

CONVENTION ON THE PROTECTION AND USE  
OF TRANSBOUNDARY WATERCOURSES AND INTERNATIONAL LAKES

done at Helsinki, on 17 March 1992

PREAMBLE

The Parties to this Convention,

Mindful that the protection and use of transboundary watercourses and international lakes are important and urgent tasks, the effective accomplishment of which can only be ensured by enhanced cooperation,

Concerned over the existence and threats of adverse effects, in the short or long term, of changes in the conditions of transboundary watercourses and international lakes on the environment, economies and well-being of the member countries of the Economic Commission for Europe (ECE),

Emphasizing the need for strengthened national and international measures to prevent, control and reduce the release of hazardous substances into the aquatic environment and to abate eutrophication and acidification, as well as pollution of the marine environment, in particular coastal areas, from land-based sources,

Commending the efforts already undertaken by the ECE Governments to strengthen cooperation, on bilateral and multilateral levels, for the prevention, control and reduction of transboundary pollution, sustainable water management, conservation of water resources and environmental protection,

Recalling the pertinent provisions and principles of the Declaration of the Stockholm Conference on the Human Environment, the Final Act of the Conference on Security and Cooperation in Europe (CSCE), the Concluding Documents of the Madrid and Vienna Meetings of Representatives of the Participating States of the CSCE, and the Regional Strategy for Environmental Protection and Rational Use of Natural Resources in ECE Member Countries covering the Period up to the Year 2000 and Beyond,

Conscious of the role of the United Nations Economic Commission for Europe in promoting international cooperation for the prevention, control and reduction of transboundary water pollution and sustainable use of transboundary waters, and in this regard recalling the ECE Declaration of Policy on Prevention and Control of Water Pollution, including Transboundary Pollution; the ECE Declaration of Policy on the Rational Use of Water; the ECE Principles Regarding Cooperation in the Field of Transboundary Waters; the ECE Charter on Groundwater Management; and the Code of Conduct on Accidental Pollution of Transboundary Inland Waters,

Referring to decisions I (42) and I (44) adopted by the Economic Commission for Europe at its forty-second and forty-fourth sessions, respectively, and the outcome of the CSCE Meeting on the Protection of the Environment (Sofia, Bulgaria, 16 October - 3 November 1989),

Emphasizing that cooperation between member countries in regard to the protection and use of transboundary waters shall be implemented primarily through the elaboration of agreements between countries bordering the same waters, especially where no such agreements have yet been reached,

Have agreed as follows:

## Article 1

### DEFINITIONS

For the purposes of this Convention,

1. "Transboundary waters" means any surface or ground waters which mark, cross or are located on boundaries between two or more States; wherever transboundary waters flow directly into the sea, these transboundary waters end at a straight line across their respective mouths between points on the low-water line of their banks;

2. "Transboundary impact" means any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party, within an area under the jurisdiction of another Party. Such effects on the environment include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; they also include effects on the cultural heritage or socio-economic conditions resulting from alterations to those factors;

3. "Party" means, unless the text otherwise indicates, a Contracting Party to this Convention;

4. "Riparian Parties" means the Parties bordering the same transboundary waters;

5. "Joint body" means any bilateral or multilateral commission or other appropriate institutional arrangements for cooperation between the Riparian Parties;

6. "Hazardous substances" means substances which are toxic, carcinogenic, mutagenic, teratogenic or bio-accumulative, especially when they are persistent;

7. "Best available technology" (the definition is contained in annex I to this Convention).

## PART I

### PROVISIONS RELATING TO ALL PARTIES

## Article 2

### GENERAL PROVISIONS

1. The Parties shall take all appropriate measures to prevent, control and reduce any transboundary impact.

2. The Parties shall, in particular, take all appropriate measures:

(a) To prevent, control and reduce pollution of waters causing or likely to cause transboundary impact;

(b) To ensure that transboundary waters are used with the aim of ecologically sound and rational water management, conservation of water resources and environmental protection;

(c) To ensure that transboundary waters are used in a reasonable and equitable way, taking into particular account their transboundary character, in the case of activities which cause or are likely to cause transboundary impact;

(d) To ensure conservation and, where necessary, restoration of ecosystems.

