietors, however, have not the means to support expensive irrigation works: and, thus, another problem is linked to the first, namely, how to finance ever-larger irrigation projects.

In arid countries where this problem has always been acute, waterworks have long been built, financed and often managed by the Government. In humid countries this trend is as yet less evident. A good example of the difference between the two types of areas is furnished by the United States of America. In the arid west, the federal Government has been responsible for the water-supply since the beginning of the twentieth century; whereas in the east, water-supply is still chiefly a matter for each landowner individually.

When the role of the administration grows in this fashion, the question is whether it is adequately counterbalanced by what amounts to the unionizing of users. Users' associations are of ancient tradition and have spread to most countries that use water for irrigation—another example of a tendency towards conformity in water law—but not everywhere do they show the same vitality. In some countries, they are almost moribund and play only a minor role on minor canals; in others, they are no more than a "rubber-stamp" for administrative decisions. Where they are large enough and financially solvent, as in Chile or in some parts of the western United States of America, for example, the question is whether they become equal partners with the central Government for the development of the water resources of a region.

This study discusses in a systematic way the solutions given in the customary law, statutes and regulations, and, where relevant, the administrative and court decisions of more than fifty countries, representing the three major systems of water distribution—riparian, prior appropriation and permit—to the problem of getting water from the source of supply to the user who needs it.

The discussion covers the legal water régimes of countries throughout the world:

...

More than 250 pieces of legislation have been studied and analysed to provide a basis for comparison. In order to systematize the material amassed, the ways in which the major systems of water law usually handle the problem of water distribution are described first, thus setting the stage for a detailed and comparative treatment of particular factors in the acquisition and use of water. These factors—beginning with the question of who can acquire what water and how—include the types of suppliers and their rights and duties in each system, and the role of users' associations; the powers and duties of agencies granting authorizations; procedural requirements for acquiring a water use right; methods of payment for waterworks and water; quantity of water allotted; duration of right; attachment of right to

¹⁹⁸ See p. 215 above, document A/5409, annex II, B.

¹⁹⁹ United Nations publication, Sales No. E.70.II.A.4.

²⁰⁰ *Official Records of the Economic and Social Council, Thirty-seventh Session, Annexes*, agenda item 14, document E/3894/Rev.1., p. 26.

the land; protection of acquired rights under existing laws as well as under earlier ones; and loss, revocation and suspension of right.

Lastly, an attempt is made to deduce from the material amassed broad trends in legislation concerning water use rights.²⁰¹

2. COMMITTEE ON NATURAL RESOURCES

334. The Committee on Natural Resources was established by Economic and Social Council resolution 1535 (XLIX) of 27 July 1970. The issues before the Committee in connexion with international water resources development were summarized as follows in a report prepared by the Secretary-General:

1. At a time when the international aspects of water utilization were restricted almost entirely to navigation, small scale irrigation and fishing, with ground-water and atmospheric water reserves not even calculated, and the self-cleaning capacity of the available water far exceeding waste disposal and effluent dilution requirements, the prevailing terminology—"international waterways", "international rivers" or "international water courses"—reflected that era's need for international co-ordination and joint use. With the rapid expansion of increasingly complex societies in most parts of the world, this early, minimal approach proved insufficient. Multiple, often conflicting uses and much greater total demand have made imperative an integrated approach to river basin development in recognition of the growing economic as well as physical interdependencies across national frontiers.

2. Over the last few decades considerable experience has been gained with regard to the development and use of international water resources [defined as water in a natural hydrological system shared by two or more countries] in different parts of the world ...

3. The occurrence of international water resources offers a unique kind of opportunity for the promotion of international amity. The optimum beneficial use of such waters calls for practical measures of international association where all parties can benefit in a tangible and visible way through co-operative action. Water is a vital resource, the benefits from which can be multiplied through joint efforts and the harmful effects of which may be prevented or removed through joint efforts. An incentive towards international co-operation thus demonstrably accompanies the status of co-basin state in an international river basin. Moreover, when plans are made and implemented jointly, valuable experience is gained with international institutions both at the policy and working levels. A characteristic trend in more recent international arrangements for water resources development has been the broadening of the scope and diversity of the parties' international water development activities. New dimensions are being added to the traditional organizational patterns developed in Europe and in North America, which were largely based on single-purpose and non-consumptive uses of the international rivers.

The expanding scope of international water resources development

4. The fundamental factor responsible for the changing patterns of international co-operation for water resources development and use has been the above-mentioned recognition of physical and economic interdependence.

5. Overdrawing of ground-water resources in one country may have an effect upon the surface water discharge and thus, say, the navigation potential in another. The use of river water for cooling in thermal power plants may alter the fisheries potential downstream; industrial effluents discharged into the stream in one country may make water unsuitable for municipal or even agricultural uses in another country. Cloud seeding operation in one country can have unpredictable, possibly harmful effects in a country downwind as a result either of an increase or decrease in expected precipitations at a particular time.

...

²⁰¹ *The abstraction and use of water: a comparison of legal régimes* (United Nations publication, Sales No. E.72.II.A.10), pp. 4-7.

The need for adequate information on international water resources and their development potential

8. The major incentive to co-operate in the development of international water resources depends largely upon an identification and appreciation of the benefits to be derived from such co-operation. It is thus imperative that the benefits in quantitative and qualitative terms be clearly known to the national decision makers concerned. International co-operation should, to the fullest extent possible, be based upon reliable knowledge and a thorough understanding of alternative courses of action.

9. Unfortunately, for a large portion of the world's international water resources, information is still insufficient or non-existent. Nevertheless in many of these cases co-operative efforts by the Governments in developing these resources could provide valuable benefits to the people in the area. To some extent "international projects" have received second priority in national water development plans and often there are unrealistic expectations or misinformed apprehensions about international undertakings.

...

The need for new institutional solutions

12. As the pressure rises for more extensive development and use of international water resources, and the potential for conflict and the need for co-operation becomes every day more evident, water administrators, political leaders, regional planners and international lawyers are called upon to devise improved institutional frameworks capable of coping with the increased requirements for international co-operation. New flexible and broad-based channels of communication are needed between countries embarking upon the development and use of international water resources and those organizations and individuals having experience and information in these fields.

13. The range of alternative institutional arrangements is impressive. It includes, for instance, the mere nomination of one official in each country who is empowered to exchange data or even development plans for a specific purpose; or it may entail the establishment of an international basin agency with its own professional staff, technical services and an intergovernmental governing body.

14. Institutional arrangements should be responsive to the specific co-ordination requirements in each case. Taking a long-term perspective, flexibility is also necessitated by the changing demands for water, the nature and characteristics of the resource base, and by other dynamic environmental influences. In no case, however, should countries merely copy institutional arrangements in another basin. The advisory services dealt with in document E/C.7/3 could play a most important role in this regard and would of course be able to draw on the comparative experience accumulated in the United Nations from work with more than a dozen major international river basins over the past ten years.

The need for an adequate legal framework

15. A map prepared for the *Integrated River Basin Development*²⁰² identifies about 170 international drainage basins in the world. For more than half of these basins no international agreements are in force and for many more legal and institutional arrangements are inadequate to meet present complex requirements for co-ordinating and realizing water development and use for multiple purposes. With recent exceptions, international agreements have so far not expressly included ground water within the scope of international co-operation. No agreements are known to exist with regard to international co-operation in the use of atmospheric water resources; however, twenty-one states in the United States of America have enacted legislation relating to weather modification.

16. The need for some official codification and progressive development of the general rules of international law regulating the development and use of international water resources has been the growing concern of many Governments, international organizations and non-governmental international and national associations, as well as of the academic community ...

...

²⁰² See para. 332 above and foot-note 199.

18. In whatever form legally binding rights and obligations of countries with regard to the development of international water resources are determined, it is essential to keep the fundamental means-end relationship in mind that also applies to international water resources agreements and law. The fundamental propositions, actually the definition of the problems *per se* will depend not only upon the actual development objectives of the contracting countries but upon the input provided by the aforementioned broad range of different disciplines concerned with different aspects of water resources development.

19. The recent and growing concern over marine pollution and the fact that the bulk of such pollution is a result of river discharge (see document E/C.7/2/Add.8 on river discharge and marine pollution) highlights the fact that existing international river concepts and agreements impose no restriction on the downstream country which is free to pollute the river. A new relationship, therefore, should be considered, namely, the relationship of the activities of one country on a river in relation to the world oceans, or broadly speaking, the relationship of the river to the ocean and not only the relationship of the activities of one country to the other concerning one river.

20. The Committee on Natural Resources may wish to consider the desirability of offering to the International Law Commission information and guidelines on economic, social, technical and administrative aspects of international water resources development, which factors underlie any successful legal régime in this area and therefore should be taken fully into account in deliberations about principles and rules of law governing inter-state relations with respect to water resources.²⁰³

335. In another report submitted to the Committee on Natural Resources, and dealing with "River discharge and marine pollution" the Secretary-General stated the following:

...

2. Though rivers in the past have been the arteries of human settlement and development, we do not yet possess full information on them all. We know that some of the rivers carry large amounts of silt, but information on other material carried by them is being assembled only now. Of the many rivers in the world, most of the big ones are international and so the bulk of river discharge comes from international rivers.

...

River discharge and marine pollution

21. The preceding paragraphs are intended to demonstrate that polluted river waters discharged into the ocean have to be considered as a principal contributor to ocean pollution. As industrialization in river basins, and in particular in the estuary regions of rivers has progressed, the polluting consequences of river discharge on the ocean has assumed large-scale proportions ...

22. The growing quantities of wastes being carried by rivers to the oceans will make it necessary to view river basins as part of a larger interdependent system. Consequently the interests of all coastal countries with regard to the use of rivers as major waste disposal agents will require broader international consideration keeping in mind the related interests in ocean resources and ocean life.

23. In view of the increasing use of rivers as waste disposal agents, a practice which results in marine pollution, it seems increasingly necessary that water quality standards for water users in the downstream regions of rivers be established, taking due account of the quality requirements of the ocean waters into which rivers discharge.

...

25. There seems to be a need for broader concepts of water resources management. In particular, it has become necessary to consider and manage the use of surface water resources as major waste disposal agents together with its effect on marine pollution. Such a concerted approach to both management and marine pollution would require the setting and effective application of water quality standards for river waters discharged into the ocean by coastal countries in con-

formity with the requirements for international marine pollution control. Coastal countries, in addition to upstream co-basin countries in an international river basin, would have to accept an equitable limitation of their use of river waters, including waste disposal and effluent dilution, in order to safeguard water quality in conformity with the interests of all countries in marine pollution control. To some extent the obligations and rights of equitable utilization of water resources, a concept that has evolved over the past decades with regard to the use of international non-maritime water resources would need to be extended beyond the river basin system to a larger inter-dependent system including the oceans.

26. It is, therefore, necessary to recognize that marine pollution is essentially a river management problem. Keeping in mind the growing urgency of an effective solution to the problem of marine pollution, and in view of the objectives and scope of the forthcoming United Nations Conference on Human Environment, the Committee on Natural Resources may wish to recommend that the Secretary-General, in co-operation with other United Nations organizations concerned, convene an interdisciplinary group of experts covering aspects of both river basin management and ocean pollution in a comprehensive manner and making appropriate recommendations. The Committee on Natural Resources may further wish to consider the recommendation that the report of this group of experts be submitted to an intergovernmental working group which, on the basis of the experts' report, could prepare specific recommendations to the United Nations Conference on Human Environment.²⁰⁴

336. In the course of its first three sessions, the Committee on Natural Resources *inter alia* formulated "Guidelines for action in the development of natural resources"²⁰⁵ which include a section on objectives and priorities in the field of water resources development. It also examined the technical and economic aspects of international river basin development.²⁰⁶ Finally, it recommended to the Economic and Social Council that it approve the holding in 1977 of a United Nations water conference.²⁰⁷ This recommendation was endorsed by the Council in resolution 1761 C (LIV) of 18 May 1973. The draft agenda prepared for the Conference by the Intergovernmental Panel of Specialists on the United Nations Water Conference established under Economic and Social Council resolution 1973 E (LII) of 2 June 1972 includes the following questions:

2. Policy measures (current and future) required to promote the national use of water resources.

3. Implementation of national water policies and programmes:

(a) Organizational and administrative structures;

(b) Water legislation and regulatory measures;

(c) Economic aspects including prize systems;

4. Comprehensive planning for the use of water:

(a) National and regional assessment;

(b) Planning institutions;

(c) Consideration of multiple objectives in planning, such as economic development and environmental effects of proposed programmes.

5. Optimization in planning of water resources, taking into account their multiple uses.

6. Economic, social, legal, administrative and environmental aspects of inter-basin transfer of water, including water grids.

²⁰⁴ E/C.7/2/Add.8/Rev.1, pp. 1, 6 and 7-8.

²⁰⁵ See *Official Records of the Economic and Social Council, Fifty-second Session, Supplement No. 5 (E/5097 and Corr.1)*, para. 20.

²⁰⁶ *Ibid.*, *Fifty-fourth Session, Supplement No. 4 (E/5247)* paras. 129-137; see also document (E/C.7/35), an updated version of which is now in preparation.

²⁰⁷ *Official Records of the Economic and Social Council, Fifty-fourth Session, Supplement No. 4 (E/5247)*, para. 114.

²⁰³ E/C.7/2/Add.6, pp. 1-7.

7. International co-operation with regard to water resources common to more than one national jurisdiction, in particular experience with international river basin organization.²⁰⁸

3. REGIONAL ECONOMIC COMMISSIONS²⁰⁹

Economic Commission for Europe

(a) *Recommendations concerning the hydro-electric development of international rivers*

337. The ECE Committee on Electric Power has dealt with matters relating to international rivers. The following relevant recommendations were elaborated under its auspices in the early stages of its work:

(i) *Recommendation No. 2 submitted to Governments by the Committee on Electric Power with a view to facilitating the hydro-electric development of contiguous rivers and lakes (adopted by the Committee on 3 October 1957)*

338. A study on legal aspects of the hydro-electric development of rivers and lakes of common interest,²¹⁰ prepared within the ECE secretariat, was published in 1950, and a revised text²¹¹ was issued in 1951. It was undertaken as the result of the concern expressed in the Committee on Electric Power of ECE at the complexity of the legal problems entailed in the hydro-electric development of certain waterways and lakes which border or traverse two or more States. The Committee felt that difficulties of a legal nature might hamper the harmonious development of a European policy on electric power. It therefore requested that this aspect of the problem should be examined and solutions in principle sought which might prove acceptable to the various States, and at the same time be satisfactory from the point of view of the European economy. The object of the study was to help Governments to find suitable solutions for a series of extremely practical problems.

339. The study defines the fundamental facts of the situation presented, reviews the ways in which this problem has been dealt with by States in specific instances in the past, and assesses the measures of their success in each such case.

340. In its concluding part, the document contains the following statements:

A State has the right to develop unilaterally that section of the waterway which traverses or borders its territory, in so far as such development is liable to cause in the territory of another State, only slight injury or minor inconvenience compatible with good neighbourly relations.

²⁰⁸ E/C.7/31, p. 4.

²⁰⁹ The Secretariat of ECLA indicated, in a letter dated 17 January 1973, that its studies on water development had only incidentally touched on the subject and that the problem had never been specifically dealt with in ECLA's reports. The Secretariat of ECAFE stated, in a letter dated 10 January 1973, that the problem of pollution in water-courses had received only limited and comparatively recent attention in the ECAFE region. It added that some information had been assembled by member countries in preparation for the United Nations Conference on Human Environment and that the subject "technical measures and socio-economic considerations entailed in the abatement of water pollution" had been discussed at the tenth session of the Regional Conference on Water Resources Development held at Manila from 18 to 25 September 1972.

²¹⁰ E/ECE/EP/98.

²¹¹ E/ECE/EP/98/Rev.1 and Corr.1.

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

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

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

Some authors contend, like Kaufman, that States are obliged to have regard "in just measure" [*Annuaire de l'Institut de droit international*, vol. 24, p. 184] for the interests of other States; like von Ullmann, that riparian States are found to act in conformity with the principle of "equity" [*Blätter für administrative Praxis*, 1910, p. 65] or, finally, like von Bar that a State must not make use of a waterway in such a manner as to change "its character" [*Annuaire de l'Institut de droit international*, vol. 24, p. 156]. Treaties are concerned with safeguarding the "legitimate interests" of the other States... The truth is that it is impossible to lay down any hard and fast principle; only appraisal of the injury inflicted in concrete cases can determine how serious it is. But since a formula must be found, that of good neighbourly relations will be retained.

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

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

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

In studying the additional clauses we have seen examples of this compensation for injury being made in the form of power supplies. We have also seen the considerable extent to which these negotiations, essential in the case of hydro-electric development, are facilitated by the appointment for that purpose of a joint commission composed of technicians.²¹²

341. The problems raised by the Study were examined by the Group of Experts for the Study of Legal Questions. The Group made a number of recommendations and drew a distinction between successive rivers, i.e., rivers which cross the frontier, and contiguous rivers, i.e., rivers which form the frontier between two or more States.

342. The Committee on Electric Power adopted those recommendations.²¹³ In the case of successive rivers, the Committee felt that in present circumstances the preparation of a general convention presented difficulties. The hydro-electric development of a successive river raised specific issues which could only be solved by means of agreements between the interested countries. At the same time, the conclusion of such agreements was liable to give rise to certain difficulties. On the other hand, the hydro-electric development of contiguous rivers raised a number of difficulties which were common to all countries. The Committee, therefore, put forward a recommendation to

²¹² *Ibid.*, p. 211.

²¹³ *Ibid.*, p. 301.

Governments on various points. The Committee's idea in making this recommendation was that its clauses might be reproduced in conventions concluded between the Governments of countries interested in the development of rivers forming their frontiers. The text of the recommendation is as follows:

The Committee on Electric Power,

Considering that the hydro-electric development of rivers or lakes serving as a frontier between two or more States—so-called contiguous rivers and lakes—is of increasingly great importance for the development of European electrical resources and for the satisfaction of the requirements of the European economy,

But that this development raises a certain number of political, legal and administrative difficulties concerning both the construction and the operation of plants,

Draws the attention of Governments to the importance of introducing into conventions regarding such development, clauses which might be drafted as follows:

Where two or more neighbouring States participate in the construction of works, such works shall be treated by the States concerned in the same way as if construction were taking place on their own territory, irrespective of the site chosen.

The two States agree that supplies of equipment and materials and the various services required for carrying out the harnessing shall not be charged import duties (customs duty etc.) irrespective of the site on which any of such supplies and services are actually used.

Similarly any taxes levied on exports in either of the two States shall not be levied by that State, irrespective of the site on which any such supplies and services are actually used.

Should special taxation be imposed in either of the two States, for instance in the form of a capital levy, the necessary measures shall be taken to grant adequate compensation to the other State for any damage sustained by it or by the natural or juridical persons under its jurisdiction.

The two States, each in so far as it is concerned, shall grant residence, working, entry, exit and any other similar permits required by persons needed by the concessionaires for the construction of the works.

Recommends

1. With regard to construction:

(a) that the best site should be selected after an examination of the locality by a joint commission composed of representatives of the two countries concerned, on the basis of technical considerations irrespective of the position of the frontier; this commission might also be entrusted with supervision of the fair and rational apportionment of supplies and services between the two countries;

(b) that in the event of a country setting up several joint commissions with another country, that country's representatives on these various commissions should consist, in part, of the same individuals;

2. With regard to operation:

(a) that power allocated to one of the two States and produced on the territory of the other should be exempted by the latter from all taxation, dues and legal restrictions of any kind, so that it may be freely transmitted to the former State, and be subject to the same conditions, in every respect, as power produced on its own territory;

(b) that the power allocated to each of the two States should be exportable to the other State in accordance with the legal provisions governing the export of electric power in force in the State entitled to that power;

(c) that if either State is unable to utilize the power allocated to it on its own territory, it should do nothing to prevent the power thus available from being exported to the territory of the other State;

(d) that the same facilities should be accorded to personnel operating the works as were laid down for the construction period;

3. More generally, with regard to the legal position of the common concessionaire:

(a) that taxes and dues on companies should be levied in accordance with the fiscal agreements and conventions on double taxation concluded between the countries concerned, but that taxes and dues on dividends should not include charges which would result in differentiation between the sums finally received by the shareholders;

(b) that fiscal agreements or conventions on double taxation, where these do not already exist, should be concluded between the countries concerned;

(c) that each of the two States should undertake to provide the joint concessionary undertaking, upon request, with the necessary currency transfer facilities, both during the construction period, and for the operating requirements of the works;

(d) that the above provisions regarding currency exchange regulations should be included in an agreement to be concluded between the two States for the payment of wages; such agreement should also make provision for the transfer by workers belonging to the other riparian State of their wages and allowances to their country of origin.²¹⁴

(ii) *Recommendation No. 4 submitted to Governments by the Committee on Electric Power with a view to promoting the hydro-electric development of successive rivers in Europe (adopted by the Committee on 26 May 1954)*

343. At its eleventh session in 1954, the Committee on Electric Power adopted the text of recommendation No. 4 which reads as follows:

The Committee on Electric Power,

...

Being of opinion that the hydro-electric development of rivers that flow through the territory of a number of States in turn and in so doing cross their frontiers—the so-called successive rivers—is becoming of increasing importance for the development of Europe's electric power resources and the satisfaction of the European economy's requirements,

but that such development, in most cases, raises a number of political, legal and administrative difficulties relating both to the building and the operation of plants;

Considering that, in order to facilitate the conclusion between States of agreements concerning the development and utilization of such rivers, it would be better to look for possible means of overcoming the difficulties which arise in this connexion, rather than contemplate the conclusion of a general convention or even prejudge at this juncture the possibility of making recommendations on the problem as a whole;

Considering it essential for this purpose to adopt a procedure in keeping with accepted standards of international courtesy and in the interests of the harmonious hydro-electric development of successive rivers in Europe;

...