3. Measures for the prevention, control and reduction of water pollution shall be taken, where possible, at source.

4. These measures shall not directly or indirectly result in a transfer of pollution to other parts of the environment.

5. In taking the measures referred to in paragraphs 1 and 2 of this article, the Parties shall be guided by the following principles:

(a) The precautionary principle, by virtue of which action to avoid the potential transboundary impact of the release of hazardous substances shall not be postponed on the ground that scientific research has not fully proved a causal link between those substances, on the one hand, and the potential transboundary impact, on the other hand;

(b) The polluter-pays principle, by virtue of which costs of pollution prevention, control and reduction measures shall be borne by the polluter;

(c) Water resources shall be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs.

6. The Riparian Parties shall cooperate on the basis of equality and reciprocity, in particular through bilateral and multilateral agreements, in order to develop harmonized policies, programmes and strategies covering the relevant catchment areas, or parts thereof, aimed at the prevention, control and reduction of transboundary impact and aimed at the protection of the environment of transboundary waters or the environment influenced by such waters, including the marine environment.

7. The application of this Convention shall not lead to the deterioration of environmental conditions nor lead to increased transboundary impact.

8. The provisions of this Convention shall not affect the right of Parties individually or jointly to adopt and implement more stringent measures than those set down in this Convention.

### Article 3

## PREVENTION, CONTROL AND REDUCTION

1. To prevent, control and reduce transboundary impact, the Parties shall develop, adopt, implement and, as far as possible, render compatible relevant legal, administrative, economic, financial and technical measures, in order to ensure, inter alia, that:

(a) The emission of pollutants is prevented, controlled and reduced at source through the application of, inter alia, low- and non-waste technology;

(b) Transboundary waters are protected against pollution from point sources through the prior licensing of waste-water discharges by the competent national authorities, and that the authorized discharges are monitored and controlled;

(c) Limits for waste-water discharges stated in permits are based on the best available technology for discharges of hazardous substances;

(d) Stricter requirements, even leading to prohibition in individual cases, are imposed when the quality of the receiving water or the ecosystem so requires;

(e) At least biological treatment or equivalent processes are applied to municipal waste water, where necessary in a step-by-step approach;

(f) Appropriate measures are taken, such as the application of the best available technology, in order to reduce nutrient inputs from industrial and municipal sources;

(g) Appropriate measures and best environmental practices are developed and implemented for the reduction of inputs of nutrients and hazardous substances from diffuse sources, especially where the main sources are from agriculture (guidelines for developing best environmental practices are given in annex II to this Convention);

(h) Environmental impact assessment and other means of assessment are applied;

(i) Sustainable water-resources management, including the application of the ecosystems approach, is promoted;

(j) Contingency planning is developed;

(k) Additional specific measures are taken to prevent the pollution of groundwaters;

(l) The risk of accidental pollution is minimized.

2. To this end, each Party shall set emission limits for discharges from point sources into surface waters based on the best available technology, which are specifically applicable to individual industrial sectors or industries from which hazardous substances derive. The appropriate measures mentioned in paragraph 1 of this article to prevent, control and reduce the input of hazardous substances from point and diffuse sources into waters, may, inter alia, include total or partial prohibition of the production or use of such substances. Existing lists of such industrial sectors or industries and of such hazardous substances in international conventions or regulations, which are applicable in the area covered by this Convention, shall be taken into account.

3. In addition, each Party shall define, where appropriate, water-quality objectives and adopt water-quality criteria for the purpose of preventing, controlling and reducing transboundary impact. General guidance for developing such objectives and criteria is given in annex III to this Convention. When necessary, the Parties shall endeavour to update this annex.



#### Article 4

### MONITORING

The Parties shall establish programmes for monitoring the conditions of transboundary waters.

#### Article 5

### RESEARCH AND DEVELOPMENT

The Parties shall cooperate in the conduct of research into and development of effective techniques for the prevention, control and reduction of transboundary impact. To this effect, the Parties shall, on a bilateral and/or multilateral basis, taking into account research activities pursued in relevant international forums, endeavour to initiate or intensify specific research programmes, where necessary, aimed, inter alia, at:

- (a) Methods for the assessment of the toxicity of hazardous substances and the noxiousness of pollutants;
- (b) Improved knowledge on the occurrence, distribution and environmental effects of pollutants and the processes involved;
- (c) The development and application of environmentally sound technologies, production and consumption patterns;
- (d) The phasing out and/or substitution of substances likely to have transboundary impact;
- (e) Environmentally sound methods of disposal of hazardous substances;
- (f) Special methods for improving the conditions of transboundary waters;
- (g) The development of environmentally sound water-construction works and water-regulation techniques;
- (h) The physical and financial assessment of damage resulting from transboundary impact.

The results of these research programmes shall be exchanged among the Parties in accordance with article 6 of this Convention.

#### Article 6

### EXCHANGE OF INFORMATION

The Parties shall provide for the widest exchange of information, as early as possible, on issues covered by the provisions of this Convention.

Article 7

RESPONSIBILITY AND LIABILITY

The Parties shall support appropriate international efforts to elaborate rules, criteria and procedures in the field of responsibility and liability.

## Article 8

### PROTECTION OF INFORMATION

The provisions of this Convention shall not affect the rights or the obligations of Parties in accordance with their national legal systems and applicable supranational regulations to protect information related to industrial and commercial secrecy, including intellectual property, or national security.

## PART II

### PROVISIONS RELATING TO RIPARIAN PARTIES

## Article 9

### BILATERAL AND MULTILATERAL COOPERATION

1. The Riparian Parties shall on the basis of equality and reciprocity enter into bilateral or multilateral agreements or other arrangements, where these do not yet exist, or adapt existing ones, where necessary to eliminate the contradictions with the basic principles of this Convention, in order to define their mutual relations and conduct regarding the prevention, control and reduction of transboundary impact. The Riparian Parties shall specify the catchment area, or part(s) thereof, subject to cooperation. These agreements or arrangements shall embrace relevant issues covered by this Convention, as well as any other issues on which the Riparian Parties may deem it necessary to cooperate.
2. The agreements or arrangements mentioned in paragraph 1 of this article shall provide for the establishment of joint bodies. The tasks of these joint bodies shall be, inter alia, and without prejudice to relevant existing agreements or arrangements, the following:
  - (a) To collect, compile and evaluate data in order to identify pollution sources likely to cause transboundary impact;
  - (b) To elaborate joint monitoring programmes concerning water quality and quantity;
  - (c) To draw up inventories and exchange information on the pollution sources mentioned in paragraph 2 (a) of this article;
  - (d) To elaborate emission limits for waste water and evaluate the effectiveness of control programmes;
  - (e) To elaborate joint water-quality objectives and criteria having regard to the provisions of article 3, paragraph 3 of this Convention, and to propose relevant measures for maintaining and, where necessary, improving the existing water quality;

(f) To develop concerted action programmes for the reduction of pollution loads from both point sources (e.g. municipal and industrial sources) and diffuse sources (particularly from agriculture);

(g) To establish warning and alarm procedures;

(h) To serve as a forum for the exchange of information on existing and planned uses of water and related installations that are likely to cause transboundary impact;

(i) To promote cooperation and exchange of information on the best available technology in accordance with the provisions of article 13 of this Convention, as well as to encourage cooperation in scientific research programmes;

(j) To participate in the implementation of environmental impact assessments relating to transboundary waters, in accordance with appropriate international regulations.

3. In cases where a coastal State, being Party to this Convention, is directly and significantly affected by transboundary impact, the Riparian Parties can, if they all so agree, invite that coastal State to be involved in an appropriate manner in the activities of multilateral joint bodies established by Parties riparian to such transboundary waters.

4. Joint bodies according to this Convention shall invite joint bodies, established by coastal States for the protection of the marine environment directly affected by transboundary impact, to cooperate in order to harmonize their work and to prevent, control and reduce the transboundary impact.

5. Where two or more joint bodies exist in the same catchment area, they shall endeavour to coordinate their activities in order to strengthen the prevention, control and reduction of transboundary impact within that catchment area.

#### Article 10

### CONSULTATIONS

Consultations shall be held between the Riparian Parties on the basis of reciprocity, good faith and good-neighbourliness, at the request of any such Party. Such consultations shall aim at cooperation regarding the issues covered by the provisions of this Convention. Any such consultations shall be conducted through a joint body established under article 9 of this Convention, where one exists.