Recommends that a State proposing to embark within its own territory on projects likely to have serious repercussions on the territory of other States, whether upstream or downstream, should first communicate to the States concerned such information as would enlighten them as to the nature of those repercussions;

Recommends that, in the event of objections being raised by the States concerned following such prior notification, the State proposing to embark on the projects should endeavour, by negotiations with those States, to reach an agreement such as will ensure the most economic development of the river system.²¹⁵

²¹⁴ *Ibid.*, p. 305. The text of the recommendation was also circulated as document E/ECE/EP/117.

²¹⁵ E/ECE/EP/147.

(b) *Recommendations concerning the protection of international rivers*²¹⁶

344. According to a letter of 12 February 1973 received from the Executive Secretary of ECE

The activity of the Committee on Water Problems is concentrated on problems concerning the rational development of water resources and their protection against aspects of these problems; special studies directly relating to the law of uses of international watercourses have not been undertaken and they are not foreseen in the long-term programme of work of the Committee, covering the period up to 1977. The legal aspects concerning the protection of water resources against different kinds and sources of pollution (which were considered by the Committee, by its subsidiary organs and by a seminar sponsored by the Committee) comprised provisions for the direct protection of water bodies (for example, standards defining the maximum permissible concentration of pollutants in waste waters, classification of watercourses by quality standards, obligation to install treatment plants, etc.), as well as legislation stimulating and providing guidance for better water pollution control. Although these aspects were discussed at the international level, they concerned solutions, experiences and shortcomings in this field on the national scale and no results, in the sense of agreements on the unification of basic legal questions with respect to the protection of international water bodies, can be noted. Several recommendations, which were transmitted to all ECE Governments for implementation, may be considered as a first and essential step towards the creation of better conditions for further and more concrete activities such as the unification of relevant provisions or standards, bilateral and multilateral agreements or conventions in the field of the use and protection of international water bodies.

The following recommendations should be mentioned:

- (i) *Recommendation to ECE Governments concerning the protection of ground and surface waters against pollution by oil and oil products, approved by the Committee on Water Problems in 1970*

345. The text of this recommendation reads as follows:

Preamble

1. With the growth of industrialization and mechanization and the rising demand for oil as a raw material for the chemical industry, the production of crude oil has greatly increased. The trend towards the replacement of solid fuel by liquid fuel as a source of energy and domestic heating, as well as the rapidly increasing needs for oil and

²¹⁶ It should be noted that in 1966 ECE, by resolution 10 (XXI), adopted, on the recommendation of a Meeting of Governmental Experts held in October 1965, a series of Principles which the Meeting had agreed upon as part of an ECE declaration of policy on water pollution control. Paragraphs 1 and 9 of the Principles read as follows:

"1. Water pollution control constitutes a fundamental governmental responsibility and calls for close international collaboration as well as the co-operation of local communities and of all uses of water. Control of water pollution forms an integral part of water resources and water utilization policies. All problems concerning the rational utilization of water resources should be viewed in relation to the special features of each drainage area.

"9. States bordering on the same surface water should reach an understanding to the effect that such water represents for them a common asset, the use of which should be based on the desire to reconcile their respective interests to the greatest possible extent. This involves more particularly concerted action in pollution control, and such States should, by means of bilateral or multilateral agreements, define their mutual relations on water pollution. These agreements should provide that States are to maintain water at a quality such that neither public health nor the basic needs of the economy are jeopardized."

⁹ *Official Records of the Economic and Social Council, Forty-first Session, Supplement No. 3 (E/4177), part III.*

oil products arising from the development of air, rail, road and water transport, have resulted in the storage of ever-increasing quantities of crude oil and oil products in commercial and domestic tanks and their transport over long distances by rail, road and inland water tankers, as well as in pipelines. Consequently there is a growing danger of water and soil pollution by oil on both a national and an international scale, affecting ground as well as surface waters—a danger which is causing grave concern particularly because relatively small quantities of oil may have serious water pollution effects. Attention is drawn, not only to the dangers resulting from oil-drilling, production and refining, and to the problem of industrial effluents, including those from petrochemical plants, but also to the number of spillages due to human errors of judgement, to traffic accidents and to storage tank failures, particularly at consumer level.

2. At the present time, when the need for conserving the quality of water resources has become urgent, concerted action is required in order to ensure:

(a) adequate administrative and legal measures aimed at prevention of accidents at the earliest possible stage of oil production, as well as during transport, storage and consumption; it is particularly important that regulations be established regarding the compulsory reporting of all accidents and failures of storage and transport facilities and that emergency plans be prepared for remedial measures in case of accidents and failures under specified conditions;

(b) the further development of methods and techniques for identifying and assessing oil pollution and for both routine and emergency treatment of waste water, surface waters, ground waters and soil contaminated by oil and oil products;

(c) co-operation between ECE Governments especially as regards joint preventive and remedial action with respect to waters in whose use they have a direct common interest, and which could take the form of multilateral agreements between the countries concerned.

Recommendations

3. On the basis of the above considerations, ECE Governments are recommended:

(a) to designate "protection zones" in areas needing to be preserved from pollution in view of their utilization and where the use, storage and transport of crude oil and oil products are permitted only under special conditions of safety and precaution;

(b) to issue, where this has not yet been done, regulations aiming at the safe storage and transport of oil and oil products, as well as at the disposal of waste oils, of effluents from oil industries and of surplus products resulting from the treatment of such effluents, in such a way that water pollution is avoided in case of human and material failure, and to ensure adequate enforcement of these regulations;

(c) to render compulsory the immediate reporting to the nearest appropriate public authority of all spillages of oil and oil products likely to contaminate either ground or surface waters;

(d) to make arrangements for the periodic inspection by appropriate bodies of oil storage and transport facilities and of pipelines;

(e) to set up systems which in the event of oil accidents would immediately warn water users likely to be affected;

(f) to organize emergency task forces which would be equipped to intervene rapidly and to circumscribe the damage caused in the case of oil accidents (particularly in protection zones);

(g) to establish national study groups comprising water and oil disciplines to help resolve their common technical problems; these national study groups could serve as focal points in an international network of such contacts under the auspices of the ECE for the exchange of experience and the promotion of water supplies for multiple uses;

(h) to take appropriate steps to intensify research into the most effective and economical methods for detecting, determining and preventing pollution as well as for neutralizing the results of water and soil contamination by oil products;

(i) to undertake programmes of education and publicity in order to draw attention to the economic and social effects of water contamination by crude oil and oil products and to the need for intensified water resources protection in this respect;

(j) to encourage co-operation from the public in reporting oil pollution;

(k) to arrange with neighbouring countries for joint or co-ordinated action which should usefully be taken with respect to common boundary waters (ground as well as surface) in case of oil accidents and for the prevention of pollution by oil.²¹⁷

(ii) *Recommendation to ECE Governments concerning river basin management, approved by the Committee on Water Problems in 1971*

346. The recommendation reads as follows:

Preamble

1. Rapid industrial development and intensive urbanization, together with increased standards of living throughout the last decades have resulted in every higher demands for water and an increasing deterioration of the environment in virtually all ECE countries. These growing demands, including more stringent needs for high quality water, in conjunction with the natural fluctuations and the growing pollution of the water resources, have caused water shortages to occur in more and more regions. In certain areas water has thus become a determining factor in the location of water-using industries, and a shortage of it is considered a limiting factor in economic and social development. It is accepted that only careful planning and rational management of the allocation, utilization and conservation of water resources as well as a disciplined use of water for the various legitimate purposes can assure that requirements will be met in the future and that the natural environment will be improved and preserved. However, there is a growing gap between the standard of management of water resources and available modern technology. On the basis of existing experience it appears that the improvement of water resources management may best be attained through the establishment of appropriate regional organs which operate in the framework of natural river basins, sub-basins or groups of smaller basins, as physical and administrative conditions may require in individual countries.¹ At the same time, it seems that a successful solution to all these problems would, in certain cases, demand some strengthening of national policies, programmes of development and research activities.

Recommendations to ECE Member and Participating Governments

2. It is therefore recommended that ECE Member and Participating Governments consider the establishment and/or strengthening or co-ordination of river basin management organs within their countries, taking into account the following needs to the extent that the physical conditions and administrative structures prevailing in each country permit:

(a) to create or strengthen the necessary legal framework and policies at the national level;

(b) to give water authorities at the national level the powers required efficiently to guide and co-ordinate activities carried out at the regional or river basin level;

(c) to establish, at both national and river basin levels, the maximum possible integration and co-ordination of all the interests concerned with water resources management;

(d) to define clearly the relationship between river basin organs and the authority or authorities responsible for national water management and to take note of the need for more extensive action and guidance by central governmental authorities;

(e) to establish close links between the management of water resources and over-all regional planning within the same river basin, with a view to facilitating the gradual integration of water management into the over-all management of the environment;

(f) to define the scope and powers of river basin organs so as to provide for the comprehensive management of all ground and surface water resources, including water quality control and flood protection within the context of environment, as well as the possibility of influencing user behaviour to effect economies in water use;

(g) to ensure that the river authorities have the staff and technical facilities needed for the proper management of water resources;

(h) to set up basin-wide networks for continuous monitoring of water quality and flow, making use, as far as possible, of computers for data processing and analysis;

(i) to require water users to bear all or part of the investment costs involved in any action taken to improve the water resources of the basin and, in addition, all or part of the operating costs of the river basin organ;

(j) to assess users' charges in a way that relates to the effect on the balance of water resources in each case, taking into account the various criteria such as abstractions made and the pollution caused;

(k) to intensify scientific research into problems arising in integrated river basin management, in particular with regard to:

the methods of long-term prognosis of future water flow;

prognosis of water consumption and water supply for various users during periods of low flow according to the degree of reliability required;

possibilities of assessing and forecasting water pollution as well as self-purification processes in river basins;

flow regulation by water storage;

optimization of integrated water systems at the planning, designing and operative stages, using computers and appropriate mathematical methods;

(l) to ensure adequate training, particularly for the personnel of operational agencies, in the use of computers and the application of mathematical modelling techniques;

(m) to co-ordinate the programmes and activities of river basin management organs with those of corresponding organs of neighbouring countries.²¹⁸

¹ In relatively flat countries adjacent to sea coasts this concept is bound to be less significant; in such areas water management can perhaps be more efficiently organized on a regional basis, covering the relevant estuaries or coastal areas, together with the tributary rivers and land drainage.

(iii) *Recommendation to the Governments of Southern European countries concerning selected water problems, approved by the Committee on Water Problems in 1972*

347. The recommendation reads as follows:

I. Preamble

1. In the last two decades the rational development and protection of water resources have assumed very great importance in the ECE region, as a result of rapid industrial and agricultural development and urbanization.

2. Water, which was formerly abundant and cheap, is today regarded in many countries as a limited economic resource needing careful planning and management. The problems to which this situation gives rise are of particular importance for the southern European countries which participated in the Seminar on Selected Water Problems in Southern Europe. These countries have many features in common, including in particular—

(a) Very marked seasonal and interannual fluctuations in precipitation causing considerable variations in stream flow and in some cases floods and long periods of drought;

(b) Intense evapotranspiration, resulting in very heavy water consumption for irrigation, particularly in summer;

(c) A very marked imbalance between natural water resources and the needs of the population and of various sectors of the economy;

(d) Pollution of rivers and coastal waters, which is beginning to affect the environment and economic development.

3. Consequently in all the countries of this region the development of water resources creates numerous problems, viz.:

(a) Stream flow regulation, to safeguard economic development;

(b) Protection of water resources from depletion and ever-growing pollution;

²¹⁷ E/ECE/WATER/7, annex I.

²¹⁸ E/ECE/WATER/9, annex II.

(c) Control measures to prevent and combat erosion, flooding and other harmful events.

4. Of late years the governments of the southern European countries have made a special effort to solve these numerous problems. If various difficulties in the control and use of water are to be avoided, most of the countries must introduce long-term planning for hydro-graphic basins and large economic complexes, promote intensive research and teach the principles of the rational use of water resources.

II. Recommendations to the governments of Southern European countries

5. As a help in coping with these more or less specific problems and ensuring the necessary conditions for healthy economic growth, the following suggestions are recommended for consideration by the governments of the southern European countries:

(a) Formation (or improvement) of an effective and rational water policy closely linked to development plans for the whole country and to regional planning schemes;

(b) Appointment (or reinforcement) of adequate bodies for the whole country and for each river basin, to apply policies of water-quality protection, water resources management, erosion and flood control, etc.;

(c) Adoption of modern techniques and application of the latest techniques, experience and methods to water treatment, pollution control, resources management, etc.;

(d) Strengthening of international co-operation in water management, especially in the protection of quality, above all in countries sharing a river basin.²¹⁹

C. Report of the Panel of Experts on the Legal and Institutional Aspects of International Water Resources Development

348. With a view to assisting member countries in dealing effectively with the problem of international water resources planning, the United Nations Secretariat decided in 1968 to constitute an interdisciplinary Panel of Experts on the Legal and Institutional Aspects of International Water Resources Development. The Panel was composed of economists, engineers, lawyers, public administration specialists and executives with widely varying experiences in various parts of the world.

349. Participants from the interested agencies of the United Nations system of organizations also took part in the discussion. The Panel held two sessions respectively in December 1968 and December 1969. The outcome of its deliberations is contained in a report²²⁰ which, after reviewing the concepts most generally accepted and considerations most often emphasized by the technical experts and policy planners experienced in this field (chap. I), deals successively with the question of the choice and scope of régimes (chap. II), the question of the selection of appropriate organizational structures (chap. III), important legal and managerial considerations (chap. IV), accommodation of differences and dispute settlement (chap. V). The report also contains "Findings" which summarize the Panel's collective and independent judgement (chap. VI, A), and a series of specific proposals (chap. VI, B). A brief summary of some relevant parts of the report follows.

²¹⁹ ST/ECE/WATER/6/Add.1, p. 11.

²²⁰ *Management of international water resources: institutional and legal aspects—Report of the Panel of Experts on the Legal and Administrative Aspects of International Water Resources Development*, Natural Resources/Water Series No. 1 (United Nations publication, Sales No. E.74.II.A.2).

350. The report points out that changes in one part of a hydro-system frequently affect directly the possibilities of water exploitation in other parts of the system and that the presence and behaviour of water endangers or benefits, or both, flora and fauna and all of man's activities within the system. Awareness of this interdependence has led to the employment of the drainage basin concept as the basis for delimiting the scope of the legal régime for water resources management. The report defines the water resources of a drainage basin as comprising both the surface waters within the basin's total watershed and the underground water resources that are physically interconnected into one system of waters; wherever there is interconnexion, surface or underground, and more than one State's territory is involved, the water resources so occurring must be treated as international. According to the report, it would not be satisfactory to apply international law rules only to a portion of the internationally interconnected water resources and therefore expressions such as "international river" or "international river system" are viewed as inadequate. The report further submits that the concept of "international drainage basin" should be amplified in order to encompass atmospheric water and international frozen water resources (glaciers, continental ice-mantles and polar ice) and to take into account interaction between water, other resources, and the environment. It thus arrives at the concept of "international water resources system".

351. The report points out that in the case of an international basin or system, all activities in the territory of one State may be adversely, or beneficially, affecting activities in the territory of one or more co-basin or co-system States and that each basin State should recognize the legitimacy of the interest that its co-basin States have in the use of the waters of their international drainage basin and co-operate to maximize, or optimize the uses and the management of the system on a basin-wide, long-term basis. The report recalls in that connexion that appreciation of the need to effect integrated management of international water resources—that is hydro-systems extending to more than one State—has led to inter-State co-operation in the form of conclusion of agreements (formal or informal, bilateral or multilateral), harmonization of national laws pertaining to waters and adoption of parallel legislation.

352. The report observes that co-operation among riparian States in respect of the development of their shared water resources has in many cases led to a more efficient exploitation than would otherwise have been possible. It points out that the exchange of hydrological and other data, the establishment of an agreed régime of water allocation and regulation, co-ordinated or joint construction and operation of projects such as dams and river training works, and the sharing of costs of such undertakings have been the subject matter of numerous successful arrangements.

353. The major obstacle in institutionalizing action for international water resources development, conservation and use, the report observes, consists of reluctance to accept international collaboration and the long-range consequences of placing into motion processes over which

the individual State does not retain sole unqualified control, especially when the potential benefits cannot be perceived readily and reliably and in cases where there is a marked disparity between the stages of development or sizes and strengths of the countries concerned. A related problem mentioned by the report is that of reconciling national development goals and planning machinery with regional international goals and new untested machinery and adjusting the national priorities and procedures to regional international priorities and procedures as influenced by the interests of neighbouring States. The degree of delegation of authority from the individual Governments to any joint or international institutions created by their initiative will vary and must reflect the will and intentions of the participating countries. The report reviews the various types of possible institutional structures, from the very simple, even irregular consultation arrangements to complex, full-time organizations with autonomous authority and describes their respective advantages and drawbacks

in relation to determined international water resources tasks.

354. Finally, the report points out that, in the field of international water resources as in any other field, differences are bound to arise in the process of implementation of agreed policies and legal régimes and the operation of joint international institutions. Such disputes may oppose two or several system States or two or several organs of any institutional framework established; they may also arise between an international water resources agency and either a system State, an extra-system State, a private party or some international entity. The report reviews the various possible means of settlement from resolution at the technical level (through exchange of data and initial consultations, the establishment of technical commissions of inquiry, recourse to specialized hearing and ruling tribunals, etc.) to the traditional means of settlement of international disputes.

Chapter II

SPECIALIZED AGENCIES AND INTERNATIONAL ATOMIC ENERGY AGENCY

A. Food and Agriculture Organization of the United Nations

355. In a letter of 19 April 1973 the Food and Agriculture Organization noted that "in considering the legal control of water pollution, FAO studies have consistently stressed the interdependence of international and national (comparative) law on the one hand, and of inland water and marine pollution control on the other". The letter stressed that this integrated approach, which had been confirmed by the United Nations Conference on the Human Environment, was reflected in a number of FAO documents. The present section contains, in subsection (a), a brief account of one of those documents entitled "The control of marine pollution and protection of living resources of the sea: a comparative study of international controls and national legislation and administration". It reproduces, in subsection (b), a draft agreement on water utilization and conservation in the Lake Chad Basin, prepared in 1972 by the FAO Legal Office.

(a) *The control of marine pollution and the protection of living resources of the sea: a comparative study of international controls and national legislation and administration*²²¹

356. The object of this study is to examine how uses of the sea that cause pollution, such as the disposal of wastes, the exploration and exploitation of the resources of the sea-bed and navigation, have been reconciled, at both the national and the international level, with the use of the sea as a source of food. In discussing international management, the study examines those international conventions that

regulate activities causing marine pollution, the present state of customary international law on the subject and the activities of international bodies in this field.

357. Regarding the *present state of customary international law*, the study states:

In the absence of generally approved State practice, it is necessary to examine the writings of jurists to cast some light on the state of customary international law concerning marine pollution. Most legal writers deal more with international river pollution than with marine pollution, although the questions may be analogous in some respects, especially where pollution of the coastal waters of a neighbouring State is concerned. Briefly, the theory of absolute territorial sovereignty prevailing at the beginning of the century, which holds that each State has sovereign power to do what it likes in its own territory, regardless of the results outside that territory, is now treated with disfavour. So also is the contrary view that a State may do nothing within its territory which may produce harmful effects, however slight, within the territory of another State. So far as inland water pollution is concerned, most legal writers now adopt a compromise position between these two extremes, which requires that a State should act in such a way as to avoid causing appreciable and unreasonable harm on the territory of a neighbouring State. Most also argue that this obligation extends to harm caused in the territorial waters of another State, or at least a neighbouring State. Where damage to the resources of the sea beyond the limit of national territorial jurisdiction is concerned, even though one State or many may have essential interests in those resources, the State of customary international law is less clear.²²²

(b) *Draft agreement on water utilization and conservation in the Lake Chad Basin, prepared by the FAO Legal Office.*

358. In the course of FAO technical assistance to the Lake Chad Basin Commission, the Legal Office (Legislative Branch) prepared a draft agreement on water utiliz-

²²¹ FIR: MP/70/R-15, presented at the 1970 FAO Technical Conference on Marine Pollution and its Effects on Living Resources and Fishing.

²²² *Ibid.*, p. 6.

ation and conservation in the Lake Chad Basin, "which is currently under review by the four Member Governments (the United Republic of Cameroon, the Republic of Chad, the Republic of Niger and the Federal Republic of Nigeria)". The text of the draft agreement reads as follows:

Preamble

The Federal Republic of Cameroon, the Republic of Chad, the Republic of Niger and the Federal Republic of Nigeria,

Being the Member States of the Convention and Statute Relating to the Development of the Chad Basin, concluded at Fort-Lamy on 22 May 1964 (hereinafter referred to as the Fort-Lamy Convention and Statute);

Recognizing the need to formulate principles of equitable water utilization, with a view to the optimum development and conservation of the water resources of the Lake Chad Basin;

Reaffirming their mutual recognition of the existing national boundaries, as declared at the First Fort-Lamy Conference on 21 December 1962, and as solemnly resolved by the Organization of African Unity on 24 July 1964;

Have agreed as follows:

Article I

The Member States undertake to observe the provisions of the present Agreement on Water Utilization and Conservation in the Lake Chad Basin, including its Technical Annex attached hereto, and to take appropriate measures for the effective implementation of these provisions.

Article II

For the purpose of this Agreement, the Lake Chad Basin (hereinafter referred to as the Basin) shall comprise that part of the territory of the Member States which is situated within the hydrological drainage area of Lake Chad, as delineated by the Lake Chad Basin Commission (hereinafter referred to as the Commission) in Technical Annex No. 1 attached hereto.

Article III

(1) This Agreement shall apply to the abstraction, diversion or other utilization of surface water in the Basin.

(2) This Agreement shall not apply to the utilization of ground water or atmospheric water resources by any Member State, unless in the view of the majority of the Commission such utilization is likely to have a serious harmful effect on water utilization in one or more other Member States.

(3) This Agreement shall not apply to the abstraction or diversion of water below the applicable "minimum rates" as determined by the Commission in Technical Annex No. 2 attached hereto.

Article IV

Each Member State shall, with regard to schemes or projects for water utilization in its territory, take every reasonable measure to ensure the conservation of the water resources of the Basin; to maintain their natural flow and quality; to prevent their misuse, waste or pollution; and to plan and implement such schemes or projects in a manner conducive to the integrated development of the Basin, in conformity with the present Agreement and with the Fort-Lamy Convention and Statute.

Article V

(1) Each Member State shall be entitled, within its territory, to a reasonable and equitable share in the beneficial utilization of the water resources of the Basin.

(2) At the request of any Member State, the Commission may determine what constitutes a reasonable and equitable share, taking into account all relevant hydrological, ecological, economic and social circumstances.

Article VI

(1) An existing reasonable utilization of water resources may continue in operation unless the Commission, after evaluating all relevant circumstances pursuant to the preceding Article, recommends that it be modified or terminated.

(2) The mere reservation of future water utilization by a Member State shall not constitute a basis for objections to present reasonable utilization by one or more other Member States.

Article VII

Each Member State shall in due course inform the Commission of all schemes or projects for water abstraction or diversion in excess of the applicable "minimum rates" as determined in Technical Annex No. 2 attached hereto, in pursuance of Article VI of the Fort-Lamy Statute and of Rule 9 of the Commission's Rules of Procedure.

Article VIII

Within the principles laid down by the present Agreement, Member States shall be free to enter into bilateral or multilateral agreements for the mutual apportionment of water resources, provided that the Commission is kept fully informed of the contents of such agreements, and provided further that the water abstractions or diversions contemplated therein do not exceed the applicable "safe maximum rates" as determined by the Commission in Technical Annex No. 3 attached hereto.

Article IX

(1) No Member State shall carry out or permit to be carried out on its territory, unilaterally or jointly with one or more States, any scheme or project for water abstraction or diversion in excess of the applicable "safe maximum rates" as determined in Technical Annex No. 3 attached hereto, unless the Commission has been consulted reasonably in advance so as to give it an opportunity for a hearing.

(2) The preceding provision shall equally apply to any scheme or project for water abstraction or diversion in excess of the applicable "minimum rates" as determined in Technical Annex No. 2 attached hereto, where such abstraction or diversion would result in utilization of the water outside the Basin.

Article X

(1) The Commission shall be empowered to set seasonal "safety levels", the measurement of which is to be determined in Technical Annex No. 4 attached hereto.

(2) When the water falls below the "safety level" so determined, the Commission may amend or suspend the applicable "safe maximum rates" or "minimum rates", or take other emergency measures as specified in Technical Annex No. 5 attached hereto.

Article XI

(1) In the course of consultations and hearings pursuant to Article IX of the present Agreement, objections may be raised by any Member State on the basis of Articles IV to VI, where in the view of the majority of the Commission the scheme or project in question is likely to have a serious harmful effect on water utilization in other Member States.

(2) Where objections have so been raised, the Member States concerned shall endeavour to reach agreement on the appropriate preventive or compensatory measures to meet such objections.

(3) Where no agreement has been reached within six months after an objection was raised, the question shall, at the request of any Member State, be referred for final settlement to the Commission of Mediation, Conciliation and Arbitration of the Organization of African Unity.

(4) While any of the above-mentioned proceedings are pending, the scheme or project in question may not be carried out.

Article XII

(1) Each Member State shall in due course inform the Commission of water-polluting immissions originating in its territory, which are likely to have a serious harmful effect on water utilization in one or more other Member States.

(2) The Commission shall be empowered to set common water pollution regulations and standards in Technical Annex No. 6 attached hereto, including requirements for Member States to report, restrict or prohibit specific water-polluting immissions.

Article XIII

(1) Where as a result of water abstraction, diversion or other utilization, including water-polluting immissions within the meaning

of the preceding Article, a Member State suffers damage which is subject to compensation under international law, the aggrieved Member State shall notify the Commission of such damage, and the Member States concerned shall endeavour to reach agreement on the appropriate measures for its evaluation, compensation and future prevention.

(2) Where damage occurs as a cumulative effect of water utilization by several Member States, these Member States shall share in the compensatory and preventive measures in proportion to their respective amounts of utilization which caused the damage.

(3) Where no agreement has been reached within six months after the Commission was notified of the damage Articles XI (3) and (4) of the present Agreement shall apply accordingly.

Article XIV

(1) The Commission shall be empowered to verify compliance with the provisions of this Agreement.

(2) At the request of the Commission, Member States shall, for the purpose of this Agreement and as specified in Technical Annexes No. 7 to 9 attached hereto:

(a) collect and supply the information required;

(b) install or permit to be installed on their territory the required measuring equipment, and protect such equipment from interference;

(c) permit the required inspections to be carried out on their territory, and facilitate the performance of such inspections.

(3) The Commission shall in due course communicate to Member States any information, measuring results and inspection reports obtained under the provisions of this Article.

Article XV

(1) For the purpose of this Agreement, the Commission shall set up an Expert Committee on Water Utilization and Conservation (hereinafter referred to as the Expert Committee), which shall be composed of experts of each Member State.

(2) Prior to taking action on matters within the scope of this Agreement, the Commission shall hear the Expert Committee.

(3) The Expert Committee may, upon request by the Commission or upon its own initiative, formulate recommendations to the Commission.

(4) Recommendations by the Expert Committee shall require a majority of votes, each Member State having one vote.

(5) The Expert Committee may set up Sub-Committees to deal with specific watercourses shared by two or more Member States, which shall be composed of experts from each riparian State of such water courses.

...

Article XX

(1) Any dispute concerning the interpretation or implementation of this Agreement, which cannot be settled by negotiations between the Member States concerned within six months after the negotiations began, shall at the request of any Member State be submitted to the Commission.

(2) Any such dispute, which cannot be settled by the Commission within six months after its submission, shall at the request of any Member State be referred for final settlement to the Commission of Mediation, Conciliation and Arbitration of the Organization of African Unity.²²³

...

B. World Health Organization

359. In a letter of 9 February 1973 received from WHO, it was stated that while the question of pollution in international water bodies was of great importance to this

²²³ FAO/UNDP, *Survey of the water resources of the Chad Basin for development purposes—Surface water resources in the Lake Chad Basin*, Technical Report 1 (AGL:DP/RAF/66/579), appendix I, pp. 125 *et seq.*

Organization, it had not so far carried out any specific study on the subject. Mention was made of a comparative survey of health legislation on the control of water pollution, published in the *International Digest of Health Legislation*.²²⁴ This survey was based on such source material as was available, for each of the countries concerned, at the Headquarters of WHO up to the end of September 1966. It was not intended to provide an exhaustive coverage of world legislation in the field in question, but to give typical examples of the form that such legislation had taken. Thus, the pertinent legislation in the following countries was reviewed separately: Belgium, Czechoslovakia, Denmark, Finland, France, Germany (Federal Republic of), Netherlands, New Zealand, Sweden, Switzerland, Union of Soviet Socialist Republics, United Kingdom and United States of America.²²⁵

C. World Meteorological Organization

360. In a letter of 10 January 1973, WMO indicated that it

has recently launched two investigations which have a particular bearing on the problem of the pollution of international watercourses. These investigations consist of a study initiated by the WMO Commission for Hydrology on the effects of saline intrusions into the lower reaches of rivers as a result of the erection of dams and other watercourse management structures and a second study, also under the direction of the Commission for Hydrology in collaboration with WMO Regional Association VI (Europe) on the thermal pollution of waters due to effluents from energy producing installations. It is believed that both of these studies will, when completed, serve to highlight particular aspects which could have legal implications. Since these studies have only been begun very recently they are not sufficiently advanced to be of use in the preparation of the "supplementary report" at the present time.

D. International Atomic Energy Agency

REPORT ON DISPOSAL OF RADIOACTIVE WASTES INTO RIVERS, LAKES AND ESTUARIES, PREPARED BY A PANEL OF EXPERTS IN 1969

361. In a letter dated 19 November 1973, the Agency indicated that, being aware of the threat of possible pollution of fresh waters by radioactive material, it had convened in 1969, in conjunction with WHO, an *ad hoc* panel of experts which dealt with problems of preventing pollution in fresh water systems. The report of this panel was subsequently published.²²⁶ The purpose of this report was to present, in the light of the information and experience accumulated to date, those principles and practices which, if applied to the disposal of radioactive wastes into inland surface and estuarial waters would ensure that man would not experience radiation exposures that were above the limits recommended by the International Commission on

²²⁴ "Control of water pollution: a survey of existing legislation", *International Digest of Health Legislation*, vol. 17, No. 4 (1966), pp. 630-834.

²²⁵ *Ibid.*, pp. 646-822.

²²⁶ *Disposal of Radioactive Wastes into Rivers, Lakes and Estuaries: Report of a Panel of Experts sponsored by the International Atomic Energy Agency and the World Health Organization*, Safety Series No. 36 (International Atomic Energy Agency, Vienna, 1971).

Radiation Protection, and that radiation exposures were kept as far below those limits as was practicable.

362. In section I, entitled "Water supplies and wastes", the report points out that rivers are now regarded not simply as potential sources of fresh water supplies. They must accept effluents from industry and sewage treatment works, for later re-use downstream. Consequently, some rivers supply water that is used over and over again, with each use changing the water quality to a greater or less extent but generally to the disadvantage of subsequent users. The report quotes the following definition of a polluted river:

A river is considered polluted when the water in it is altered in composition or condition directly or indirectly as a result of the activities of man so that it is less suitable for any or all of the purposes for which it would be suitable in its natural state.²²⁷

"Prevention of pollution", the report further states, is equated with "maintenance of quality". The efficient use of water resources therefore demands not only attention to the conservation of their quantity but also to the prevention of their pollution. In the same section, the report deals with the *contamination of waters by wastes*; it indicates that in dealing with radioactive wastes, the aim is to ensure that the amount of radioactive material released into the environment can be absorbed with safety, without risk of damage to man or to the environment.

363. In section V, entitled "Radioactive waste management policy", the report refers to organizational principles

²²⁷ *Ibid.*, p. 1, foot-note 1.

at the national level. It points out that in almost every country Governments have recognized the need to exert regulatory control over matters relating to nuclear energy, including the disposal of radioactive wastes. The precise method of effecting this control has varied widely, but by examining the various arrangements it is possible to identify certain important principles and procedures which have particular reference to radioactive waste management.

Of fundamental importance is the designation by the appropriate organ of government of an authority competent to regulate matters relating to nuclear energy. . . . The powers invested in the competent authority will permit it to make regulations concerning the possession, use and disposal of radioactive materials; and to specify quantities of radioactive materials which are exempt from the regulations. They should also permit the authority to issue licences for specific operations and to attach appropriate conditions to those licences.

The same section of the report further envisages the question of an international collaboration in this field. In that connexion, the report suggests that one mode by which such collaboration might be achieved

could be the establishment of an international convention which, by specification of water quality criteria, would control the quantities of radioactive materials passing from one country to another. . . . A more useful arrangement, better able to deal with changing circumstances, would be to make use of already existing organizations, established perhaps for other purposes; or to establish by international agreement an organization specifically for the purpose. In both cases means would have to be found of investing the organizations with powers of the type specified for national competent authorities.²²⁸

²²⁸ *Ibid.*, pp. 34-38.

Chapter III

OTHER INTERGOVERNMENTAL ORGANIZATIONS

A. Regional organizations

1. ASIAN-AFRICAN LEGAL CONSULTATIVE COMMITTEE

Draft propositions on the law of international rivers, formulated in 1973 by a Sub-Committee

364. The Asian-African Legal Consultative Committee began preliminary discussion on the subject of the law of international rivers at its ninth session held in New Delhi in December 1967. At that session, the delegate of Iraq suggested two items for the consideration of the Committee: (a) definition of the term "international rivers" and (b) formulation of suitable rules relating to utilization of waters of international rivers by the States concerned for agricultural, industrial and other purposes apart from navigation. At the same session, the delegate of Pakistan suggested that the Committee should consider the uses of waters of international rivers, more particularly the rights of lower riparians. He also posed a fundamental question, namely how far the rules developed and practised by the European nations were applicable to the situations arising in the Asian-African region. At the tenth session held in Karachi in January 1969, the Committee decided to appoint 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", for consideration at the Committee's eleventh session.²²⁹

365. The Sub-Committee, which met at New Delhi in December 1969, had before it a set of draft articles on the law of international rivers proposed by Pakistan, and a set of draft principles presented by Iraq.²³⁰ The Sub-Committee was unable to conclude its discussion and referred the matter back to the Committee for consideration at its eleventh session.

366. At the eleventh session of the Committee, held at Accra in January 1970, the delegations of Pakistan and Iraq jointly proposed a new set of "draft articles on the law of international rivers", combining the elements of the drafts they had submitted to the Sub-Committee.²³¹

²²⁹ Asian-African Legal Consultative Committee, *Report of the Tenth Session held in Karachi (21-30 January 1969)* (New Delhi), pp. 31-39. See also *Yearbook . . . 1969*, vol. II, p. 195, document A/CN.4/212, annex IV, resolution XI(6).

²³⁰ *Idem.*, *Report of the Eleventh Session held in Accra (19-29 January 1970)* (New Delhi), pp. 192-207.

²³¹ *Ibid.*, pp. 241-243.

The delegation of India introduced a proposal to the effect that the first eight articles of the "Helsinki Rules", adopted by the International Law Association in 1966, should be used as the basis of the Committee's study of this subject. The Committee did not decide which proposal should be taken as the basis of discussion. It decided, however, to circulate both proposals to the Governments of participating countries and to invite their comments.

367. At the twelfth session, held at Colombo in January 1971, the Committee appointed a new Sub-Committee, which requested its Rapporteur to study the subject with a view to preparing a set of draft articles amalgamating, as far as possible, the propositions contained in the joint draft articles submitted by Pakistan and Iraq and in the Helsinki Rules. The Rapporteur submitted a set of "draft propositions on the law of international rivers", which was considered by the Sub-Committee at two sessions held in 1971.^{232, 233} The Sub-Committee was unable to reach complete agreement on the draft propositions and therefore recommended further discussion at the Committee's thirteenth session, which was held at Lagos in January 1972. At that session, the Committee established a Standing Sub-Committee with a view to giving further consideration to the draft propositions in question.²³⁴ At the fourteenth session of the Committee, held in New Delhi, the Sub-Committee considered a set of revised draft propositions submitted by the Rapporteur. It recommended to the plenary to consider the Sub-Committee's report at an opportune time in a future session.²³⁵ The revised draft propositions read as follows:

Proposition I

The general rules set forth in these propositions are applicable to the use of waters of an international drainage basin except as may be provided otherwise by convention, agreement or binding custom among the basin states.

Proposition II

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

2. A "basin State" is a State the territory of which includes a portion of an international drainage basin.

Proposition III

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

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

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

(a) the economic and social needs of each basin State, and the comparative costs of alternative means of satisfying such needs;

²³² See Asian-African Legal Consultative Committee, *Report of the Twelfth Session held in Colombo (18-27 January 1971)* (New Delhi), pp. 23-60.

²³³ See *Yearbook . . . 1972*, vol. II, p. 217, document A/CN.4/262, paras. 16-18.

²³⁴ Asian-African Legal Consultative Committee, *Report of the Thirteenth Session held in Lagos (19-25 January 1972)* (New Delhi), pp. 74-78.

²³⁵ The question of the law of international rivers was not included on the agenda of the fifteenth session of the Asian-African Legal Consultative Committee, held in 1974.

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

(c) the past and existing utilization of the waters;

(d) the population dependent on the waters of the basin in each basin State;

(e) the availability of other water resources;

(f) the avoidance of unnecessary waste in the utilization of waters of the basin;

(g) the practicability of compensation to one or more of the co-basin States as a means of adjusting conflicts among uses;

(h) the geography of the basin;

(i) the hydrology of the basin;

(j) the climate affecting the basin.

Proposition IV

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.

2. A basin State may not therefore 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 V

In determining preferences among competing uses by different co-basin States of the waters of an international drainage basin, special weight should be given to uses which are the basis of life, such as the consumptive uses.

Proposition VI

A basin State may not be denied the present reasonable use of the waters of an international drainage basin to reserve for a co-basin State a future use of such waters.

Proposition VII

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

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

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

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

Proposition VIII

1. Consistent with the principle of equitable utilization of the waters of an international drainage basin a State must prevent any new form of water pollution or any increase in the degree of existing water pollution in an international drainage basin which would cause substantial damage in the territory of a co-basin State, regardless, of whether or not such pollution originates within the territory of the State.

2. Water pollution, as used in this proposition, refers to any detrimental change resulting from human conduct in the natural composition, content or quality of the waters of an international drainage basin.

Proposition IX

Any act or omission on the part of a basin State in violation of the foregoing rules may give rise to state responsibility under international law. The State responsible shall be required to cease the wrongful conduct and compensate the injured co-basin State for the injury that has been caused to it, unless such injury is confined to a minor inconvenience compatible with good neighbourly relations.

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.²³⁶

2. COUNCIL OF EUROPE

(a) *Report on fresh water pollution control in Europe, submitted to the Consultative Assembly in 1965*

368. In January 1963, the Consultative Assembly of the Council of Europe instructed its Cultural and Scientific Committee to investigate the question of fresh water pollution in Europe. A joint Working Party on Fresh Water Pollution Control was set up, composed of the Rapporteur of the Commission on Agriculture, the Rapporteur of the Social Committee and the Rapporteur of the Cultural and Scientific Committee. A comprehensive report on this question was prepared²³⁷ and submitted to the Consultative Assembly on 1 October 1965.

369. This report, which explores possibilities for effective co-operation between member countries of the Council of Europe, is divided into three parts: part I presents the problem and, in an attempt to bring out the full extent of its gravity and complexity, covers its scientific, technical and economic aspects in the context of an industrial society. Part II describes national and international action to control water pollution, with special reference to the legal and administrative aspects. The activities of international organizations concerned with the problem are also discussed, as well as those of international pollution control commissions set up on a bilateral or multilateral basis. Part III contains what may be called the "doctrine" of fresh water pollution. In conclusion, the report proposes that the Council of Europe should take action on three fronts: propagation of ideas; improvement of the laws and administrative regulations necessary for waging a successful campaign against pollution; and science and technology, with special reference to work carried out within the framework of international organizations.

370. In its section devoted to the control of water pollution at international level, the report deals with the legal basis of such control. It raises the question whether there are any rules in international law which could be applied by analogy to international water pollution control. To reply to this question, the report deems it necessary to determine the starting points from which such rules might be drawn up. It indicates that the sources of international law which can be drawn on for this purpose are the following: conventions dealing with the utilization of watercourses common to two or more States; international customary

laws; the general principles of international law; doctrine and jurisprudence in this field; recommendations adopted by the international organizations. Among those sources the report examines international doctrine, jurisprudence, legal associations and international conventions; the relevant paragraphs are reproduced below:

International doctrine

Most specialists who have studied the problem of the responsibility of a State in regard to the damage caused outside its territory conclude that international law does not allow any State to use its water in such a way as to cause substantial damage to a neighbouring country. Amongst the theories and principles most frequently quoted in support of this conclusion are the Roman Law maxim *sic utere tuo ut alienum non laedas* (a principle which has been widely recognised in the parallel field of radio broadcasting where jamming of certain types of broadcasts might be considered as a form of international "pollution"); the theory of the abuse of rights; and principle of neighbourhood. Recently two other theories have been put forward: the "principle of coherence" according to which a drainage basin constitutes an indivisible unit from both the physical and the legal points of view, and the principle of peaceful co-existence.

Contrary to the above conclusions, according to the Harmon doctrine, which was propounded in 1895 in the United States and is still defended today by a number of American lawyers, a State has an absolute right over its own water so that, unless there is any Convention to the contrary, it is under no obligation to prevent the pollution of water which enters the territory of a neighbouring State.

This view seems indefensible, particularly at a time when all industrialised States are drawing up laws designed to combat pollution within their own territories.

Jurisprudence

No case in this field has yet been the subject of a judicial decision. Two judgements in parallel matters, however, contain points which confirm the opinion that in international water pollution the injured States may take action against the State on whose territory the pollution originates.

In the Trail Smelter Arbitral Decision (1941)²³⁸ concerning air pollution caused within the territory of the United States by a foundry on Canadian territory, the tribunal concluded that:

"Under the principle of international law as well as the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the property or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence" (33, *American Journal of International Law* 182 (1941)).

In the Lake Lanoux case,²³⁹ concerning a dispute between France and Spain over the utilisation of the water from the lake, the tribunal to which the case was submitted pointed out (1957) that Spain's claims would have been upheld if the water returned to the lake by France after use had been of such a chemical composition, temperature or other quality as to damage Spanish interests.

Legal Associations

At international level several organisations and associations deal with the problem of international water pollution. Two institutions in particular have considered the legal aspects of this problem. The first of these is the Institute of International Law, which as far back as 1911 adopted a resolution containing the rule that "any contamination of water, by means of the discharge therein of injurious matter, is forbidden". The second is the International Law Association, which since 1956 has been working to draw up—*de lege ferenda*—a code dealing with the responsibility of States for damage caused by international water pollution, and with enforcement measures which can be implemented to prevent it. One finds, on examining the reports and docu-

²³⁶ For the text of the draft propositions and the Rapporteur's commentary, see Asian-African Legal Consultative Committee, *Report of the Fourteenth Session held at New Delhi (10-18 January 1973)* (New Delhi), pp. 7-14.

²³⁷ Consultative Assembly of the Council of Europe, report on fresh water pollution control in Europe (Doc. 1965).

²³⁸ United Nations, *Reports of International Arbitral Awards*, vol. III (United Nations publication, Sales No. 1949.V.2), p. 1905.