#### Article 11

### JOINT MONITORING AND ASSESSMENT

1. In the framework of general cooperation mentioned in article 9 of this Convention, or specific arrangements, the Riparian Parties shall establish and implement joint programmes for monitoring the conditions of transboundary waters, including floods and ice drifts, as well as transboundary impact.

2. The Riparian Parties shall agree upon pollution parameters and pollutants whose discharges and concentration in transboundary waters shall be regularly monitored.

3. The Riparian Parties shall, at regular intervals, carry out joint or coordinated assessments of the conditions of transboundary waters and the effectiveness of measures taken for the prevention, control and reduction of transboundary impact. The results of these assessments shall be made available to the public in accordance with the provisions set out in article 16 of this Convention.

4. For these purposes, the Riparian Parties shall harmonize rules for the setting up and operation of monitoring programmes, measurement systems, devices, analytical techniques, data processing and evaluation procedures, and methods for the registration of pollutants discharged.

#### Article 12

### COMMON RESEARCH AND DEVELOPMENT

In the framework of general cooperation mentioned in article 9 of this Convention, or specific arrangements, the Riparian Parties shall undertake specific research and development activities in support of achieving and maintaining the water-quality objectives and criteria which they have agreed to set and adopt.

#### Article 13

### EXCHANGE OF INFORMATION BETWEEN RIPARIAN PARTIES

1. The Riparian Parties shall, within the framework of relevant agreements or other arrangements according to article 9 of this Convention, exchange reasonably available data, inter alia, on:

- (a) Environmental conditions of transboundary waters;
- (b) Experience gained in the application and operation of best available technology and results of research and development;
- (c) Emission and monitoring data;
- (d) Measures taken and planned to be taken to prevent, control and reduce transboundary impact;
- (e) Permits or regulations for waste-water discharges issued by the competent authority or appropriate body.

2. In order to harmonize emission limits, the Riparian Parties shall undertake the exchange of information on their national regulations.

3. If a Riparian Party is requested by another Riparian Party to provide data or information that is not available, the former shall endeavour to comply with the request but may condition its compliance upon the payment, by the requesting Party, of reasonable charges for collecting and, where appropriate, processing such data or information.

4. For the purposes of the implementation of this Convention, the Riparian Parties shall facilitate the exchange of best available technology, particularly through the promotion of: the

commercial exchange of available technology; direct industrial contacts and cooperation, including joint ventures; the exchange of information and experience; and the provision of technical assistance. The Riparian Parties shall also undertake joint training programmes and the organization of relevant seminars and meetings.

#### Article 14

#### WARNING AND ALARM SYSTEMS

The Riparian Parties shall without delay inform each other about any critical situation that may have transboundary impact. The Riparian Parties



shall set up, where appropriate, and operate coordinated or joint communication, warning and alarm systems with the aim of obtaining and transmitting information. These systems shall operate on the basis of compatible data transmission and treatment procedures and facilities to be agreed upon by the Riparian Parties. The Riparian Parties shall inform each other about competent authorities or points of contact designated for this purpose.

#### Article 15

##### MUTUAL ASSISTANCE

1. If a critical situation should arise, the Riparian Parties shall provide mutual assistance upon request, following procedures to be established in accordance with paragraph 2 of this article.
2. The Riparian Parties shall elaborate and agree upon procedures for mutual assistance addressing, inter alia, the following issues:
  - (a) The direction, control, coordination and supervision of assistance;
  - (b) Local facilities and services to be rendered by the Party requesting assistance, including, where necessary, the facilitation of border-crossing formalities;
  - (c) Arrangements for holding harmless, indemnifying and/or compensating the assisting Party and/or its personnel, as well as for transit through territories of third Parties, where necessary;
  - (d) Methods of reimbursing assistance services.

#### Article 16

##### PUBLIC INFORMATION

1. The Riparian Parties shall ensure that information on the conditions of transboundary waters, measures taken or planned to be taken to prevent, control and reduce transboundary impact, and the effectiveness of those measures, is made available to the public. For this purpose, the Riparian Parties shall ensure that the following information is made available to the public:
  - (a) Water-quality objectives;
  - (b) Permits issued and the conditions required to be met;
  - (c) Results of water and effluent sampling carried out for the purposes of monitoring and assessment, as well as results of checking compliance with the water-quality objectives or the permit conditions.

2. The Riparian Parties shall ensure that this information shall be available to the public at all reasonable times for inspection free of charge, and shall provide members of the public with reasonable facilities for obtaining from the Riparian Parties, on payment of reasonable charges, copies of such information.

## PART III

### INSTITUTIONAL AND FINAL PROVISIONS

#### Article 17

##### MEETING OF PARTIES

1. The first meeting of the Parties shall be convened no later than one year after the date of the entry into force of this Convention. Thereafter, ordinary meetings shall be held every three years, or at shorter intervals as laid down in the rules of procedure. The Parties shall hold an extraordinary meeting if they so decide in the course of an ordinary meeting or at the written request of any Party, provided that, within six months of it being communicated to all Parties, the said request is supported by at least one third of the Parties.

2. At their meetings, the Parties shall keep under continuous review the implementation of this Convention, and, with this purpose in mind, shall:

(a) Review the policies for and methodological approaches to the protection and use of transboundary waters of the Parties with a view to further improving the protection and use of transboundary waters;

(b) Exchange information regarding experience gained in concluding and implementing bilateral and multilateral agreements or other arrangements regarding the protection and use of transboundary waters to which one or more of the Parties are party;

(c) Seek, where appropriate, the services of relevant ECE bodies as well as other competent international bodies and specific committees in all aspects pertinent to the achievement of the purposes of this Convention;

(d) At their first meeting, consider and by consensus adopt rules of procedure for their meetings;

(e) Consider and adopt proposals for amendments to this Convention;

(f) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention.

#### Article 18

##### RIGHT TO VOTE

1. Except as provided for in paragraph 2 of this article, each Party to this Convention shall have one vote.

2. Regional economic integration organizations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States which are Parties to this Convention. Such organizations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

## Article 19

### SECRETARIAT

The Executive Secretary of the Economic Commission for Europe shall carry out the following secretariat functions:

- (a) The convening and preparing of meetings of the Parties;
- (b) The transmission to the Parties of reports and other information received in accordance with the provisions of this Convention;
- (c) The performance of such other functions as may be determined by the Parties.

## Article 20

### ANNEXES

Annexes to this Convention shall constitute an integral part thereof.

## Article 21

### AMENDMENTS TO THE CONVENTION

1. Any Party may propose amendments to this Convention.
2. Proposals for amendments to this Convention shall be considered at a meeting of the Parties.
3. The text of any proposed amendment to this Convention shall be submitted in writing to the Executive Secretary of the Economic Commission for Europe, who shall communicate it to all Parties at least ninety days before the meeting at which it is proposed for adoption.
4. An amendment to the present Convention shall be adopted by consensus of the representatives of the Parties to this Convention present at a meeting of the Parties, and shall enter into force for the Parties to the Convention which have accepted it on the ninetieth day after the date on which two thirds of those Parties have deposited with the Depositary their instruments of acceptance of the amendment. The amendment shall enter into force for any other Party on the ninetieth day after the date on which that Party deposits its instrument of acceptance of the amendment.

## Article 22

### SETTLEMENT OF DISPUTES

1. If a dispute arises between two or more Parties about the interpretation or application of this Convention, they shall seek a solution by negotiation or by any other means of dispute settlement acceptable to the parties to the dispute.
  
2. When signing, ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a Party may declare in writing to the Depositary that, for a dispute not resolved in accordance with paragraph 1 of

this article, it accepts one or both of the following means of dispute settlement as compulsory in relation to any Party accepting the same obligation:

- (a) Submission of the dispute to the International Court of Justice;
- (b) Arbitration in accordance with the procedure set out in annex IV.

3. If the parties to the dispute have accepted both means of dispute settlement referred to in paragraph 2 of this article, the dispute may be submitted only to the International Court of Justice, unless the parties agree otherwise.

### Article 23

#### SIGNATURE

This Convention shall be open for signature at Helsinki from 17 to 18 March 1992 inclusive, and thereafter at United Nations Headquarters in New York until 18 September 1992, by States members of the Economic Commission for Europe as well as States having consultative status with the Economic Commission for Europe pursuant to paragraph 8 of Economic and Social Council resolution 36 (IV) of 28 March 1947, and by regional economic integration organizations constituted by sovereign States members of the Economic Commission for Europe to which their member States have transferred competence over matters governed by this Convention, including the competence to enter into treaties in respect of these matters.