²³⁹ *Ibid.*, vol. XII (United Nations publication, Sales No. 63.V.3), p. 281.

ments of these two institutions, that none of their members defends the principle of absolute territorial sovereignty whereby a State would be presumed to have an absolute right over the water which flows from its territory into that of another State.

At its Dubrovnik Conference in 1956 the International Law Association adopted a declaration of agreed principles of international law on the utilisation of international rivers.²⁴⁰ Point VII reads:

“Preventable pollution of water in one State, which does substantial injury to another State, renders the former State responsible for the damage done” (The International Law Association; Report of the 47th Conference, Dubrovnik 1956).

Meeting in 1958 at New York the International Law Association recommended that

“Co-riparians should take immediate action to prevent further pollution and should study and put into effect all practical means of reducing to a less harmful degree present uses which lead to pollution”,

thus recognizing the principle that a riparian is under a duty not to increase the level of pollution of a system of

“international waters to the detriment of a co-riparian” (The International Law Association; Report of the 48th Conference, New York 1958).²⁴¹

International Conventions

The last sources of international law in this field which remain to be considered are the international conventions concluded on the use of international watercourses, and more particularly, those containing provisions concerning pollution.

It has become apparent from research recently carried out that since 1860, i.e. since industrialization began, about forty conventions have been concluded in Europe with the direct or indirect aim of protecting international watercourses from pollution.

Amongst these conventions the first ten or so to be concluded dealt almost exclusively with measures to combat pollution in order to protect fishing interests. Next came a series of conventions, most of them dating from the 1920s onwards, concerning the use of international watercourses for various purposes; the pollution menace had already apparently become sufficiently serious for clauses on water pollution to be included in conventions. Finally, some bilateral and multilateral conventions, all of them concluded after the Second World War, set up international commissions to prevent water pollution. The comparative study of legislation existing at national and international level on water pollution—a task which has in fact been entrusted to the Secretariats of the United Nations Economic Commission for Europe and FAO—might bring to light certain factors common to these conventions. These, in turn, might provide a basis for establishing rules on the pollution of international watercourses.

In view of the foregoing it would clearly be dangerous to assert that there are in international law any precise and concrete rules as to the rights and obligations of States in regard to international water pollution. The most one can do is to note the existence of the principle that a State must not allow international water passing through its territory to be used without proper regard for the legitimate interests of neighbouring States.²⁴²

371. In part III, entitled “Components of a programme of action for pollution control”, the report stresses the necessity for a water policy, which would consist of making surveys and compiling records of water resources and rationalizing their allocation and distribution. It discusses principles closely linked with the water pollution problem and submits in particular that “water is *res communis*”. In that connexion, the report affirms that

it is becoming increasingly difficult to accept the proposition that anyone is entitled to appropriate water for any purpose he thinks fit. Legally speaking, water is *res communis*. The law has so far been based

on the assumption that supplies of water were inexhaustible. Consequently, legislation is usually fragmentary, unless it has been passed very recently, but in that case there has not been time to appreciate its effects. It must now be realized that the increasing scarcity of fresh water makes a new code a matter of urgency, bearing in mind that water is essential to life. The use made of it, and the methods by which it is treated, should henceforth be in conformity with the public interest, and this can be judged only by society.²⁴³

(b) Recommendation 436 (1965) on Fresh Water Pollution Control in Europe

372. On the basis of the report mentioned above, the Assembly adopted Recommendation 436 (1965) inviting member Governments of the Council of Europe to take joint action to control fresh water pollution. The recommendation contains “Guiding principles applicable to fresh water pollution control”, which are also intended to “apply, *mutatis mutandis*, to deltaic and coastal water so long as special principles governing such water have not been formulated”. It also contains, as an appendix, an “Outline of a Water Charter”. The text of this recommendation contains the following provisions:

The Assembly

I

Adopts the following “Guiding principles on fresh water pollution control”:

GUIDING PRINCIPLES APPLICABLE TO FRESH WATER POLLUTION CONTROL

Preamble

1. (a) Control of water pollution forms an integral part of water resource and water utilization policies;

(b) All problems concerning the rational utilization of water resources should be viewed in relation to the special features of each drainage area;

(c) Water pollution control constitutes a fundamental governmental responsibility and requires systematic international collaboration;

(d) It also requires the co-operation of the local communities and of all users of water.

2. The purpose of water pollution control is to preserve, to the maximum extent possible, the natural qualities of surface and underground waters in order to safeguard public health and to permit their use, in particular, for:

the production at a reasonable cost of drinking water of good quality;

the conservation of aquatic and other fauna and flora;

the production of water for industrial purposes, after such economically justified treatment as may be necessary;

irrigation and animal consumption;

recreational purposes, with due regard for health and aesthetic requirements.

3. Control of water being a governmental responsibility, Governments should adopt a long-term policy directed towards reduction of existing water pollution and its prevention in the future. To this end, all appropriate legal and administrative measures should be taken to implement, in particular, the principles laid down hereafter.

4. International co-operation in the field of water pollution control, in particular with regard to research, training of experts and exchange of information, should be strengthened with the help of the various international organizations concerned.

Part I. National aspects

5. Water pollution control requires the establishment of administrative agencies which might take the form of:

²⁴³ *Ibid.*, part III, chap. 1.

²⁴⁰ See p. 203 above, document A/5409, para. 1080.

²⁴¹ See p. 204 above, *ibid.*, para. 1082.

²⁴² Consultative Assembly of the Council of Europe, *op. cit.*, part II, chap. 2, pollution control in Europe (Doc. 1965).

(a) a central body responsible to the Minister in charge or to the Head of Government, and vested with such administrative powers as are necessary to enforce the application of water pollution control legislation;

(b) in each draining area a body responsible for enforcing the application of regulations and for the adoption of water pollution control measures;

(c) joint advisory committees consisting of representatives of the public authorities, representatives of users, and independent experts to assist and advise the above-mentioned bodies;

6. Any discharge or deposit of waste directly or indirectly endangering human life should be forbidden.

7. Both for surface and for ground waters regulations should be established prohibiting the discharge or deposit, without prior administrative authorization, of any substance of a kind which pollutes such waters.

8. Applications for authorization to discharge such substances should be considered in the light of the following factors:

(a) the capacity of the receiving water to assimilate the materials to be discharged, taking into account the physical, chemical, biological, microbiological and radioactive characteristics of these materials;

(b) the evaluation of the economic, social and cultural advantages and disadvantages of possible methods of treatment and evacuation.

9. It is essential that legislation on water pollution control should be strictly applied and that, in case of violation, sufficiently severe administrative or penal sanctions should be imposed.

10. The construction of plants for treatment of refuse and of installations for the purification of municipal sewage and industrial effluents should be encouraged by the most appropriate means, such as non-discriminatory subsidies, low interest loans, tax advantages, government guaranteed loan issues, etc.

Part II. International aspects

11. States whose territories are separated or crossed by the same water course should reach agreement on the following points:

(a) whether up-stream countries are required to maintain surface waters which flow into down-stream countries at a quality equal to that maintained in waters which remain within their territory; and whether down-stream countries shall have the right to require that these waters be of such quality;

(b) whether down-stream countries benefiting from exceptional efforts of purification made by up-stream countries are liable on that account to make financial compensations therefor;

(c) whether any riparian country is responsible for substantial injuries which water pollution in its territory might cause to a co-riparian country and whether it is liable to indemnify the country suffering such injuries.

12. A special body for water pollution control should be set up for each international drainage area. In defining the tasks of such a body and in determining its administrative structure, account should be taken of the principles formulated in the report of the Assembly (Doc. 1965).

II

Recommends the Committee of Ministers to urge Member Governments, in pursuance of Article 15 (b) of the Statute, to take joint action to control fresh water pollution and to this end:

1. to adopt as a basis for their policy in this field the above "Guiding principles on fresh water pollution control";

2. to provide for the training of qualified staff;

...

3. to promote scientific and technical research;

...

4. to promote the centralising and distribution of documentation;

...

5. to take steps to strengthen and continue the international co-operation in water pollution control begun by existing international organisations;

6. to ensure that delegations to the Group of Experts set up by the United Nations Economic Commission for Europe "to study the

possibility of drafting a declaration of principles on water pollution control, setting forth the fundamental concepts which should be observed when planning and carrying out legislative and administrative water pollution control measures which would be submitted to Governments of Member countries of ECE"²⁴⁴ are acquainted with this Recommendation and in particular with the "Guiding Principles" enunciated therein so that they may be guided by them in their future work.

III

Recommends that the Committee of Ministers give instructions to the:

1. *Committee of Experts for the Conservation of Nature and Landscape:*

(a) to intensify its programme of research into the ecological problems of pollution and to take action to protect the more seriously threatened biotopes;

(b) to draft a final text of a "Water Charter" based on the Report of the Assembly (see the outline of a "Water Charter" in the Appendix);

(c) to prepare publicity materials, including audiovisual materials, and see that they are distributed;

(d) to formulate and propose action to remedy instances of pollution damaging to wild flora and fauna and endangering natural preserves, national parks, humid zones, etc.;

(e) to propose that certain regions threatened by pollution should be set aside as preserves;

(f) to draw up a curriculum for study of the conservation of man's natural environment in co-operation with the Council for Cultural Co-operation;

2. *The Council for Cultural Co-operation:*

to seek, in collaboration with the Committee of Experts for the Conservation of Nature and Landscape, means to incorporate the study of the conservation of natural environment into all school curricula;

...²⁴⁵

(c) *European Water Charter, 1967*

373. Pursuant to the above-mentioned recommendation, the Committee of Ministers of the Council of Europe instructed the European Committee for the Conservation of Nature and Natural Resources to prepare a draft "Water Charter". The text of the Water Charter, which was adopted by the Consultative Assembly on 28 April 1967 (Recommendation 493 (1967)) and by the Committee of Ministers on 26 May 1967 (Resolution (67) 10),²⁴⁶ reads as follows:

Preamble

The Committee of Ministers,

Having regard to Recommendation 436 (1965) of the Consultative Assembly on Fresh Water Pollution Control in Europe;

Bearing in mind resolution 10 (XXI) (1965) of the United Nations Economic Commission for Europe containing the ECE declaration of policy on water pollution control in Europe; and also the international standards for drinking water, particularly the European standards, established by the World Health Organization;

Persuaded that the advance of modern civilization leads in certain cases to an increasing deterioration in our natural heritage;

Conscious that water holds a place of prime importance in that natural heritage;

Considering that the demand for water is increasing, largely because of the rapid development of industrialization in the main urban centres

²⁴⁴ See above, foot-note 217.

²⁴⁵ Consultative Assembly of the Council of Europe, *op. cit.*, part III, recommendation 436.

²⁴⁶ The European Water Charter was proclaimed in Strasbourg on 6 May 1968.

of Europe, and that steps must be taken for the qualitative and quantitative conservation of water resources;

Considering, furthermore, that collective action on a European scale on water problems is necessary and that a Water Charter constitutes an effective instrument for creating a better understanding of these problems;

Adopts and proclaims the principles of this Charter, prepared by the European Committee for the Conservation of Nature and Natural Resources of the Council of Europe, which reads as follows:

I. There is no life without water. It is a treasure indispensable to all human activity

Water falls from the atmosphere to the earth mainly in the form of rain and snow. Streams, rivers, glaciers and lakes are the principal channels of drainage towards the oceans. During its cycle, water is retained by the soil, vegetation and animals. It returns to the atmosphere principally by means of evaporation and plant transpiration. Water is the first need of man, animals and plants.

Water constitutes nearly two-thirds of man's weight and about nine-tenths of that of plants.

Man depends on it for drinking, food supplies and washing, as a source of energy, as an essential material for production, as a medium for transport, and as an outlet for recreation which modern life increasingly demands.

II. Fresh water resources are not inexhaustible. It is essential to conserve, control, and wherever possible, to increase them

The population explosion and the rapidly expanding needs of modern industry and agriculture are making increasing demands on water resources. It will be impossible to meet these demands and to achieve rising standards of living, unless each one of us regards water as a precious commodity to be preserved and used wisely.

III. To pollute water is to harm man and other living creatures which are dependent on water

Water in nature is a medium containing beneficial organisms which help to keep it clean. If we pollute the water, we risk destroying those organisms, disrupting this self-purification process, and perhaps modifying the living medium unfavourably and irrevocably.

Surface and underground waters should be preserved from pollution.

Any important reduction of quantity and deterioration of quality of water, whether running or still, may do harm to man and other living creatures.

IV. The quality of water must be maintained at levels suitable for the use to be made of it and, in particular, must meet appropriate public health standards

These quality levels may vary according to the different uses of water, namely food supplies, domestic, agricultural and industrial needs, fisheries and recreation. Nevertheless, since all life on earth in its infinite variety depends upon the manifold qualities of water, arrangements should be made to ensure as far as possible that water retains its natural properties.

V. When used water is returned to a common source it must not impair the further uses, both public and private, to which the common source will be put

Pollution is a change, generally man-made, in the quality of water which makes it unusable or dangerous for human consumption, industry, agriculture, fishing, recreation, domestic animals and wild-life.

The discharge of residue (wastage) or of used water which causes physical, chemical, organic, thermal or radioactive pollution, must not endanger public health and must take into account the capacity of the receiving waters to assimilate (by dilution or self-purification) any waste matter discharged. The social and economic aspects of water-treatment methods are of great importance in this connexion.

VI. The maintenance of an adequate vegetation cover, preferably forest land, is imperative for the conservation of water resources

It is necessary to conserve vegetation cover, preferably forests, and wherever it has disappeared to reconstitute it as quickly as possible.

The conservation of forests is a factor of major importance for the

stabilization of drainage basins and their water régime. As well as their economic value, forests provide opportunities for recreation.

VII. Water resources must be assessed

Fresh water that can be put to good use represents less than one per cent of the water on our planet and it is distributed in very unequal fashion.

It is essential to know surface and underground water resources, bearing in mind the water cycle, the quality of water and its utilization.

Assessment, in this context, involves the survey, recording and appraisal of water resources.

VIII. The wise husbandry of water resources must be planned by the appropriate authorities

Water is a precious resource requiring planning which combines short- and long-term needs.

A viable water policy is needed, which should include various measures for the conservation, flow-control and distribution of water resources. Furthermore, maintenance of quality and quantity calls for development and improvement of utilization, recycling and purification techniques.

IX. Conservation of water calls for intensified scientific research, training of specialists and public information services

Research with regard to water in general and waste water in particular should be encouraged in every way possible. Means of providing information should be increased and international exchanges facilitated; at the same time, the technical and biological training of qualified personnel is necessary in the various fields of activity involved.

X. Water is a common heritage, the value of which must be recognized by all. Everyone has the duty to use water carefully and economically

Each human being is a consumer and user of water and is therefore responsible to other users. To use water thoughtlessly is to misuse our natural heritage.

XI. The management of water resources should be based on their natural basins rather than on political and administrative boundaries

Surface waters flow away down the steepest slopes, converging to form watercourses. A river and its tributaries are like a many-branched tree, and they serve an area known as a watershed or drainage basin.

Within a drainage basin, all uses of surface and underground waters are interdependent and should be managed bearing in mind their interrelationship.

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

International problems arising from the use of water should be settled by mutual agreement between the States concerned, to conserve the quality and quantity of water.

(d) Draft European convention on the protection of fresh water against pollution—Recommendation 555 (1969) of the Consultative Assembly

374. Since the adoption of recommendation 436 (1965), organs of the Consultative Assembly have continued their work in the field of fresh water pollution control. The Joint Working Party composed of Rapporteurs of different committees, which later became an *ad hoc* Sub-Committee on Fresh Water Pollution Control of the Committee on Regional Planning and Local Authorities, started its work in 1966 with a view to preparing a draft European convention on the protection of fresh water against pollution. On the recommendation of the Committee on Regional Planning and Local Authorities,²⁴⁷ the Consultative

²⁴⁷ Council of Europe, Consultative Assembly, Committee on Regional Planning and Local Authorities, Report on a Draft European Convention on the Protection of Fresh Water against Pollution (Doc. 2561).

Assembly, on 12 May 1969, adopted Recommendation 555 (1969), by which it recommended "that the Committee of Ministers instruct a committee of governmental experts to prepare as rapidly as possible a European convention based on the following draft":²⁴⁸

DRAFT EUROPEAN CONVENTION ON THE PROTECTION OF FRESH WATER AGAINST POLLUTION

PREAMBLE

The member states of the Council of Europe, signatory hereto;

Considering that a sufficient supply of water of good quality is of growing economic importance;

Considering that the available water resources of Europe are limited and are subjected to increasing uses and demands, because of the increase in population and industrial development and the growing volume and diversity of pollutants;

Considering that water pollution constitutes a growing danger to the health and well-being of man, his environment, his economic and social activities and to the manifold uses of water;

Considering that many European countries have introduced measures to combat water pollution within their territories and that many treaties have been concluded between such countries relating to water pollution control;

Considering that these measures have not proved sufficiently effective in combating water pollution throughout Europe;

Considering that the cost of measures introduced to combat water pollution should be distributed as fairly as possible in order not to disturb the relative competitive positions of European industries;

Considering Recommendation 555 of the Consultative Assembly;

Considering the principles with regard to water pollution control adopted by the member governments of the United Nations Economic Commission for Europe by Resolution 10 (XXI) relating to the ECE Declaration of Policy on Water Pollution Control;²⁴⁹

Considering that it is a general principle of international law that no country is entitled to exploit its natural resources in a way that may cause substantial damage in a neighbouring country;

Convinced that the problem of water pollution can be solved only with the close co-operation and co-ordination among states;

Desirous of implementing the principle of the equitable utilization of the waters of international drainage basins;

Convinced of the need to secure similar legal provisions in the various European countries relating to liability for damage resulting from water pollution;

Considering also that it is a fundamental principle of law that any person who enjoys the use of property in common with other persons must not interfere with such enjoyment by other persons and is liable to pay compensation for any damage so caused;

Conscious of the difficult, if not impossible, position of a person who now suffers damage arising from the pollution of the waters of an international drainage basin, in establishing whether persons in a foreign country have caused or contributed to such pollution, and in obtaining an effective remedy against such persons under the relevant rules of private law which require proof of fault;

Desirous, in such cases, to secure a speedy remedy, for those who suffer damage resulting from water pollution in a neighbouring country, against the state in whose territory such water pollution arises,

²⁴⁸ This draft, which was attached to the recommendation of the Committee on Regional Planning and Local Authorities, was accompanied by an explanatory memorandum submitted by the Rapporteur. The memorandum gives a brief account of the problems of water pollution control in Europe. It deals with the present state of public international law in the matter. In that connexion, it raises and discusses the following questions: the relevance of international law; doctrine and State conduct; and international cases and conventions. The memorandum then introduces the draft convention and refers to specific provisions to indicate the sources from which they are derived (*ibid.*, pp. 11-40).

²⁴⁹ See above, foot-note 216.

while placing equitable limits upon the extent of such a state's liability and affording to such a state every possible means of redress against those persons whose negligence or other wrongful acts or omissions have caused or contributed to such damage,

Have agreed as follows:

Chapter I

DEFINITIONS—RELATIONS BETWEEN STATES

Article 1

For the purpose of this Convention:

(a) "international drainage basin" means a geographical area extending over two or more contracting states determined by the watershed limits of the system of waters, flowing into a common terminus;

(b) "waters" means internal waters, whether on the surface or underground;

(c) "water pollution" means any detrimental change directly or indirectly resulting from the activities of man in the natural composition, content or quality of the waters;

(d) "person" means any natural or legal person excluding a state.

Article 2

1. Contracting states shall take measures to abate any existing pollution and to prevent any new form of water pollution or any increase in the degree of existing water pollution causing or likely to cause substantial injury or damage in the territory of any other contracting state. Such measures shall be designed to preserve, to the maximum extent possible, the qualities of the waters of international drainage basins in order to safeguard public health and to permit their use, after such economically justified treatment as may be necessary, in particular for:

(a) the production at a reasonable cost of drinking water of good quality;

(b) the conservation and development of aquatic resources, including both fauna and flora;

(c) the production of water for industrial purposes;

(d) irrigation;

(e) use by domestic animals and wild life;

(f) recreational amenities, with due regard to health and aesthetic requirements.

2. Contracting states shall for the purpose of effectively implementing the provisions of paragraph 1 of this Article:

(a) wherever possible, agree to establish and maintain standards of quality for the waters of an international drainage basin extending over their territories;

(b) where appropriate in the circumstances, establish joint commissions to regulate usage of such waters;

(c) inform the other contracting states about standards in force under paragraph (a);

(d) from time to time inform and consult with other contracting states concerned, about the usages of such waters;

(e) adopt legislative and administrative measures to implement this Convention within their respective territories.

Chapter II

SETTLEMENT OF DISPUTES BETWEEN STATES

Article 3

In the event of any dispute between any contracting states about their rights, interests or obligations under, or the interpretation of, any of the provisions of this Convention, they shall seek a solution by negotiation.

Article 4

If the contracting states concerned shall be unable to resolve any dispute by negotiation, they shall refer such dispute for determination:

(a) to the appropriate joint commission, if any, in respect of the particular international drainage basin concerned; or

(b) to such international tribunal, or organization, as may be agreed upon by the contracting states concerned, or

(c) in the absence of a joint commission, under sub-paragraph (a) and failing agreement pursuant to sub-paragraph (b) by reference of the dispute, at the application of any one or more of the contracting states concerned, to an *ad hoc* arbitral tribunal in accordance with Article 5.

Article 5

1. The Arbitral Tribunal shall be constituted for the determination of each dispute. Each contracting state party to such a dispute (in this Article referred to as the "state party") shall appoint one member to the Tribunal. The members shall nominate as President a national of a state other than a state party who shall be appointed by the governments of the states parties. The members shall be appointed within two months and the President within three months after any state party has informed the other states parties or state party, as the case may be, of its intention to refer such a dispute to the Tribunal for determination.

2. If the time limits set out in paragraph 1 are not observed, any state party may request the President for the time being of the European Court of Human Rights to make the necessary appointments. If the President of the Court is a national of any state party, or is otherwise unable to act in accordance with this Article, the Vice-President of the Court shall make such appointments. If the Vice-President is also a national of any state party, or is otherwise unable to act as aforesaid, the next member of the Court in order of precedence who is not such a national shall make such appointments.

3. The President and each member of the Tribunal shall have one vote and the decision of the Tribunal shall be made by majority vote, and, in the event that votes are cast equally, the President shall have the casting vote. The decision of the Tribunal shall be binding upon the states parties.

4. Each state party shall pay its own expenses and an equal share of the costs of the Tribunal unless the Tribunal shall otherwise decide.

Article 6

The settlement of any dispute under the provisions of this chapter shall take into account the following considerations:

(a) the geography and hydrology of the particular international drainage basin;

(b) the usage by the contracting states concerned, of the waters of the particular international drainage basin;

(c) economic and social needs of the contracting states concerned;

(d) the avoidance of unnecessary waste in the utilisation of such waters;

(e) whether the payment of monetary compensation would constitute just reparation for a contracting state which has suffered or is likely to suffer damage from water pollution;

(f) any relevant monetary compensation or other remedy already obtained under Chapter III of this Convention;

(g) the cost and effectiveness of existing and alternative measures to abate or eliminate existing water pollution or to prevent future water pollution;

(h) the extent to which the contracting states concerned benefit or would be likely to benefit from such measures; and

(i) the extent to which a contracting state would be likely to benefit or suffer damage from the measures contemplated by the settlement of the dispute.

Chapter III

COMPENSATION FOR DAMAGE TO PERSONS

Article 7

1. Any person who suffers damage in any contracting state arising from water pollution in any other contracting state shall be entitled to compensation in accordance with the provisions of this chapter, provided that, where standards of water quality have been adopted under paragraph 2 (a) of Article 2 for the international drainage basin concerned, compensation shall be recoverable only in respect of such damage as shall be caused in contravention of such standards.

2. Any compensation obtained by a contracting state for any person in respect of such damage shall be deducted from such compensation as would otherwise be awarded to such person in respect thereof under this chapter.

3. Nothing in this Convention shall affect the right to bring any proceedings in any contracting state, whether civil or criminal, which might have been brought if this Convention had not entered into force.

Article 8

The liability for compensation contemplated by Article 7 shall attach to the contracting state in whose territory any water pollution arises whether wholly or in part (hereinafter referred to as "the responsible state").

Article 9

1. A state which would otherwise be liable under the provisions of this chapter shall not be liable if it proves that the damage was caused solely by the negligence or other wrongful act or omission by the claimant or by any other person in the territory where the damage was caused.

2. If the responsible state proves that the damage was contributed to by the negligence or other wrongful act or omission of the claimant or of any other person committed in the territory of the state where the damage was caused, the compensation shall be reduced accordingly.

Article 10

1. Notwithstanding any other provisions of this chapter, the responsible state shall be entitled to obtain such remedies as are available under its internal law against any person who has caused or contributed to water pollution by a negligence or other wrongful act or omission in the territory of such state.

2. Subject to any monetary compensation or other remedy already obtained, the responsible state shall be entitled, as against any person who has contributed to water pollution by his negligent or other wrongful act or omission committed in the territory of any contracting state (other than the state where the relevant damage was suffered), to obtain such remedies as are available under the internal law of such state.

Article 11

1. Actions under the provisions of this chapter may be brought only in the courts of the responsible state. Contracting states shall notify the Secretary General of the Council of Europe of the courts within their respective territories having jurisdiction to hear and determine actions which may be brought under the provisions of this chapter.

2. Any action under this chapter must be brought within two years from the date upon which the claimant first knew or ought to have known that he had suffered the damage the subject of such action.

Article 12

1. The responsible state shall not be entitled to invoke any jurisdictional immunity in the court competent under the provisions of this chapter.

2. Contracting states shall, as far as possible, facilitate payment of compensation in the currency of the state where damage has occurred.

375. Recommendation 555 (1969) on a draft European Convention on the Protection of Fresh Water against Pollution was transmitted to the Committee of Ministers, which invited the *Ad Hoc* Study Group on Water Pollution to express its opinion on this draft. In the light of this opinion, the Committee of Ministers adopted the following reply to the Consultative Assembly:

The Committee of Ministers has given careful consideration to recommendation 555 concerning a draft European convention on the protection of fresh water against pollution.

It came to the conclusion, in so doing, that concerted action in the Council of Europe on the pollution of fresh water was justified and even indispensable: the draft Convention could not, however, in its present form, provide a suitable basis for such action, for the following reasons:

(i) The Draft is almost exclusively concerned with finding a solution which would impose the liability for damages—in practice unlimited—on the States concerned, whereas the problem calls in the first place for collective preventive action to combat the root causes of pollution.

(ii) There are grave objections to the principle of State liability as laid down in the draft Convention. There is, as yet, no comparable example in international law and, moreover, the State liability proposed goes even further than the "Helsinki Rules" referred to in Doc. 2561. In fact, the legal problems raised by State liability of the kind envisaged would impair water protection rather than promote it.

(iii) The draft Convention creates an inequality between downstream States and upstream States with regard to the burdens following from water pollution, the upstream States alone bearing the consequences (especially financial) of any pollution in the majority of cases.

(iv) In addition to a certain number of other detailed criticisms of the text which might be raised, it should be pointed out that the system of arbitration provided for in the draft Convention for settling differences between States is inadequate both as to the law applicable (article 2) and as regards the composition of the Arbitral Tribunal (article 5), particularly in cases where several States are defending an identical interest before such a tribunal against a single State.

The Committee of Ministers therefore considers it necessary to look for a new basis for concerted action by member States of the Council of Europe in the control of fresh water pollution. It has accordingly taken steps to enable a legal instrument reflecting the aims set forth by the Assembly in recommendation 555 to be drawn up as speedily as possible.²⁵⁰

(e) *Draft European convention for the protection of international watercourses against pollution*

376. As a result of the above-mentioned conclusions, the Committee of Ministers instructed the Secretariat to elaborate, with the assistance of consulting experts, legal principles which could serve as a basis for drawing up an appropriate instrument in the field covered by Recommendation 555 (1969) and which could enable the Study Group on Water Conservation to prepare a final draft text. A preliminary draft convention was prepared by the Directorate of Legal Affairs of the Secretariat General.²⁵¹

377. In 1970, the Committee of Ministers established an *Ad Hoc* Committee of Experts to prepare a European Convention on the Protection of International Fresh Waters against Pollution. The *Ad Hoc* Committee proceeded to an examination of the preliminary convention. At the second meeting of the Committee, held in Strasbourg from 5 to 8 July 1971 "a general agreement was reached on a number of important points both technical and legal".²⁵² At its fourth meeting, held in Strasbourg from 13 to 16 December 1972, the *Ad Hoc* Committee, which proceeded to a new examination of the preliminary draft convention, decided to set up a drafting committee to prepare a new text to be examined at the next meeting of the *Ad Hoc* Committee.²⁵³ At its February 1974 meeting, the *Ad Hoc* Committee prepared the following draft convention:

The member States of the Council of Europe, signatory hereto,
Considering that the aim of the Council of Europe is to achieve a greater unit between its Members;

²⁵⁰ Council of Europe, Committee of Ministers, doc. CM(70) 134.

²⁵¹ *Ibid.*

²⁵² Consultative Assembly of the Council of Europe, Statutory Report, Communication on the activities of the Committee of Ministers, 10 May–22 September 1971, Doc. 2995, p. 49.

²⁵³ *Id.*, Doc. 3239, p. 39.

Considering that protection of the environment, an important factor in the conditions of human life, demands closer co-operation between governments;

Considering that water resources are threatened by increasing pollution;

Convinced of the urgent need for general and simultaneous action on the part of States and for co-operation between them with a view to protecting all water resources against pollution, especially watercourses forming part of an international hydrographic basin;

Being of the opinion that the protection of international watercourses against pollution constitutes only one important step towards the achievement of that objective and that this action must be complemented by the conclusion of conventions for the prevention of marine pollution from land-based sources, in order to ensure that the present Convention is fully effective;

Have agreed as follows:

Article 1

For the purposes of this Convention:

(a) "international watercourse" means any watercourse, canal or lake which separates or passes through the territories of two or more States;

(b) "estuary" means the part of a watercourse between the freshwater limit and the baseline of the territorial sea;

(c) "freshwater limit" means the place in the watercourse where, at low tide and in a period of low freshwater flow, there is an appreciable increase in salinity due to the presence of sea water;

(d) "water pollution" means any impairment of the composition or state of water, resulting directly or indirectly from human agency, in particular to the detriment of:

its use for human and animal consumption;

its use in industry and agriculture;

the conservation of the natural environment, particularly of aquatic flora and fauna.

Article 2

Each Contracting Party shall endeavour to take, in respect of all surface waters in its territory, all measures appropriate for the reduction of existing water pollution and for the prevention of new forms of such pollution.

Article 3

1. Each Contracting Party undertakes, with regard to international watercourses, to take:

(a) all measures required to prevent new forms of water pollution or any increase in the degree of existing water pollution;

(b) measures aiming at the gradual reduction of existing water pollution.

2. This Convention is not to lead to the replacement of existing measures by measures giving rise to increased pollution.

Article 4

1. Each Contracting Party shall take all measures appropriate for maintaining the quality of the waters of international watercourses at, or for raising it to, a level not lower than:

(a) the specific standards referred to in Article 15, paragraph 2; or

(b) in the absence of such specific standards, the minimum standards laid down in Appendix I to this Convention, subject to any derogation provided for in paragraph 2 of the present Article.

2. The minimum standards laid down in Appendix I shall be applied:

(a) in the case of freshwater standards, at the freshwater limit and at each point upstream from this limit where the watercourse is crossed by a frontier between States;

(b) in the case of brackish water standards, at the baseline of the territorial sea and at the points where the estuary is crossed by a frontier between States.

3. Derogations to the application of Appendix I at the points fixed by the previous paragraph are authorized for the watercourses

and the parameters listed in Appendix IV to this Convention. The Contracting Parties riparian to such a watercourse shall co-operate with each other in accordance with the provisions of Article 10.

Article 5

1. The discharge into the waters of international hydrographic basins of any of the dangerous or harmful substances listed in Appendix II to this Convention shall be prohibited or restricted under the conditions provided for in that Appendix.

2. In so far as a Contracting Party cannot immediately give effect to the provisions of the preceding paragraph, it shall take steps to comply with them in a reasonable time.

Article 6

1. The provisions of Articles 3 and 4 may not be invoked against a Contracting Party to the extent that the latter is prevented, as a result of water pollution having its origin in the territory of a non-Contracting State, from ensuring their full application.

2. However, the said Contracting Party shall endeavour to co-operate with the non-Contracting State so as to make possible the full application of these provisions.

Article 7

1. Each Contracting Party shall communicate to the Secretary General of the Council of Europe every five years a written statement of the measures which it has taken to implement Articles 2 to 5 inclusive and of the results achieved.

2. The Secretary General shall notify the other Contracting Parties of the information received from each of them and shall forward such information to the Committee of Ministers of the Council of Europe.

Article 8

The Contracting Parties undertake to co-operate with each other with a view to achieving the aims of this Convention.

Article 9

The Contracting Parties riparian to an international watercourse to which the minimum standards laid down in Appendix I to this Convention are to be applied and the waters of which do not yet meet the level of these standards shall advise each other of the measures they have taken with a view to reaching, within a fixed time-limit, this level at the points fixed by Article 4, paragraph 2.

Article 10

1. The Contracting Parties situated either upstream or downstream of a point on an international watercourse at which the derogations provided for in Article 4, paragraph 3, apply shall carry out, in consultation with each other and before the end of the first year after this Convention enters into force in respect of them, an inquiry with a view to establishing the quality of the waters at this point as regards the parameters covered by the derogation.

2. The Contracting Parties riparian to such a watercourse shall jointly establish a programme designed to achieve, within a fixed time-limit, certain objectives for reducing pollution at the point referred to in the preceding paragraph. This programme may envisage various stages each reaching intermediate objectives. A comparison shall be effected between the objectives envisaged and the results obtained at the expiration of the fixed time-limits.

3. If the inquiry or the results mentioned in the preceding paragraphs show that it is no longer necessary to maintain the derogation as regards one of the parameters, the Contracting Party which requested the derogation shall notify the Secretary General of the Council of Europe of its suppression as regards that parameter.

Article 11

As soon as a sudden increase in pollution is recorded, the Contracting Parties riparian to the same watercourse shall immediately warn each other, and shall take unilaterally or jointly all measures in their power to avert injurious consequences or to limit the extent thereof, having recourse to the early warning system envisaged in Article 15, paragraph 1 (c), if any.

Article 12

1. The Contracting Parties whose territories the same international watercourse separates or passes through, hereinafter called "the interested Contracting Parties", undertake to enter into negotiations with each other, if one of them so requests, with a view to concluding a co-operation agreement or to adapting existing co-operation agreements to the provisions of this Convention.

2. When the interested Contracting Parties admit expressly or tacitly that the contribution of one of them to the pollution of the international watercourse can be deemed negligible, the latter Contracting Party is not bound to enter into negotiations in conformity with the preceding paragraph. Likewise, when the pollution of one section of an international watercourse by another section situated upstream on the same watercourse can be deemed negligible, the Contracting Parties riparian to one or the other of these two sections are not bound to enter into negotiations with regard to the watercourse as a whole.

Article 13

If an interested Contracting Party does not enter into negotiations within a reasonable time, any interested Contracting Party may inform the Committee of Ministers of the Council of Europe which shall then hold itself at the disposal of the interested Contracting Parties in order to find a procedure for reaching a satisfactory solution. The same shall apply if the negotiations, once begun, do not reach a positive conclusion within a reasonable time.

Article 14

1. The co-operation agreement referred to in Article 12 of this Convention shall, unless the interested Contracting Parties decide otherwise, provide for the establishment of an international commission and lay down its organization, its modes of operating and, if necessary, the rules for financing it.

2. The co-operation agreement shall, where appropriate, provide that any existing commission or commissions shall be assigned the functions provided for in Article 15.

3. Where two or more international commissions exist for the protection against pollution of the waters of the international watercourses of the same hydrographic basin, the interested Contracting Parties undertake to co-ordinate their activities in order to improve the protection of the waters of this basin.

Article 15

1. Each international commission for water protection shall have *inter alia* the following functions:

(a) to collect and to verify at regular intervals data concerning the quality of the water of the international watercourse;

(b) to propose, if necessary, that the interested Contracting Parties carry out or have carried out any additional investigation to establish the nature, degree and source of pollution; the commission may also decide to undertake certain studies itself;

(c) to propose to the interested Contracting Parties that an early warning system be set up for serious accidental pollution;

(d) to propose to the interested Contracting Parties any additional measures that it considers useful;

(e) to study, at the request of the interested Contracting Parties, the advisability and, if necessary, the methods of jointly financing large-scale projects concerning water pollution control;

(f) to propose to the interested Contracting Parties the inquiries and the programmes and objectives for reducing pollution mentioned in Article 10 concerning the international watercourses for which a derogation has been made pursuant to Article 4, paragraph 3.

2. In compliance with the general aims defined in Articles 2, 3, 4 and 5, each international commission shall, if it deems it necessary, propose to the interested Contracting Parties the assignment of the international watercourse under its authority, or one or more of its sections, to one or more of the possible uses of the watercourse. According to these uses and in conformity with the provisions of Article 17, the commission shall elaborate specific standards of water quality as well as the ways and means of applying them, and shall propose these for adoption by the interested Contracting Parties.

Article 16

1. Each interested Contracting Party shall have one vote in any international commission of which it is a member, unless the co-operation agreement provides otherwise.

2. The co-operation agreement may provide that a proposal adopted by a unanimous decision of the commission shall be binding on each member State, unless it informs the commission within a period to be fixed by the latter that it does not approve of the proposal or is unable to express an opinion thereon.

Article 17

1. The specific standards referred to in Article 15, paragraph 2 shall be adapted to the various possible uses of the international watercourse, such as:

- (a) production of drinking water for human consumption;
- (b) consumption by domestic and wild animals;
- (c) conservation of wild life, both flora and fauna, and securing conditions in which they thrive, and the conservation of the self-purifying capacity of water;
- (d) fishing;
- (e) recreational amenities, with due regard to health and aesthetic requirements;
- (f) the application of freshwater directly or indirectly to land for agricultural purposes;
- (g) production of water for industrial purposes;
- (h) the need to preserve an acceptable quality of sea water.

2. These specific standards shall be determined taking into account the quality limits for each use as set out in Appendix III to this Convention, and in particular must be at a level which ensures that the quality of the water of the watercourse or of the section thereof which has been assigned to the use is of a level at least equal to that of those quality limits in Appendix III which are of an imperative nature.

Article 18

Each interested Contracting Party undertakes to furnish to the international commissions of which it is a member the necessary facilities for the accomplishment of their tasks.

Article 19

1. Each interested Contracting Party shall take all legislative and administrative measures necessary for the implementation of the undertakings which it has accepted under co-operation agreements.

2. Such undertakings may in no case be interpreted to prevent a Contracting Party from taking, as far as it is concerned, stricter or more effective measures.

Article 20

The co-operation agreement may make provision for a procedure which, set in motion at the request of any Contracting State, would permit a satisfactory solution to be reached when:

- (a) the international commission has not reached agreement on the adoption of a proposal;
- (b) a Contracting State has not approved, within a reasonable time, a proposal submitted to it by the international commission of which it is a member.

Article 21

The provisions of this Convention shall not affect the rules applicable under general international law to any liability of States for damage caused by water pollution.

Article 22

1. Any dispute between Contracting Parties concerning the interpretation or application of this Convention or of a co-operation agreement referred to in Articles 12 to 20 thereof, including an act made in execution of such an agreement and binding upon the Parties, shall, if it has not been possible to settle it through negotiations between the parties to the dispute and unless these parties decide otherwise, be submitted, on the application of one of them, to arbitration as provided for in Appendix A to this Convention.

2. The provisions of the preceding paragraph shall not affect the undertakings by which the parties to the dispute have agreed or may agree, under a co-operation agreement, upon another procedure for the settlement of disputes concerning the interpretation or application of this agreement or of acts made in execution of it and binding upon the parties. However, if provision is not made in such procedure for a binding decision and if, once set in motion, such procedure does not lead to the settlement of the dispute within nine months, one or other of the parties to the dispute may have recourse to the arbitral procedure provided for in Appendix A to this Convention.

...

APPENDIX I

Minimum standards for international watercourses referred to in Article 4, paragraph 1 (b)

[Not reproduced]

APPENDIX II

Dangerous or harmful substances referred to in Article 5

[Not reproduced]

APPENDIX III

Quality limits for international watercourses according to their possible uses, as referred to in Article 17, paragraph 2

[Not reproduced]

List of watercourses for which derogations to the undertakings under Article 4, paragraph 1 (b) are permissible

[Not reproduced]

APPENDIX A

ARBITRATION

Article 1

Unless the parties to the dispute decide otherwise, the arbitral procedure shall be in accordance with the provisions of this Appendix.

Article 2

1. Upon an application addressed by one Contracting Party to another Contracting Party in accordance with Article 22 of the Convention, an arbitral tribunal shall be set up. The application for arbitration shall state the subject-matter of the application and shall be accompanied by proposals for the settlement of the dispute as well as any supporting documents.

2. If the dispute relates to the Convention, the party making the application shall inform the Secretary General of the Council of Europe of the fact that it has asked for an arbitral tribunal to be set up, of the name of the other party to the dispute and of the articles of the Convention the interpretation or application of which are, in its opinion, the subject-matter of the dispute. The Secretary General shall transmit the information so received to all the Contracting Parties to the Convention.

Article 3

The arbitral tribunal shall consist of three members: each of the parties to the dispute shall appoint one arbitrator; the two arbitrators so appointed shall designate by common agreement the third arbitrator who shall be the chairman of the tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his usual place of residence in the territory of one of these parties, nor be employed by one of them, nor have dealt with the case in another capacity.

Article 4

1. If the chairman of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the President of the European Court of Human Rights shall, at the request of either party, designate him within a further two months' period.

2. If one of the parties to the dispute does not appoint an arbitrator within two months of receipt of the application, the other party may refer the matter to the President of the European Court of Human Rights, who shall designate the chairman of the arbitral tribunal within a further two months' period. As soon as designated, the chairman of

the arbitral tribunal shall request the party which has not appointed an arbitrator to do so within two months. After this period has expired, he shall refer the matter to the President of the European Court of Human Rights, who shall make this appointment within a further two months' period.

3. If in the cases envisaged in the preceding paragraphs, the President of the European Court of Human Rights is unable to act or is a national of one of the parties to the dispute, the chairman of the arbitral tribunal shall be designated or the arbitrator appointed by the Vice-President of the Court or by the most senior member of the Court who is not unable to act and is not a national of one of the parties to the dispute.

4. The above provisions shall apply, as the case may be, in order to fill any vacancy.

Article 5

1. The arbitral tribunal shall decide according to the rules of international law and, in particular, those of this Convention and of the co-operation agreement binding upon the parties to the dispute, including the acts made in execution of this agreement and binding upon these parties.

2. Any arbitral tribunal constituted under the provisions of this Appendix shall draw up its own rules of procedure.

Article 6

1. The decisions of the arbitral tribunal, both on questions of procedure and of substance, shall be taken by majority vote of its members; the absence or abstention of a member for whose appointment one of the parties to the dispute was responsible shall not prevent the tribunal from reaching a decision.

2. The tribunal may take all appropriate measures in order to establish the facts. If two or more arbitral tribunals set up under the provisions of this Appendix are seized of applications with identical or analogous subject-matter, they may inform themselves of the proceedings relating to the establishment of the facts and take them into account as far as possible.