### Article 24

#### DEPOSITARY

The Secretary-General of the United Nations shall act as the Depositary of this Convention.

### Article 25

#### RATIFICATION, ACCEPTANCE, APPROVAL AND ACCESSION

1. This Convention shall be subject to ratification, acceptance or approval by signatory States and regional economic integration organizations.
2. This Convention shall be open for accession by the States and organizations referred to in article 23.
3. Any organization referred to in article 23 which becomes a Party to this Convention without any of its member States being a Party shall be bound by all the obligations under this Convention. In the case of such organizations, one or more of whose member States is a Party

to this Convention, the organization and its member States shall decide on their respective responsibilities for the performance of their obligations under this Convention. In such cases, the organization and the member States shall not be entitled to exercise rights under this Convention concurrently.

4. In their instruments of ratification, acceptance, approval or accession, the regional economic integration organizations referred to in article 23 shall declare the extent of their competence with respect to the matters governed by this Convention. These organizations shall also inform the Depositary of any substantial modification to the extent of their competence.



## Article 26

### ENTRY INTO FORCE

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the sixteenth instrument of ratification, acceptance, approval or accession.
2. For the purposes of paragraph 1 of this article, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by States members of such an organization.
3. For each State or organization referred to in article 23 which ratifies, accepts or approves this Convention or accedes thereto after the deposit of the sixteenth instrument of ratification, acceptance, approval or accession, the Convention shall enter into force on the ninetieth day after the date of deposit by such State or organization of its instrument of ratification, acceptance, approval or accession.

## Article 27

### WITHDRAWAL

At any time after three years from the date on which this Convention has come into force with respect to a Party, that Party may withdraw from the Convention by giving written notification to the Depositary. Any such withdrawal shall take effect on the ninetieth day after the date of its receipt by the Depositary.

## Article 28

### AUTHENTIC TEXTS

The original of this Convention, of which the English, French and Russian texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

IN WITNESS WHEREOF the undersigned, being duly authorized thereto, have signed this Convention.

DONE at Helsinki, this seventeenth day of March one thousand nine hundred and ninety-two.

## ANNEX I

### DEFINITION OF THE TERM "BEST AVAILABLE TECHNOLOGY"

1. The term "best available technology" is taken to mean the latest stage of development of processes, facilities or methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available technology in general or individual cases, special consideration is given to:

- (a) Comparable processes, facilities or methods of operation which have recently been successfully tried out;
- (b) Technological advances and changes in scientific knowledge and understanding;
- (c) The economic feasibility of such technology;
- (d) Time limits for installation in both new and existing plants;
- (e) The nature and volume of the discharges and effluents concerned;
- (f) Low- and non-waste technology.

2. It therefore follows that what is "best available technology" for a particular process will change with time in the light of technological advances, economic and social factors, as well as in the light of changes in scientific knowledge and understanding.

## ANNEX II

### GUIDELINES FOR DEVELOPING BEST ENVIRONMENTAL PRACTICES

1. In selecting for individual cases the most appropriate combination of measures which may constitute the best environmental practice, the following graduated range of measures should be considered:

(a) Provision of information and education to the public and to users about the environmental consequences of the choice of particular activities and products, their use and ultimate disposal;

(b) The development and application of codes of good environmental practice which cover all aspects of the product's life;

(c) Labels informing users of environmental risks related to a product, its use and ultimate disposal;

(d) Collection and disposal systems available to the public;

(e) Recycling, recovery and reuse;

(f) Application of economic instruments to activities, products or groups of products;

(g) A system of licensing, which involves a range of restrictions or a ban.

2. In determining what combination of measures constitute best environmental practices, in general or in individual cases, particular consideration should be given to:

(a) The environmental hazard of:

(i) The product;

(ii) The product's production;

(iii) The product's use;

(iv) The product's ultimate disposal;

(b) Substitution by less polluting processes or substances;

(c) Scale of use;

(d) Potential environmental benefit or penalty of substitute materials or activities;

(e) Advances and changes in scientific knowledge and understanding;

- (f) Time limits for implementation;
- (g) Social and economic implications.