3. The parties to the dispute shall provide all facilities necessary for the effective conduct of the proceedings.

4. The absence or default of a party to the dispute shall not prevent the operation of the proceedings.

Article 7

1. The award of the arbitral tribunal shall be supported by a statement of reasons. It shall be final and binding upon the parties to the dispute.

2. Any dispute which may arise between the parties concerning the interpretation or execution of the award may be submitted by either party to the arbitral tribunal which made the award or, if the latter cannot be seized thereof, to another arbitral tribunal set up for this purpose in the same manner as the first.

(f) Recommendation 629 (1971) of the Consultative Assembly, on the pollution of the Rhine valley water-table

378. On this more specific subject, the Consultative Assembly, on 22 January 1971, adopted, on the recommendation of the Committee on Regional Planning and Local Authorities,²⁵⁴ recommendation 629 (1971) on the pollution of the Rhine valley water-table, the text of which reads as follows:

The Assembly,

1. Having regard to the report on the pollution of the Rhine valley water-table presented by its Committee on Regional Planning and Local Authorities (Doc. 2904);

2. Recalling its earlier views on fresh water pollution control, in particular Recommendation 436 (1965) calling for a Water Charter and Recommendation 555 (1969) on the conclusion of a draft European Convention on the protection of fresh water against pollution;

²⁵⁴ *Id.*, Report on the pollution of the Rhine Valley water-table, Doc. 2904.

3. Welcoming the adoption by the Committee of Ministers of Resolution (70) 30 on 24 October 1970, on planning of the management of water resources, while regretting that this resolution makes no mention of the problems peculiar to water-tables;

4. Considering that the efficacy of fresh water pollution control depends on the acceptance of certain principles by as many countries as possible, and at least by the countries of Western Europe, and in general calls for concerted action within a given drainage basin in accordance with the eleventh principle of the European Water Charter;

5. Reaffirming that most environment problems, including water pollution, are of an international character;

6. Noting in this connection that the Rhine valley-water-table is not only the most important fresh water reservoir in Europe but also the indivisible asset of a number of European countries;

7. Noting that, although it is not immediately apparent to the public, pollution increasingly threatens this vital fresh water reserve;

8. Noting further that the management of this water reserve and its safeguarding against pollution are tasks whose effective accomplishment can only be ensured jointly by all the countries bordering on it: Germany, France, Switzerland, Luxembourg and the Netherlands;

9. Emphasising the urgent need for such co-operation, which is a proof of both the solidarity existing between frontier regions and the practical nature of the problems calling for common action.

10. Recommends that the Committee of Ministers:

(a) invite the governments concerned to institute such co-operation in regard to the Rhine valley water-table and to refer the question to the European Conference of Ministers responsible for Regional Planning through their Committee of Senior Officials, in accordance with the Bonn resolution which urges, *inter alia*, co-ordinated action in frontier areas with a view to "the tracing of courses of pollution whose effects extend beyond the frontier";

(b) initiate concrete action on their own Resolution (68) 36 concerning studies on groundwater deposits, adopted in November 1968 by taking the following decisions, which are calculated to promote international co-operation in regard to research into pollution control and to lead to joint management of the Rhine valley water-table:

(i) to invite the governments directly concerned to initiate such co-operation among themselves and to entrust the *Institut de mécanique des fluides* in Strasbourg with the task of co-ordinating research work;

(ii) to authorise the Secretary-General of the Council of Europe to grant his patronage and administrative aid to such an international institute for co-ordination and research in regard to the Rhine valley water-table, as a first step towards co-operation between the Council of Europe and technical bodies specialising in research into surface and underground water resources;

(iii) to instruct the Secretary-General of the Council of Europe to seek ways and means of co-operating with the International Commission for the Protection of the Rhine against Pollution;

(iv) to transmit this recommendation and the report of the Committee on Regional Planning and Local Authorities (Doc. 2904) to:

the Committee on Co-operation in Municipal and Regional Matters, with the request that it be taken into account by the latter body in its study of transfrontier co-operation, a subject included in its work programme;

the European Committee for the Conservation of Nature and Natural Resources, for the attention of its *Ad Hoc* Study Group on Water Pollution;

the European Ministerial Conference on the Environment which will be held in Vienna in 1972.

3. ORGANIZATION OF AMERICAN STATES

(a) *Draft convention on the industrial and agricultural use of international rivers and lakes, prepared by the Inter-American Juridical Committee in 1965*

379. In 1959, the Inter-American Juridical Committee

decided, within the framework of its activities relating to the development and codification of public international law and of private international law, and uniformity of the legislation of the American States, to take up the question of international rivers. In 1962, it requested the General Secretariat of the Organization of American States to prepare a document on the industrial or agricultural use of international rivers. This document was published in 1963 under the title *Ríos internacionales (Utilización para fines industriales o agrícolas)*.²⁵⁵ In 1963, the Committee adopted a draft convention on the industrial and agricultural use of international rivers and lakes,²⁵⁶ which was transmitted to member States for comments.²⁵⁷ In 1965, the Committee prepared a revised draft convention on the industrial and agricultural use of international rivers and lakes, which reads as follows:

Whereas:

The American States have co-operated for many generations in the realization of important common undertakings;

The utilization of waters in accordance with modern technological methods contributes decisively to the economic development of their peoples; and

It is the common desire of the Contracting Parties to ensure the development of those resources so that they may benefit the well-being of their peoples;

The Governments of the member States of the Organization of American States have agreed as follows:

Article 1

This convention establishes the general standards concerning the utilization of the waters of international rivers and lakes for industrial and agricultural purposes.

Article 2

The provisions of this convention shall not imply the total or partial revocation of regional or bilateral agreements in effect between the High Contracting Parties.

Article 3

The terms mentioned below have the following meanings:

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

(b) An international lake is one whose banks belong to more than one State.

(c) Agricultural use is the utilization of the waters for irrigation or other agricultural uses.

(d) Industrial use is the utilization of the water for the production of electric power or for other industrial purposes.

(e) A notification is a written communication stating that it is planned to utilize the waters or to build works that may modify the existing regimen.

(f) An interested State is one that has jurisdiction over some part of an international river or lake.

Article 4

The right of a State to industrial or agricultural utilization of the waters of an international river or lake that are under its sovereignty

²⁵⁵ OEA/SER.I/VI, CIJ-75 (Washington, D.C., Pan American Union, 1964).

²⁵⁶ See *Industrial and agricultural use of international rivers and lakes*, OEA/Ser.I/VI/2, CIJ-67 (Washington, D.C., Pan American Union, 1964), p. 24.

²⁵⁷ See *Actas y Documentos de la Quinta Reunión del Consejo Interamericano de Jurisconsultos*, vol. I (OEA/Ser. I/VI, CIJ-84) (Washington, D.C., Unión Pan Americana, 1964), pp. 77-126.

does not imply non-recognition of the eventual right of the other riparian States.

Article 5

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

Article 6

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

Article 7

No State may utilize or authorize the utilization of an international river under conditions that are less strict than those to which the utilization of domestic rivers is subjected by law, custom, or usage.

A State may, however, demand that greater precautions or requisites be adopted when those that govern in another of the interested States are inferior to those that are generally or prevalently in force for international waters.

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.

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If no reply is received within the aforesaid period, it shall be understood that the State or States that were notified have no objections to the work that is being planned and that, consequently, the notifying State may proceed to execute its plans in accordance with the project that was presented. No later claim by the notified State shall be valid.

II

If observations of a technical nature or relating to foreseeable damage or injury are made in the reply to the notification, this document should indicate the nature and estimate of these and the name of the technical expert or experts who together with those mentioned in the notification will form a Joint Commission that will proceed to study the matter. The reply should also include an indication of the place and date for the meeting of the Joint Commission thus formed.

If the reply does not meet the foregoing requirements, it shall be considered that this procedure has not been executed.

The Joint Commission shall carry out its mandate of seeking a solution, both with respect to the best way of executing and taking advantage of the works that are planned in common benefit, and, when appropriate, with respect to indemnification for the damage and injury caused, all within the period of six months from the date of the reply to the notification.

Article 10

For the purposes of this convention, the High Contracting Parties shall settle the disputes that may arise with respect to the industrial

or agricultural use of international rivers and lakes in accordance with the peaceful procedures established by the inter-American system.

...^{258,259}

- (b) *Resolution on "Control and economic utilization of hydrographic basins and streams in Latin America" adopted by the Inter-American Economic and Social Council in 1966*

380. The Inter-American Economic and Social Council, at its fourth annual session, held in Buenos Aires in 1966, adopted resolution 24-M/66 entitled "Control and economic utilization of hydrographic basins and streams in Latin America", which reads as follows:

Whereas:

Control and better utilization of the hydrographic basins and streams that, in various regions of Latin America, make up a part of the common patrimony of the member countries of the Alliance for Progress will help to speed up the integration and multiply the potential capacity for development of those countries.

The Fourth Annual Meeting of the Inter-American Economic and Social Council at the Ministerial Level

Recommends:

To the member countries of the Alliance for Progress that, with the technical and financial assistance of international agencies, they begin or continue joint studies looking toward the control and economic utilization of the hydrographic basins and streams of the region of which they are a part, for the purpose of promoting, through multinational projects, their utilization for the common good, in transportation, the production of electric power, irrigation works, and other uses, and particularly in order to control and prevent damage such as periodically occurs as the result of rises in the level of their waters and consequent floods.²⁶⁰

- (c) *Proposed special conference on international rivers and lakes*

381. In 1963, the Brazilian Government proposed, before the Council of OAS, convening a special conference with a view to examining the question relating to the use of waters of international rivers and adopting appropriate measures on the subject. The proposal was favourably received and was placed on the agenda of the Second Special Inter-American Conference held at Rio de Janeiro in 1965. The Conference adopted Resolution X, by which it decided, *inter alia*, to convene a special conference²⁶¹ at a date and place to be fixed by the Council of the Organization with the following objectives:

- a. To study matters related to the use of international rivers and lakes for agricultural and industrial purposes, and to sign an international instrument or instruments containing general standards on the subject;
- b. To study matters related to the commercial use of international rivers and lakes, formulate the recommendations that may be called

²⁵⁸ *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. Panamerican Union, 1966), pp. 7-10. Spanish text in *Rios y Lagos Internacionales* . . . (*op. cit.*), p. 131.

²⁵⁹ As of January 1974, no further action had been taken in connexion with the draft convention.

²⁶⁰ *Final report of the Fourth Annual Meetings of the Inter-American Economic and Social Council*, vol. I (OEA/Ser.H/XII-11) (Washington, D.C., Panamerican Union, 1966), p. 48.

²⁶¹ To date, this conference has not been convened.

for, and possibly to sign an international instrument or instruments containing general standards on the subject.²⁶²

B. Multipartite and Bipartite Commissions established for specific watercourses

1. DANUBE COMMISSION²⁶³

- (a) *Decision concerning measures by the Danubian countries to protect the waters of the Danube against pollution, adopted by the Danube Commission on 27 January 1960*

382. At its eighteenth session, at the plenary meeting held on 27 January 1960, the Danube Commission took a decision in which it noted that the Danubian States were taking action to protect the waters of the Danube against pollution. It also affirmed that water pollution caused by navigation accounted for only a small part of pollution and was mainly confined to areas around oil ports and unloading docks. It recommended that the Danubian States should continue to study the control of water pollution in the Danube caused by navigation and should take the necessary effective measures.²⁶⁴

- (b) *Decision concerning the draft provisions on the control of water pollution in the Danube caused by wastes of oil products discharged from vessels, adopted by the Danube Commission on 27 January 1961*

383. At its nineteenth session, at the plenary meeting held on 27 January 1961, the Danube Commission, having considered the draft provisions on the control of water pollution in the Danube caused by wastes of oil products discharged by vessels and the report of the draft by the working group on maritime questions, decided to take the following measures:

1. To adopt the following provisions on the control of water pollution in the Danube caused by oil products discharged from vessels, to be contained in article 75/bis of chapter VI of the Fundamental Provisions concerning Navigation on the Danube:

Vessels, afloat or in port, shall be prohibited from discharging into the river wastes or residues of oil products, in any form whatsoever, or oil-contaminated water.

Wastes and residues of oil products, and oil-contaminated water, shall be discharged either on the river bank at the points indicated by the competent authorities or at special facilities on land or floating.

2. To recommend that the Danubian States and Special River Administrations should introduce the measures adopted in their national regulations as soon as possible and inform the Danube Commission when they do so.

3. To recommend that the Danubian States should construct facilities, floating or on land, in their ports, for the discharge of wastes and residues of oil products and oil-contaminated water.

²⁶² Second Special Inter-American Conference, Rio de Janeiro, Brazil, 17-30 November 1965, *Final Act* (OEA/Ser.C/I-13) (Washington, D.C., Panamerican Union, 1965), p. 25. Reproduced in *Rios y Lagos Internacionales* . . . (*op. cit.*), p. 145.

²⁶³ Established by the Convention regarding the régime of navigation on the Danube, signed at Belgrade on 18 August 1948 (see p. 115 above, document A/5409, paras. 470-473).

²⁶⁴ *Procès-verbaux de la Commission du Danube*, vol. 18 (Budapest, 1960), p. 322, CD/SES 18/24.

4. To instruct the Commission secretariat to draw up an inventory of existing facilities in the ports of the Danubian States for the discharge of wastes and residues of oil products and oil-contaminated water, and to publish it as a manual for seamen.

5. To approve the report of the working group on maritime questions on agenda item 12 (document CD/SES 19/25, part II).²⁶⁵

(c) *Recommendations concerning the unification of the regulations governing the protection of fauna and flora in the Danube*

384. These recommendations, adopted at the sixteenth session, include a paragraph 15 reading as follows:

It is prohibited to dump animal carcasses, animal litter or fodder wastes into the river, or to open hatchways to dump refuse.

On arrival in port, carcasses and wastes shall be burned or buried in accordance with the health and veterinary regulations in force in the State concerned.²⁶⁶

(d) *Recommendations concerning the unification of the health regulations relating to the Danube, adopted by the Danube Commission on 2 February 1962*

385. At its twentieth session, at the plenary meeting held on 2 February 1962, the Danube Commission decided to adopt the "Recommendations concerning the unification of health regulations relating to the Danube".²⁶⁷ These recommendations include an article 20 which reads as follows:

It is prohibited to dump into the river the corpses of persons who have died on board.

The corpses of persons who died from a disease requiring quarantine or from any other communicable disease shall be buried in the nearest port, in accordance with the health regulations of the State concerned.²⁶⁸

(e) *Fundamental Provisions concerning Navigation on the Danube, adopted by the Danube Commission on 9 June 1967*

386. At its twenty-fifth session, at the plenary meeting held on 9 June 1967, the Danube Commission decided to adopt the "Fundamental Provisions concerning Navigation on the Danube", including article 1.15 which reads as follows:²⁶⁹

1. Vessels shall be prohibited from dumping, discharging or releasing into the fairway objects or substances which may constitute a hazard or a danger to navigation or which may pollute the water of the fairway.

2. Oil wastes in any form whatsoever and oil-contaminated water shall not be dumped, discharged or released into the fairway.

3. If any of the objects or substances referred to in paragraphs 1 and 2 are accidentally discharged or released into the fairway, the steersman must immediately inform the nearest competent authorities and indicate as accurately as possible the place where the accident occurred.²⁷⁰

²⁶⁵ *Ibid.*, vol. 19 (Budapest, 1961), p. 345, CD/SES 19/28.

²⁶⁶ *Ibid.*, vol. 16 (Budapest, 1958), p. 314, CD 16/35.

²⁶⁷ *Ibid.*, vol. 20 (Budapest, 1962), p. 395, CD/SES 20/33.

²⁶⁸ *Ibid.*, p. 501, CD/SES 20/34.

²⁶⁹ *Ibid.*, vol. 25 (Budapest, 1967), p. 241, CD/SES 25/24.

²⁷⁰ *Dispositions fondamentales relatives à la navigation sur le Danube et Recommandations spéciales portant sur l'application des Dispositions fondamentales relatives à la navigation sur le Danube par les autorités compétentes des Etats danubiens* (Budapest, Commission du Danube, 1968), pp. 12 and 13.

(f) *Inventory prepared by the Danube Commission secretariat in 1971 of places and facilities provided in ports in the Danubian countries for dumping wastes and residues of oil products and oil-contaminated water*

387. The programme of work of the Danube Commission for the period from March 1970 to March 1971 instructed the Commission secretariat to obtain information on places and facilities provided in ports in the Danubian countries for dumping wastes and residues of oil products and oil-contaminated water and to prepare an inventory for consideration at the twenty-ninth session. The information obtained as at 10 February 1971 from the competent authorities of the Danubian countries indicated that "in order to prevent water pollution in the Danube, most countries have constructed special installations for wastes and residues of oil products and oil-contaminated water".²⁷¹

2. INTERGOVERNMENTAL CO-ORDINATING COMMITTEE OF THE RIVER PLATE BASIN²⁷²

Recommendations of the Group of Experts on Water Resources, approved by the Intergovernmental Co-ordinating Committee of the River Plate Basin on 20 April 1972

388. The Group of Experts on Water Resources, created by the Intergovernmental Co-ordinating Committee on the recommendation of the Foreign Ministers of the River Plate Basin States,²⁷³ submitted the following suggestions, which were approved by the Co-ordinating Committee on 20 April 1972:

*The Group of Experts
Considering*

That the Second Meeting of the Group of Experts, Brasilia, 1970, regarded as a very valuable contribution to the study of the technical aspects of water pollution the conclusions of the Sixth Meeting of Ministers of Public Health of the River Plate Basin countries and of the Seminar on "Water Quality of the River Plate Basin", held at Rio de Janeiro in 1968, as well as the conclusions of the Second Meeting of the Group of Experts on Water Resources held in Brasilia in May 1970,

Suggests to the Intergovernmental Co-ordinating Committee:

...

2. That it should request States to submit information as soon as possible on the anti-pollution legislation in force and the administrative structures of the anti-pollution agencies in each country, indicating the scope and working methods employed;

3. That, once it has the information referred to in paragraphs 1 and 2, a careful analysis should be made by an appropriate body so that a brief report can be submitted enabling the Group of Experts to make a comparative assessment of the technical, legal and administrative positions in the countries of the River Basin as regards water pollution control policy;

4. That it should request each State to submit data for the information of the other States on Research Centres responsible for studying

²⁷¹ *Procès-verbaux de la Commission du Danube*, vol. 29 (Budapest, 1971), p. 157, CD/SES 29/8.

²⁷² Established in 1967 by a joint Declaration of the Foreign Ministers of the States of the River Plate Basin (see para. 323 and foot-note 182 above).

²⁷³ The recommendation is contained in the Act of Brasilia which the Foreign Ministers adopted at the Regular Meeting they held in April 1969 (see para. 325 and foot-note 186 above).

and improving the methods of treatment of household and industrial effluents, on staff training, work programmes and possibilities of exchanges of technical experts;

5. That it should request each State to provide information on the development of water pollution control programmes and educational programmes for the conservation of water resources in the areas of the River Basin within its jurisdiction, for the information of the other States;

6. That in view of the substantial financial resources required to build the household and industrial sewage treatment plants which are essential for an effective water pollution control programme for the River Basin, States should seek financing from international financing agencies with the support of ICC, in accordance with the terms of the Treaty of the River Plate Basin, when it is in the interest of more than one State to improve the quality of the Basin waters;

...

9. That ICC should transmit to States the reports they request at least 60 days before the next meeting of the Group of Experts on Water Resources, so that the experts may have the necessary data and time to make recommendations on:

...

(e) Compatible legislation, if possible taking into consideration the comparative study of existing legislation and administrative structures (national, state, provincial and municipal) dealing with water pollution in the various countries of the Basin.

...

11. That a recommendation should be made to States immediately to adopt effective water pollution control measures on the reaches within their jurisdiction, in accordance with agreements previously concluded between the States.²⁷⁴

3. INTERNATIONAL COMMISSION FOR THE PROTECTION OF THE MOSELLE AGAINST POLLUTION²⁷⁵

389. On 20 December 1961, the Governments of the Federal Republic of Germany, the French Republic and the Grand Duchy of Luxembourg signed the Protocol²⁷⁶ establishing the International Commission for the Protection of the Moselle against Pollution. This Commission has just prepared a memorandum on the quality of the Moselle waters. The memorandum states that "after extensive preparatory work, the Commission established some standards for the quality of the Moselle waters to be applied in relation to a standard flow rate. The Commission based the standards mainly on the natural conditions in the Moselle basin and on household and industrial utilization of water". The memorandum also states that, in establishing standards for the quality of the Moselle waters, the Commission cited the fourth principle of the European Water Charter,²⁷⁷ which reads as follows: "The quality of water must be maintained at levels suitable for the use to be made of it and, in particular, must meet appropriate public health standards". In conclusion, the memorandum states that "between 1964 and 1970 the established standards were surpassed on various occasions, even at flow rates higher than the standard flow. The Commission realizes that it will be costly for each country to reach these standards, but it feels that they are indispensable in the interests of all. That is why the established standards should be regarded as objectives

²⁷⁴ Text provided by the Argentine Government.

²⁷⁵ Information provided by the Ministry of Foreign Affairs of Luxembourg.

²⁷⁶ See paras. 134-137 above.

²⁷⁷ See para. 373 above.

to be reached gradually. The future work of the Commission will consist mainly in making specific proposals on how to attain this objective." In this connexion, it draws attention to the fifth principle of the European Water Charter, which states: "When used water is returned to a common source it must not impair the further uses, both public and private, to which the common source will be put".

4. LAKE CHAD BASIN COMMISSION²⁷⁸

390. In a letter dated 10 January 1973, the Lake Chad Basin Commission provided the following information on the question of the protection of international watercourses against pollution:

At the present time there seems to be no pollution caused by the discharging of toxic residues into the international rivers and lakes of the Lake Chad Basin Commission.