3. It therefore follows that best environmental practices for a particular source will change with time in the light of technological advances, economic and social factors, as well as in the light of changes in scientific knowledge and understanding.

### ANNEX III

#### GUIDELINES FOR DEVELOPING WATER-QUALITY OBJECTIVES AND CRITERIA

Water-quality objectives and criteria shall:

- (a) Take into account the aim of maintaining and, where necessary, improving the existing water quality;
- (b) Aim at the reduction of average pollution loads (in particular hazardous substances) to a certain degree within a certain period of time;
- (c) Take into account specific water-quality requirements (raw water for drinking-water purposes, irrigation, etc.);
- (d) Take into account specific requirements regarding sensitive and specially protected waters and their environment, e.g. lakes and groundwater resources;
- (e) Be based on the application of ecological classification methods and chemical indices for the medium- and long-term review of water-quality maintenance and improvement;
- (f) Take into account the degree to which objectives are reached and the additional protective measures, based on emission limits, which may be required in individual cases.

## ANNEX IV

### ARBITRATION

1. In the event of a dispute being submitted for arbitration pursuant to article 22, paragraph 2 of this Convention, a party or parties shall notify the secretariat of the subject-matter of arbitration and indicate, in particular, the articles of this Convention whose interpretation or application is at issue. The secretariat shall forward the information received to all Parties to this Convention.
2. The arbitral tribunal shall consist of three members. Both the claimant party or parties and the other party or parties to the dispute shall appoint an arbitrator, and the two arbitrators so appointed shall designate by common agreement the third arbitrator, who shall be the president of the arbitral tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his or her usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.
3. If the president of the arbitral tribunal has not been designated within two months of the appointment of the second arbitrator, the Executive Secretary of the Economic Commission for Europe shall, at the request of either party to the dispute, designate the president within a further two-month period.
4. If one of the parties to the dispute does not appoint an arbitrator within two months of the receipt of the request, the other party may so inform the Executive Secretary of the Economic Commission for Europe, who shall designate the president of the arbitral tribunal within a further two-month period. Upon designation, the president of the arbitral tribunal shall request the party which has not appointed an arbitrator to do so within two months. If it fails to do so within that period, the president shall so inform the Executive Secretary of the Economic Commission for Europe, who shall make this appointment within a further two-month period.
5. The arbitral tribunal shall render its decision in accordance with international law and the provisions of this Convention.
6. Any arbitral tribunal constituted under the provisions set out in this annex shall draw up its own rules of procedure.
7. The decisions of the arbitral tribunal, both on procedure and on substance, shall be taken by majority vote of its members.
8. The tribunal may take all appropriate measures to establish the facts.
9. The parties to the dispute shall facilitate the work of the arbitral tribunal and, in

particular, using all means at their disposal, shall:

- (a) Provide it with all relevant documents, facilities and information;
- (b) Enable it, where necessary, to call witnesses or experts and receive their evidence.

10. The parties and the arbitrators shall protect the confidentiality of any information they receive in confidence during the proceedings of the arbitral tribunal.
11. The arbitral tribunal may, at the request of one of the parties, recommend interim measures of protection.
12. If one of the parties to the dispute does not appear before the arbitral tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to render its final decision. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings.
13. The arbitral tribunal may hear and determine counter-claims arising directly out of the subject-matter of the dispute.
14. Unless the arbitral tribunal determines otherwise because of the particular circumstances of the case, the expenses of the tribunal, including the remuneration of its members, shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all its expenses, and shall furnish a final statement thereof to the parties.
15. Any Party to this Convention which has an interest of a legal nature in the subject-matter of the dispute, and which may be affected by a decision in the case, may intervene in the proceedings with the consent of the tribunal.
16. The arbitral tribunal shall render its award within five months of the date on which it is established, unless it finds it necessary to extend the time limit for a period which should not exceed five months.
17. The award of the arbitral tribunal shall be accompanied by a statement of reasons. It shall be final and binding upon all parties to the dispute. The award will be transmitted by the arbitral tribunal to the parties to the dispute and to the secretariat. The secretariat will forward the information received to all Parties to this Convention.
18. 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 tribunal constituted for this purpose in the same manner as the first.

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