There is a possibility that the textile plants and breweries of Chad along the Chari and the Logone, rivers flowing into Lake Chad, might have a minimal localized effect on the waters; but we have no detailed information on this.

However, a problem might arise if any member country of our organization established a paper-making plant using the subaquatic vegetation in Lake Chad, or a leather tanning plant; such factories would need large quantities of water, and they would also discharge large amounts of wastes which would be very harmful to the aquatic fauna.

In southern Chad and northern Cameroon, some peasants fish using local plant-based poisons or chemical poisons, originally intended for agricultural use; this has very serious consequences for the aquatic fauna, which is completely destroyed, and also for the consumers, who are slowly being poisoned.

In one of its recommendations, the Lake Chad Basin Commission proposed that the use of synthetic poisons should be prohibited in fishing. It would seem impossible to prohibit the use of local poisons for fishing, because of the lack of personnel and financial resources to enforce the prohibition.

The pesticides used to control fowl-pest in the area of the Lake Chad Basin affect only the immediate surroundings; they could, however, have definite undesirable effects on the aquatic fauna, if they are sprayed over water surfaces.

In Chad, a Nature Protection Committee has been established to deal with various aspects of water pollution and means of preventing it, although such problems will not arise for some time.

We can thus conclude that pollution of international waters does not at the present time constitute a serious problem for the Lake Chad Basin Commission.

5. INTERNATIONAL JOINT COMMISSION, CANADA AND THE UNITED STATES OF AMERICA²⁷⁹

391. In 1909, the Boundary Waters Treaty between Canada and the United States of America²⁸⁰ came into force. Its stated purpose was to prevent disputes regarding the use of boundary waters and to make provision for the adjustment and settlement of all problems arising between the two countries along their common frontier—including the rights, obligations and interests of either in relation to the other. The Treaty provided for the establishment

²⁷⁸ Established by the Convention relating to the Development of the Chad Basin, signed at Fort Lamy on 22 May 1964 (see paras. 51-56 above).

²⁷⁹ Information provided by the Canadian Government.

²⁸⁰ See above p. 72, document A/5409, paras. 154-167.

of the International Joint Commission (set up in 1911) to settle such disputes, defined its jurisdiction and authority, and enunciated the principles by which it was to be governed. By 1912, the International Joint Commission had its full complement of Commissioners, three from Canada and three from the United States.

392. In recent years, the work of the International Joint Commission has acquired a new importance because of the responsibilities it has assumed in environmental matters. Of particular note has been the Commission's study of pollution of the Lower Great Lakes, on which it reported to the Canadian and United States Governments in late 1970.²⁸¹ The present Canada-United States Agreement²⁸² is based largely on the recommendations of the International Joint Commission Report.

393. *Powers of the International Joint Commission.* The powers of the Commission include: (1) passing on any project involving any change in the natural level or flow of boundary waters, or other waters crossing the boundary; (2) an investigative and recommendatory role in relation to specific questions arising along the boundary, referred to the Commission by the two Governments. It is normal practice for the Commission to conduct public hearings in the locality affected by the problem under study. Following conclusion of the public hearing, the Commission, in a case involving a change in the water levels or flows, issues an order approving the change, subject to such conditions as it considers appropriate to ensure protection and indemnity of interests that might be injured. In such cases, it also usually appoints an international board of control to ensure that the applicant complies with all the terms of the order of approval. In cases involving its investigative and recommendatory role the Commission submits its report to the two Governments, including its recommendations.

Where the Commission reports recommendations to Governments, these recommendations are not binding on the Governments. However, they often serve to shape the ultimate settlement of the problem under consideration. Also, the ultimate settlement of the problem often involves having the Commission maintain a surveillance function so as to enable Governments to be informed as to how the terms of the settlement are being implemented.

394. *Investigatory role.* The investigatory function of the Commission is being relied upon more and more by Governments because of the flexibility it provides. However, when acting in this role, the Commission must necessarily rely upon Governments to implement its recommendations and upon the public to spur and encourage Governments to do this. The Commission when acting in an investigatory capacity is not endowed with any specific powers of enforcement, rather, it is and was deliberately designed as a body that would have recourse to public opinion as an integral part of its operation. The

significance of its appeal to the public is that this is, in fact, its real power.

The variety and scope of the cases which have come before the Commission since 1912 are almost as broad as the international boundary along which they have arisen. Matters referred by the Governments for investigation and report have ranged all the way from the international tidal-power potential of Passamaquoddy Bay on the east coast, to the water resources of the Columbia River in the west, and from preservation of the scenic splendour of the falls at Niagara to the emission of smoke by ships on the Detroit River. "Orders of approval" have been issued by the Commission relating to such diverse works as log-booms on the Rainy River and the works required for the development of hydroelectric power in the international section of the St. Lawrence River. This application was directly related to the development of the St. Lawrence Seaway.

The main challenge facing the Commission at present concerns Canada-United States environmental problems. An important element in these problems relates to the arresting of the threat from the increasing air and water pollution that is occurring along the boundary. Actually, the only provision in the Boundary Waters Treaty itself on pollution is contained in the last paragraph of article IV, which provides that "boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other".

395. *Fifty years experience.* Acting under its investigatory role, the International Joint Commission has had experience in pollution matters extending back over 50 years, dating from 1912, when the two federal Governments sent the Commission a wide-ranging reference to examine and report "to what extent and by what causes and in what localities have the boundary waters . . . been polluted . . .". The Commission's given object was to find "in what way or manner . . . is it possible and advisable to remedy or prevent the pollution of these waters . . .". In this first instance, investigations covered a number of lakes and rivers located mainly, though not wholly, in the Great Lakes region, as well as portions of the Great Lakes themselves. This first reference was the result of the prevalence in the area of typhoid fever in 1912. In 1918, a report containing the findings of the Commission pointed out conditions as it found them in vigorous language: ". . . situation along the frontier which is generally chaotic, everywhere perilous and in some cases disgraceful". In addition, it presented recommendations for remedying and preventing pollution in the areas examined. Its first experience in this field, however, was an unsatisfactory one, for no action was taken upon the Commission's recommendations by either Government. That neglect was mainly the result of the advent of chlorination of municipal water supplies, which eliminated the incidence of typhoid, and of the general belief that there was an inexhaustible supply of clean, fresh water. The Commission then tended, with one notable exception, to turn away from matters in the pollution field for quite a number of years. That exception was its examination in 1928, upon

²⁸¹ International Joint Commission—Canada and the United States of America, *Report on Pollution of Lake Erie, Lake Ontario and the International Section of St. Lawrence River* (Washington, D.C., U.S. Government Printing Office, 1970).

²⁸² Agreement on the Great Lakes Water Quality. For a summary, see paras. 106-114 above.

referral by the two Federal Governments, of the effect and extent of the smelter fumes at Trail, British Columbia, in the neighbouring state of Washington. The International Joint Commission recommended damages be paid and measures taken to reduce emission of fumes. When the two Governments found that they were unable to reach a decision based on the International Joint Commission recommendations, an arbitral tribunal was set up jointly in 1935 and the case was finally decided on the basis of its decision.²⁸³

396. *Renewed attention to pollution.* It was not until 1946 that the Commission came back to the consideration of water pollution matters, with a reference from the two Governments to cover the St. Clair River, Lake St. Clair and Detroit River pollution problems. That reference was further extended in 1948 to include the Niagara River. The Commission recommended "objectives" for maintaining the quality of the boundary waters concerned, which were approved by the two Governments. The Commission set up advisory boards to maintain continuing supervision of these waters. From this study, the International Joint Commission moved to an important investigation in 1949 of air pollution in the Detroit-Windsor region, and from that time on has become increasingly involved in important pollution studies.

397. *Major pollution assignment.* The major assignment in pollution studies thus far has been the 1964 reference by the two Federal Governments requesting the International Joint Commission to investigate the state of pollution in Lake Erie, Lake Ontario, and the international section of the St. Lawrence River and to recommend appropriate remedial measures. This study, which extended over the period between 1964 and 1970 was the most extensive pollution study undertaken to date anywhere in the world. It provided the basis for the Agreement between Canada and the United States on Great Lakes Water Quality.

To conduct a general study of these problems the Commission appointed two advisory boards—the International Lake Erie Water Pollution Board and the International Lake Ontario–St. Lawrence River Water Pollution Board. These boards undertook extensive studies regarding the source, extent, effects, dispersal and assimilation of pollutants, appropriate parameters for water quality, the cycle of eutrophication and its effect on aquatic life and

water quality, and more effective means of treating municipal wastes. After having submitted three interim reports to the Governments, the Commission submitted its final report in January 1971. In this report, the Commission indicated that the lower Great Lakes were being seriously polluted, mainly by municipal and industrial wastes, and the report provided the basis for concrete remedial action on the part of the Federal, State and Provincial Governments concerned. This action included recommending that Governments enter into an agreement for the carrying out of water-pollution abatement programmes and of measures and schedules to achieve them. The report went on to recommend that the Commission be given the authority, responsibility and means for co-ordinating and ensuring the necessary surveillance and monitoring of water quality and of the effectiveness of pollution-abatement programmes. It further recommended that the reference of October 1964 be extended to authorize it to investigate pollution in the remaining boundary waters in the Great Lakes system and waters flowing into it.

This report and full response by Governments dramatically illustrates the increasingly important role that the Commission is playing in dealing with environmental questions along the Canada–United States boundary.

Currently, the Commission is investigating the serious problem of transboundary air pollution in the Windsor–Detroit and Sarnia–Port Huron boundary areas; the feasibility of regulating the levels of all the Great Lakes; and the possibility of preserving and enhancing the beauty of the American Falls at Niagara. In addition, it reported in 1971 upon the environmental effects of increasing the height of Rose Lake Dam in B.C.'s Skagit River Valley. This environmental study would appear to be a harbinger of the kind of study in which the International Joint Commission may become more and more involved in the future.

398. The anticipated tremendous increase in growth in Canada and the United States over the next decade will lead to a variety of new transboundary problems as well as an expansion of many existing ones. Present indications suggest that the two Governments will be turning to the Commission for advice and assistance in meeting many of these problems. The wealth of experience gained by the Commission over the past 50 years in dealing with transboundary questions makes it uniquely qualified to discharge effectively the greatly enlarged responsibilities the two Governments are in the process of assigning to it under the Agreement on Great Lakes Water Quality and are likely to assign to it in years ahead.

²⁸³ See United Nations, *Reports of International Arbitral Awards*, vol. III (*op. cit.*), p. 1905.

Part Four

Survey of Studies made or being made by international non-governmental organizations concerned with International Law

A. Institute of International Law²⁸⁴

399. At its session held in Edinburgh in 1969, the Institute of International Law decided to establish a commission to study the subject "River and lake pollution and international law".²⁸⁵ The composition of this commission was decided by the Institute at its session held at Zagreb in 1971.²⁸⁶

B. Inter-American Bar Association²⁸⁷

400. At its Fourteenth Conference held at San Juan, Porto Rico, in 1965, the Inter-American Bar Association adopted a resolution in which it stressed the importance of the studies and projects on the use of the waters of international rivers undertaken by OAS. It also supported a proposal for convening, at the earliest possible date, a special conference on this matter and expressed its desire than an inter-American instrument be worked out as soon as possible embodying the general rules on the use of the waters of international rivers and lakes which would secure their utilization for the common benefit of the American peoples.²⁸⁸

401. At its Fifteenth Conference held at San José in April 1967, the Association adopted a number of resolutions on international rivers and lakes. By one of these resolutions, it requested the Permanent Committee on Use of International Rivers and Lakes, which it had created at the Buenos Aires Conference of 1957, to pursue its studies on the use of these waters for industrial, agricultural, commercial and other purposes, and to report to the Sixteenth Conference. The full text of the resolution is as follows:

Whereas:

1. International developments show, especially during the recent years, the permanent and gradual improvement of the laws governing the use of international rivers and lakes;
2. The above-mentioned improvement requires a continued study of the facts, of the agreements entered into and the attempts to establish general principles for the common use;
3. International waters have for America unique importance to the extent that it is difficult to imagine a social and economic development and integration of the continent without an equitable and adequate usage of such waters, in achieving which the law has a substantial function;

²⁸⁴ For the relevant work done by the Institute at previous sessions, see p. 199 above, document A/5409, paras. 1069-1076.

²⁸⁵ *Annuaire de l'Institut de droit international*, vol. 53, t. II (Basle, 1969), p. 345.

²⁸⁶ *Ibid.*, vol. 54, t. II (Basle, 1971), p. 607.

²⁸⁷ For the relevant work done by the Inter-American Bar Association at previous conferences, see p. 208 above, document A/5409, paras. 1092-1096.

²⁸⁸ *Rios y Lagos Internacionales . . . (op. cit.)*, p. 99.

4. The "Permanent Committee on Use of International Rivers and Lakes", created at the X Conference in Buenos Aires, has produced important reports up to this present Conference, about studies in America and the Western Hemisphere on this subject;

Resolves

That the Permanent Committee on Use of International Rivers and Lakes continue its studies on the use of such waters for industrial, agricultural, commercial and other purposes and inform the XVI Conference as to the result of such studies,²⁸⁹

402. By another resolution, the Association recommended to OAS to hold, at the earliest possible date, a specialized conference on the use of international rivers and lakes for industrial, agricultural and commercial purposes, as called for by resolution X of the Second Extraordinary Conference held at Rio de Janeiro in 1965.²⁹⁰ The resolution reads as follows:

Whereas:

1. The work carried out by the Organization of American States in studying the juridical régime for the use of international rivers and lakes is worthy of prominence, and likewise made use of by statesmen, lawyers, or professors interested in the juridical problems and issues raised by the use of these rivers and lakes;
2. The task which the Organization of American States proposes to undertake in this connection has an extraordinary importance as it proposes to equip the American countries with adequate legal instruments for the solution of issues arising from the use of those waters;

Resolves

1. To suggest to the Organization of American States to call a Specialized Conference on the use of international rivers and lakes for industrial, agricultural and commercial purposes, at the earliest possible date, as called for by Resolution X of the Second Special Conference held in Rio de Janeiro in 1965.

2. To express the desire that the General Secretariat of the OAS continue the studies on the use of international rivers and lakes with the above-mentioned purposes, and that it publish up-to-date editions of the studies already prepared.²⁹¹

403. At the Sixteenth Conference, held at Caracas from 1 to 8 November 1969, the Inter-American Bar Association adopted a resolution on the legal aspects of the problem of contamination of waters of international rivers and lakes. The resolution reads as follows:

Whereas:

The industrial and agricultural use of international rivers and lakes can contaminate the waters of the same, causing damages and harm to the riparian States;

The increasing development of the countries of the Western Hemisphere will cause an increase in the industrial and agricultural utilization of international rivers and lakes, as well as of the underground waters related to them;

²⁸⁹ See Inter-American Bar Association, *Resolutions, Recommendations and Declarations approved by the XV Conference*, San José, Costa Rica, 10-15 April 1967, pp. 1-2.

²⁹⁰ See para. 381 above.

²⁹¹ Inter-American Bar Association, *op. cit.*

Said use will create social and economic problems in the affected countries, with serious repercussions on the health of human beings and animals, as well as on the productivity of the land;

The solution of these problems should be within the framework of the law, taking into consideration both the general principles and the standards that have been applied in regulating the utilization of said waters by the riparian States, and

The Inter-American Bar Association, concerned about this matter, established as early as 1957 a Permanent Committee on the use of international rivers and lakes in America,

Resolves

1. To recommend that the laws of the American countries on the industrial and agricultural utilization of rivers and lakes be unified or harmonized in order to avoid international controversies.

2. To recommend that in the law schools of the various universities of America there be established courses on comparative water law, especially in those countries which have rivers and lakes in common interest with others, so that better knowledge and comparison of existing legislation will result, with a view to obtaining in the near future the unification or harmonization of legislation.

3. To urge the American States to avoid the contamination of waters of international rivers and lakes, because this affects the health and economy of riparian states, and the avoidance of such contamination is indispensable for a peaceful international life.

4. To make this resolution known to the Organization of American States, to the Latin American Free Trade Association, and to the Secretariat of the Central American Common Market, suggesting to them that it be taken into consideration when said international organizations make studies on the subject.²⁹²

C. International Law Association²⁹³

1. THE HELSINKI RULES ON THE USES OF THE WATERS OF INTERNATIONAL RIVERS, ADOPTED BY THE INTERNATIONAL LAW ASSOCIATION AT ITS FIFTY-SECOND CONFERENCE HELD AT HELSINKI IN 1966

404. Continuing its work on the matter, the Committee on the Uses of the Waters of International Rivers submitted an interim report²⁹⁴ to the fifty-first Conference of the International Law Association held at Tokyo in 1964. Although the Committee had planned to submit a final report at that Conference, it was unable to complete the chapter on equitable sharing of uses. The Committee's interim report consisted of four chapters: navigational uses of international rivers and lakes; timber floating; pollution of waters of an international drainage basin; and prevention and settlement of disputes. The Conference accepted provisionally the text and commentary contained in the four chapters in question, subject to any changes that might be necessitated by the remaining chapter on the equitable sharing of uses.²⁹⁵

405. The final report of the Committee on the Uses of the Waters of International Rivers²⁹⁶ was submitted to the fifty-second Conference of the Association held at Helsinki

²⁹² Inter-American Bar Association, *Resolutions, Recommendations and Declarations approved by the XVI Conference*, Caracas, Venezuela, 1-8 November 1969.

²⁹³ See p. 202 above, document A/5409, paras. 1077-1090.

²⁹⁴ International Law Association, *Report of the Fifty-first Conference, Tokyo, 1964* (London, 1965), pp. 163-202.

²⁹⁵ *Ibid.*, p. xxx, resolution VIII.

²⁹⁶ International Law Association, *Report of the Fifty-second Conference, Helsinki, 1966* (London, 1967), pp. 478-533.

in 1966; it contained the text of articles as well as comments on each article. The Committee recommended the adoption of the articles by the Conference as "a statement of existing rules of international law".²⁹⁷ As recommended, the articles were adopted by the Conference, which decided that "these rules shall be known as the Helsinki Rules on the Uses of the Waters of International Rivers".²⁹⁸ The text of the Rules is in part as follows:

THE HELSINKI RULES ON THE USES OF THE WATERS OF INTERNATIONAL RIVERS

Chapter I

GENERAL

Article I

The general rules of international law as set forth in these chapters are applicable to the use of the waters on an international drainage basin except as may be provided otherwise by convention, agreement or binding custom among the basin States.

Article II

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

Article III

A "basin State" is a State the territory of which includes a portion of an international drainage basin.

Chapter 2

EQUITABLE UTILIZATION OF THE WATERS OF AN INTERNATIONAL DRAINAGE BASIN

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.

Article V

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

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

(a) the geography of the basin, including in particular the extent of the drainage area in the territory of each basin State;

(b) the hydrology of the basin, including in particular the contribution of water by each basin State;

(c) the climate affecting the basin;

(d) the past utilization of the waters of the basin, including in particular existing utilization;

(e) the economic and social needs of each basin State;

(f) the population dependent on the waters of the basin in each basin State;

(g) the comparative costs of alternative means of satisfying the economic and social needs of each basin State;

(h) the availability of other resources;

(i) the avoidance of unnecessary waste in the utilization of waters of the basin;

(j) the practicability of compensation to one or more of the co-basin States as a means of adjusting conflicts among uses; and

²⁹⁷ *Ibid.*, pp. 482-483.

²⁹⁸ *Ibid.*, p. xi, resolution I.

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

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

Article VI

A use or category of uses is not entitled to any inherent preference over any other use or category of uses.

Article VII

A basin State may not be denied the present reasonable use of the waters of an international drainage basin to reserve for a co-basin State a future use of such waters.

Article VIII

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

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

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

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

Chapter 3

POLLUTION

Article IX

As used in this Chapter, the term "water pollution" refers to any detrimental change resulting from human conduct in the natural composition, content, or quality of the waters of an international drainage basin.

Article X

1. Consistent with the principle of equitable utilization of the waters of an international drainage basin, a State

(a) must prevent any new form of water pollution or any increase in the degree of existing water pollution in an international drainage basin which would cause substantial injury in the territory of a co-basin State, and

(b) should take all reasonable measures to abate existing water pollution in an international drainage basin to such an extent that no substantial damage is caused in the territory of a co-basin State.

2. The rule stated in paragraph 1 of this Article applies to water pollution originating:

(a) within a territory of the State, or

(b) outside the territory of the State, if it is caused by the State's conduct.

Article XI

1. In the case of a violation of the rule stated in paragraph 1(a) of Article X of this Chapter, the State responsible shall be required to cease the wrongful conduct and compensate the injured co-basin State for the injury that has been caused to it.

2. In a case falling under the rule stated in paragraph 1(b) of Article X, if a State fails to take reasonable measures, it shall be required promptly to enter into negotiations with the injured State with a view toward reaching a settlement equitable under the circumstances.

Chapter 4

NAVIGATION

...

Chapter 5

TIMBER FLOATING

Article XXI

The floating of timber on a watercourse which flows through or between the territories of two or more States is governed by the following Articles except in cases in which floating is governed by rules of navigation according to applicable law or custom binding upon the riparians.

Article XXII

The States riparian to an international watercourse utilized for navigation may determine by common consent whether and under what conditions timber floating may be permitted upon the watercourse.

Article XXIII

1. It is recommended that each State riparian to an international watercourse not used for navigation should, with due regard to other uses of the watercourse, authorize the co-riparian States to use the watercourse and its banks within the territory of each riparian State for the floating of timber.

2. This authorization should extend to all necessary work along the banks by the floating crew and to the installation of such facilities as may be required for the timber floating.

Article XXIV

If a riparian State requires permanent installation for floating inside a territory of a co-riparian State or if it is necessary to regulate the flow of the watercourse, all questions connected with these installations and measures should be determined by agreement between the States concerned.

Article XXV

Co-riparian States of a watercourse which is, or is to be used for floating timber should negotiate in order to come to an agreement governing the administrative régime of floating, and if necessary to establish a joint agency or commission in order to facilitate the regulation of floating in all aspects.

Chapter 6

PROCEDURES FOR THE PREVENTION AND SETTLEMENT OF DISPUTES

Article XXVI

This Chapter relates to procedures for the prevention and settlement of international disputes as to the legal rights or other interests of basin States and of other States in the waters of an international drainage basin.

Article XXVII

1. Consistently with the Charter of the United Nations, States are under an obligation to settle international disputes as to their legal rights or other interests by peaceful means in such a manner that international peace and security, and justice are not endangered.

2. It is recommended that States resort progressively to the means of prevention and settlement of disputes stipulated in Articles XXIX to XXXIV of this Chapter.

Article XXVIII

1. States are under a primary obligation to resort to means of prevention and settlement of disputes stipulated in the applicable treaties binding upon them.

2. States are limited to the means of prevention and settlement of disputes stipulated in treaties binding upon them only to the extent provided by the applicable treaties.

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 as defined in Article XXVI. The notice should include such essential facts as will permit the recipient to make an assessment of the probable effect of the proposed alteration.

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

4. If a State has failed to give the notice referred to in paragraph 2 of this Article, the alteration by the State in the 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.

Article XXX

In case of a dispute between States as to their legal rights or other interests, as defined in Article XXVI, they should seek a solution by negotiation.

Article XXXI

1. If a question or dispute arises which relates to the present or future utilization of the waters of an international drainage basin, it is recommended that the basin States refer the question or dispute to a joint agency and that they request the agency to survey the international drainage basin and to formulate plans or recommendations for the fullest and most efficient use thereof in the interests of all such States.

2. It is recommended that the joint agency be instructed to submit reports on all matters within its competence to the appropriate authorities of the member States concerned.

3. It is recommended that the member States of the joint agency in appropriate cases invite non-basin States which by treaty enjoy a right in the use of the waters and an international drainage basin to associate themselves with the work of the joint agency or that they be permitted to appear before the agency.

Article XXXII

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

Article XXXIII

1. If the States concerned have not been able to resolve their dispute through negotiation or have been unable to agree on the measures described in Article XXXI and XXXII, it is recommended that they form a commission of inquiry, or an *ad hoc* conciliation commission, which shall endeavour to find a solution, likely to be accepted by the States concerned, of any dispute as to their legal rights.

2. It is recommended that the conciliation commission be constituted in the manner set forth in the Annex.

Article XXXIV

It is recommended that the States concerned agree to submit their legal disputes to an *ad hoc* arbitral tribunal, to a permanent arbitral tribunal or to the International Court of Justice if:

(a) A commission has not been formed as provided in Article XXXIII, or

(b) The commission has not been able to find a solution to be recommended, or

(c) A solution recommended has not been accepted by the States concerned, and

(d) An agreement has not been otherwise arrived at.

Article XXXV

It is recommended that in the event of arbitration the States concerned have recourse to the Model Rules on Arbitral Procedure prepared by the International Law Commission of the United Nations at its tenth session in 1958.

Article XXXVI

Recourse to arbitration implies the undertaking by the States concerned to consider the award to be given as final and to submit in good faith to its execution.

Article XXXVII

The means of settlement referred to in the preceding Articles of this Chapter are without prejudice to the utilization of means of settlement recommended to, or required of, members of regional arrangements or agencies and of other international organizations.²⁹⁹

2. PROGRAMME OF WORK OF THE COMMITTEE ON INTERNATIONAL WATER RESOURCES LAW

406. The Helsinki Conference of the International Law Association, aware of the numerous theoretical and practical problems still awaiting international legal regulation, recommended that the Committee on the Uses of the Waters of International Rivers be reconstituted as a Committee on International Water Resources Law and that the newly constituted Committee be instructed to:

... carry on a programme of codification and study of certain selected aspects of water resources law, of which the following topics are illustrative: underground waters; the relationship of water to other natural resources; domestic uses of water; hydraulic uses of water, including the generation of power and irrigation; flood control siltation; regulation of water flow; detailed rules on the navigation of rivers; and further consideration of the subject of pollution of coastal areas and enclosed seas;...³⁰⁰

One of the reasons why the International Law Association considered the further study of these problems important and necessary lay

in the fact that the International Law Commission of the United Nations, to which the subject of the Law of International Rivers has frequently been suggested for incorporation in its work programme, has not, because of its many other important tasks, been able to give this matter the priority needed.³⁰¹

407. The Committee on International Water Resources Law held two meetings between 1967 and 1968, mainly to analyse relevant problems and to agree upon its programme of work in the future. It created six working groups, the terms of reference for five of which are as follows:

...

2. Working group on Underground Waters

The group shall study and formulate rules and/or recommendations on the development and conservation of ground waters of international concern, including *inter alia*:

²⁹⁹ For the full text of the Helsinki Rules, with comments, see International Law Association, *Report of the Fifty-second Conference* ... (*op. cit.*), pp. 484-532.

³⁰⁰ *Ibid.*, p. xi, resolution I.

³⁰¹ International Law Association, *Report of the Fifty-third Conference, Buenos Aires, 1968* (London, 1969), p. 521.

- (a) use of all kinds of underground waters, including underground streams, reservoirs, basins, etc.;
- (b) interference with, and relation to, surface and atmospheric water and to other natural resources (oils, minerals, etc.);
- (c) storage and charging of underground aquifers;
- (d) pollution of underground waters (including seawater-intrusion and salinization); and
- (e) administration and management.

3. Working group on Pollution of Coastal Areas and Enclosed Seas

The group shall study the pollution of the waters of coastal areas where it may affect the interests of more than one State.

Pollution, actual or potential, of continental origin, should be studied first and that originating on the high seas thereafter.

4. Working group on the Relationship between Water and other Natural Resources

The group shall study and formulate rules and/or recommendations on the optimum use of water-resources in relation to other natural resources (land, atmosphere, mineral deposits, flora and fauna, energy and recreation) taking into account their physical and economic interdependence.

5. Working group on Uses of International Water Resources

The group shall study international water-resources and formulate rules and/or recommendations concerning power-generation, irrigation, flood control, storage and other uses of international water-resources. The working group shall also consider further problems connected with the conflicting interests and the protection against harmful effects of waters.

6. Working group on Management of International Water Resources

The group shall study and formulate rules and/or recommendations with respect to the management of international water-resources, including *inter alia*:

- (a) the setting up of Commissions or other arrangements;
- (b) possible functions, power and composition of such bodies; and
- (c) legal aspects of economic and financial problems arising from such management.³⁰²

408. Each working group, during the meetings it held, focused its attention mainly on the interpretation and elaboration of its own terms of reference and on consideration of the work programme best suited to the accomplishment of the task. The following preliminary statements were reported to the Association's Buenos Aires Conference of 1968:

...

Working group on Underground Waters

The working group will undertake the following tasks, in the order stated:

1. Compilation of a comprehensive bibliography on the topic of the development and use of underground waters, including related materials in the economic, hydrographic and engineering fields. Inasmuch as there are at present few, if any international law rules dealing specifically with the subject of underground waters the substantive contribution the group desires to make must be built on the experience of those national legal orders that have dealt with the matter and must endeavour to comprehend the technical and economic problems involved as well. In this respect the experience of international organizations has proved especially pertinent.

2. Preparation of a collection of the texts, in translation where necessary, of relevant legislation, court cases, administrative regulations and decisions, etc., with appropriate analytical summaries.

3. Determination, after due deliberation, of the most fruitful, ultimate form of the group's substantive work. Under consideration as alternatives are model clauses for a draft treaty, a set of recommended principles and rules, a series of short monographs, an integrated monograph on the entire subject or some combination of these.

4. The systematic accomplishment of the intermediate tasks necessary to development and formal preparation of the product or products decided upon under 3 above.

5. Preparation of the final Report, including discussions in the full Committee.

The following topics, within the field of underground waters, have been explored in a preliminary manner and each has been identified as possessing a significant legal aspect to which the group must devote attention irrespective of the form the group's final product may take. This list is not to be regarded as exhaustive nor is it arranged in any order of priority:

1. Definitions of Underground Waters and related terms;
2. Exploration Rights (including surveys, drilling and testing);
3. Exploitation Rights;
4. Allocation of Shares;
5. Control or Prevention of Overpumping (development *v.* conservation);
6. Protection of Existing Uses (including isolation of aquifers and identification of Special Zones);
7. Relationship to Surface Waters;
8. Pollution Abatement;
9. Priority of Uses (if any);
10. Works Administration (planning, financing, construction, operation and maintenance); and
11. Maximization of Benefits:
 - (a) General International Law Framework.
 - (b) Particular International Underground Waters Occurrences (consultation; data collection and exchange; policy basis, including treaty; uniform legislation and parallel executive organization; and management).

Working group on Pollution of Coastal Areas and Enclosed Seas

1. After a preliminary general discussion, the working group has commenced its work with the study of questions related to pollution of coastal waters originating from continental sources. The conclusion was arrived at that the text of the Helsinki Rules dealing with fresh water pollution could serve for this purpose and that the principles could be maintained although a fair number of modifications would be necessary.

2. Among the problems arising in this respect, mention can be made of the following:

- (a) definition of the waters to which the new rules are to be applied;
- (b) definition of pollution, taking into account pollution originating from continental sources and from sources on the high seas;
- (c) the desirability to enlarge the definition of pollution in order to create an obligation for a State to co-operate with other States to prevent pollution not caused by human conduct; and
- (d) whether, with respect to pollution of the sea, the concept of the Helsinki Rules could be maintained whereby obligations of a State differ with regard to existing and new pollution.

3. A draft set of articles mainly concerning pollution of continental origin has been elaborated for further study and discussion. As to pollution of maritime origin, some consideration has been given to the legal aspects of pollution caused by escape of dangerous or noxious cargoes.

Working group on the Relationship between Water and Other Natural Resources

1. To fulfil its mission, the working group will assemble, compile, and analyse the legal considerations arising from its task from the following documents:

- (a) multilateral international agreements;
- (b) bilateral international treaties;
- (c) interstate compacts and treaties (within federal countries);
- (d) national, provincial and State legislation;
- (e) writings of the publicists; and
- (f) court decisions, national and international.

³⁰² *Ibid.*, pp. 522-523.

2. The documents listed under (b), (c) and (d) should be studied in reference to individual countries. Attention must be drawn to the fact that research should not be limited to Water Laws only but should also cover laws governing the other natural resources as mentioned in the terms of reference in so far as they influence water resources. The legal rules to be found in national and local laws shall be studied for the identification of existing practical problems and as a source of recommendations "*de lege ferenda*".

3. Two classes of priorities can be adopted simultaneously to determine the task of the working group:

- (a) by categories of documents, in the order given above; and
- (b) by the type of natural resources connected with water use.

For this purpose physical relations could be studied in the following order: 1. water/earth; 2. water/flora (forests and pastures); 3. water/atmosphere (and its contents); 4. water/fauna (aquatic, amphibious, terrestrial); 5. water/mineral deposits; 6. water/power resources (mineral, solar, botaeolian, nuclear, etc.); and 7. water/scenic-recreation.

4. The influence of the different physical states of water resources could also be examined from the point of view of legal regulations; meteoric waters (clouds, rain, snowfall, atmospheric vapour)—on surface water; surface water—on underground water; surface water—on meteoric water and *vice versa*.

A document dealing with the physical and economic aspects of the problems, prepared by the Rapporteur of the working group is attached . . .

Working group on General Uses of Water

The working group will undertake to study, within the framework of the Helsinki Rules, problems of international water resources and to formulate guidelines and/or recommendations concerning methods and procedures in the fields of power generation, irrigation, flood control, storage and regulation for water supply, and other uses of international water resources; it will also consider problems connected with conflicting interests and the protection against various harmful effects of waters.

The working group also considers it desirable to formulate general principles on topics which are not yet covered by the Helsinki Rules, for instance, problems connected with treaty interpretation, *ius cogens* and other problems.

The working group will further undertake special studies relating to water resources, for example, the problem of classification of waters particularly taking into account the difference between countries with planned economy as well as public property, and countries with other systems.

Working group on Management of International Waters

The working group will undertake and continue the study of administrative and legal aspects of international waters according to its terms of reference, starting from the Helsinki Rules as well as from the work of the International Rivers Committee. It will later on take into consideration the specific recommendations with respect to administration of the other working groups in its study.

The working group will also undertake the study of some, if not all, of the legal aspects connected with the management of international waters on the basis of the following working scheme:

1. Obligation (if any) to establish international administration.

A question which arises is to see whether, under general principles of international law, State practice and judicial (international) decisions and awards, co-basin States are under a duty, if any, to establish joint agencies, international administration or other administrative arrangements, either on a universal basis or on a regional basis, to perform different functions.

2. Functions of international management.

Parallel with the study of point 1 above, the working group will consider the functions that any international body could be called upon to perform. These may be sub-divided tentatively into three categories, namely:

(a) for the *exchange of data*, consultation, and communication of projects, and procedures for notification thereof, as well as for the

presentation of objections and obligation (if any) to be considered by another co-basin State;

(b) for the *planning* on a joint and/or separate basis of the various water resources projects, taking into consideration the integrated development by river basins;

(c) for the *construction* on a joint and/or separate basis of the required works either on the main international stream or on its national tributaries or distributaries;

(d) for the joint and/or separate *operation and maintenance* of the construction works located on an international mainstream and/or on its national tributaries or distributaries;

(e) for the *control of one or more beneficial uses* of water (domestic, agricultural, hydro-power production, industrial, navigation, transportation, floating, fishing, etc.) and one or more harmful effects of water (soil erosion, floods, salinization, waterlogging, health hazards, pollution, etc.); and

(f) for the *area of management*: a whole river basin, a part thereof or only a single project, as component of a larger scheme.

3. Powers of international management.

The study should consider the various powers that any international management might possess. According to State practice, these might come under any of the following categories: political, executive, legislative and judicial.

4. Composition of international management.

The composition of any management of international water could depend upon the functions and powers that might be entrusted to it. Such composition may, therefore, include high level political representatives of the co-basin States, technicians and economists, lawyers, etc., or most or all of them at different levels.

5. Economic and financial problems of international management.

The legal considerations to be studied under this item would include those relating to the following aspects:

(a) sharing of expenses in organizing international management between co-basin States and determination of each co-basin State's share in such financing; factors affecting such determination;

(b) promotion and development of joint financial participation for the construction, operation and maintenance of the projects; sharing of costs and legal basis for the economic evaluation and justification of projects as well as procedures thereto;

(c) form or forms of such joint financial participation and policies; Government's direct or indirect contributions, international financing, powers to float boards and obligations, national or international companies, etc.; and

(d) *reimbursement policies*: these include the determination of factors affecting the reimbursement of costs and the sharing of benefits accruing to co-basin States from jointly undertaken projects, as well as procedures for the assessment of water rates and fees, their collection and sharing among the beneficiary co-basin States.

6. Other questions of international management.

As a consequence of international management of water, many other questions may arise for which legal principles could be evolved. Some of them are outlined here below:

(a) constitutional requirements of co-basin States to accept the binding force of the decisions of international management;

(b) national water legislation of the co-basin States with respect to the use of water under international management;

(c) staffing problems and legal means to facilitate them; and

(d) any other questions to be considered or arising from the study of the working group.³⁰³

3. DRAFT ARTICLES ON FLOOD CONTROL, APPROVED BY THE INTERNATIONAL LAW ASSOCIATION AT ITS FIFTY-FIFTH CONFERENCE HELD IN NEW YORK IN 1972

409. At its meetings held in Montreal in 1971 and Stockholm in 1972, the Committee on International Water

³⁰³ *Ibid.*, pp. 524-530.

Resources Law dealt mainly with flood control and marine pollution of continental origin. At the Stockholm meeting, the Committee adopted draft articles on both items,³⁰⁴ which were approved by the International Law Association at its fifty-fifth Conference held in New York in 1972. The text of the draft articles on flood control reads as follows:

Article 1

In the context of the following Articles,

1. "Floods" means the rising of water levels which would have detrimental effects on life and property in co-basin States.
2. "Flood control" means the taking of all appropriate steps to protect land areas from floods or to minimize damage therefrom.

Article 2

Basin States shall co-operate in measures of flood control in a spirit of good neighbourliness, having due regard to their interests and well-being as co-basin States.

Article 3

Co-operation with respect to flood control may, by agreement between basin States, include among others:

- (a) collection and exchange of relevant data;
- (b) preparation of surveys, investigations and studies and their mutual exchange;
- (c) planning and designing of relevant measures;
- (d) execution of flood control measures;
- (e) operation and maintenance of works;
- (f) flood forecasting and communication of flood warnings;
- (g) setting up of a regular information service charged to transmit the height of water levels and the discharge quantities.

Article 4

1. Basin States should communicate amongst themselves as soon as possible on any occasion such as heavy rainfalls, sudden melting of

³⁰⁴ For the text of the draft articles on flood control and the draft articles on marine pollution of continental origin, together with the commentaries, see the report of the Committee on International Water Resources Law (International Law Association, *Report of the Fifty-fifth Conference, New York, 1972* (London, 1973), pp. 40-106). The Committee is now preparing drafts on "Protection of Water Resources and Water Installations in Times of International Conflicts" and "Management and Administration of International Water-courses".

snow or other events likely to create floods and of dangerous rises of water levels in their territory.

2. Basin States should set up an effective system of transmission in order to fulfil the provisions contained in para. 1, and should ensure priority to the communication of flood warnings in emergency cases. If necessary a special system of translation should be built up between the basin States.

Article 5

1. The use of the channel of rivers and lakes for the discharge of excess waters shall be free and not subject to any limitation provided this is not incompatible with the object of flood control.
2. Basin States should maintain in good order their portions of water courses including works for flood control.
3. No basin State shall be prevented from undertaking schemes of drainage, river draining, conservation of soil against erosion and dredging, or from removal of stones, gravel or sand from the beds of its portions of water-courses provided that, in executing any of these schemes, it avoids any unreasonable interference with the object of flood control, and provided that such schemes are not contrary to any legal restrictions which may exist otherwise.
4. Basin States should ensure the prompt execution of repairs or other emergency measures for minimization of damage by flooding during periods of high waters.

Article 6

1. Expenses for collection and exchange of relevant data, for preparation of surveys, investigations and studies, for flood forecasting and communication of flood warnings, as well as for the setting-up of a regular information service shall be borne jointly by the basin States co-operating in such matters.
2. Expenses for special works undertaken by agreement in the territory of one basin State at the request of another basin State shall be borne by the requesting State, unless the cost is distributed otherwise under the agreement.

Article 7

A basin State is not liable to pay compensation for damage caused to another basin State by floods originating in that basin State unless it has acted contrary to what could be reasonably expected under the circumstances, and unless the damage caused is substantial.

Article 8

In case of dispute, articles XXX to XXXVII of the Helsinki rules are, so far as may be, applicable.

ANNEX

Bibliography and documentation

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2. SELECTED DOCUMENTS ISSUED UNDER THE AUSPICES OF THE UNITED NATIONS

Symbol	Title	Observations and references
A/CONF.48/14/Rev.1	<i>Report of the United Nations Conference on the Human Environment Stockholm, 5-16 June 1972</i>	United Nations publication, Sales No. E.73.II.A.14
E/3066/Rev.1	<i>Integrated river basin development</i>	United Nations publication, Sales No. 70.II.A.4
E/3760	Proposals for a priority programme of co-ordination in the field of water resources within the framework of the United Nations Development Decade	<i>Official Records of the Economic and Social Council, Thirty-sixth Session, Annexes, agenda item 6</i>
E/3881	Water Resources Development Centre—Third biennial report	<i>Ibid.</i> , <i>Thirty-seventh Session, Supplement No. 13</i>
E/4138	Fourth biennial report on water resources development	<i>Ibid.</i> , <i>Fortieth Session, Supplement No. 3</i>
E/4447	Fifth biennial report on water resources development	<i>Ibid.</i> , <i>Forty-fourth Session, Supplement No. 3</i>
E/C.7/2	Committee on Natural Resources: Natural resources problems and issues—a general review: Note by the Secretary-General	Mimeographed
E/C.7/8 (Part I) and E/C.7/8 (Part II)	<i>Idem.</i> Recent activities of the Resources and Transport Division in natural resources development: report of the Secretary-General	Mimeographed
E/C.7/9	<i>Idem.</i> Triennial report on water resources development, 1968-1970	Mimeographed

Symbol	Title	Observations and references
E/C.7/10	<i>Idem.</i> Future activities of the United Nations—Plans for the future non-operational activities of the Resources and Transport Division: note by the Secretary-General (section V, "Water resources")	Mimeographed
E/C.7/16 and Corr.1 and Add.1	<i>Idem.</i> Activities of the organizations of the United Nations system related to natural resources	Mimeographed
E/C.7/23 and Add.1	<i>Idem.</i> United Nations Water Conference: note by the Secretary-General	Mimeographed
E/C.7/31	<i>Idem.</i> Developments in the field of natural resources—Water, Energy, Minerals—United Nations Water Conference: report of the Intergovernmental Panel of specialists [on the United Nations Water Conference]	Mimeographed
ST/ECA/154	<i>Abstraction and Use of Water: a Comparison of Legal Régimes</i>	United Nations publication, Sales No. E.72.II.A.10
ST/ECAFE/SER.F/29	<i>A compendium of major international rivers in the ECAFE region</i>	United Nations publication, Sales No. 66.II.F.8
ST/ECAFE/SER.F/31	<i>Water legislation in Asia and the Far East, Part 1</i>	United Nations publication, Sales No. 67.II.F.11
ST/ECAFE/SER.F/35	<i>Water legislation in Asia and the Far East, Part 2</i>	United Nations publication, Sales No. E.69.II.F.6
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