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WORKING GROUP ON SHARED NATURAL RESOURCES

(Groundwaters)

REPORT OF THE WORKING GROUP

Introduction

1. At its 2868th meeting on 2 May 2006, the Commission decided to reconvene¹ the Working Group on Shared natural resources, whose composition, under the Chairmanship of Mr. Enrique Candioti, was announced at the same meeting.²
2. The Working Group continued, and completed, its consideration of the draft articles submitted by the Special Rapporteur in his third report (A/CN.4/551 and Corr.1) with a view to the possible submission of a revised text taking into account the debate in the Commission on the topic.

¹ The Commission established the Working Group on Shared natural resources at its fifty-seventh session. The report of the Working Group at the fifty-seventh session is contained in document A/CN.4/L.681.

² The Working Group was composed as follows: Mr. Enrique Candioti (Chairman), Mr. C. Yamada (Special Rapporteur), Mr. João Clemente Baena Soares, Mr. Pedro Comissário Afonso, Mr. Riad Daoudi, Ms. Paula Escarameia, Mr. Salifou Fomba, Mr. Giorgio Gaja, Mr. Zdzislaw Galicki, Mr. Peter C.R. Kabatsi, Mr. William Mansfield, Mr. Michael Matheson, Mr. Didier Operti Badan, Mr. Pemmaraju Sreenivasa Rao and Mrs. Hanqin Xue (*ex officio*).

3. The Working Group held five meetings on 2, 3, 4 and 10 May 2006. The Working Group also benefited from the presence of an expert on groundwaters from UNESCO at its 1st to 3rd meetings, whose advice and assistance greatly facilitated its work.
4. The Working Group proceeded on the basis of an article-by-article consideration of the draft articles, without prejudice as to the final form of the instrument.
5. The Working Group completed its review of the draft articles proposed by the Special Rapporteur and revised them as contained in the annex. Footnotes have been used as appropriate to indicate aspects that may require clarification or elaboration in the commentary. The draft articles have been renumbered in order to account for the deletion of draft articles 4 and 11, the merging of draft articles 16 and 17 and the shifting of some other draft articles.
6. The Working Group recommends that the draft articles, as revised by the Working Group, be considered by the Commission and submitted to the Drafting Committee, in order to facilitate the early completion of the first reading.

Annex

Draft articles³ on the law of transboundary aquifers

Part I

Introduction

Article 1 [1]⁴

Scope of the present draft articles

The present draft articles apply to:

- (a) Utilization of transboundary aquifers and aquifer systems;

³ Consistent with the practice of the Commission, the term “draft articles” has been used without prejudice as to the final form.

⁴ The article numbers in brackets are those given in the third report of the Special Rapporteur (A/CN.4/551 and Corr.1).

(b) Other activities that have or are likely to have an impact⁵ upon those aquifers and aquifer systems; and

(c) Measures for the protection, preservation and management of those aquifers and aquifer systems.

Article 2 [2]

Use of terms

For the purposes of the present draft articles:

(a) “Aquifer” means a permeable water-bearing⁶ underground geological formation underlain by a less permeable layer and the water contained in the saturated zone of the formation;⁷

(b) “Aquifer system” means a series of two or more aquifers that are hydraulically connected;⁸

(c) “Transboundary aquifer” or “transboundary aquifer system” means, respectively, an aquifer or aquifer system, parts of which are situated in different States;

(d) “Aquifer State” means a State in whose territory any part of a transboundary aquifer or aquifer system is situated;

(e) “Recharging aquifer” means an aquifer that receives a non-negligible amount of contemporary water recharge;

⁵ The term “impact” would be clarified in the Commentary.

⁶ The Commentary would indicate that “water-bearing” has been employed to simply distinguish coverage from oil and gas.

⁷ The element of quantity of water will be explained in the commentary, indicating that the draft articles are not concerned about formations containing minimal amounts of water.

⁸ The Commentary would explain the meaning of “hydraulically connected”.

(f) “Recharge zone” means the zone which contributes water to an aquifer, consisting of the catchment area of rainfall water and the area where such water flows to an aquifer by runoff on the ground and infiltration through soil;

(g) “Discharge zone” means the zone where water originating from an aquifer flows to its outlets, such as watercourse, lake, oasis, wetland and ocean.

Part II

GENERAL PRINCIPLES

Article 3

Sovereignty of aquifer States

Each aquifer State has sovereignty over the portion of a transboundary aquifer or aquifer system located within its territorial jurisdiction. It shall exercise such sovereignty in accordance with the present draft articles.

[Article 4]

[DELETED]

Article 4 [5]

Equitable and reasonable utilization

1. Aquifer States shall utilize a transboundary aquifer or aquifer system in a manner that the benefits to be derived from such utilization shall accrue equitably to the aquifer States concerned.
2. Aquifer States shall utilize a transboundary aquifer or aquifer system in a reasonable manner. They shall aim to maximize the long-term benefits derived from the use of the water contained therein and to this end they shall establish an overall plan for utilization of such aquifer or aquifer system, taking into account present and future needs of and alternative water sources for the aquifer States. In the case of a recharging

transboundary aquifer or aquifer system, utilization levels should not be such as to prevent continuance of the effective functioning of such aquifer or aquifer system.⁹

Article 5 [6]

Factors relevant to equitable and reasonable utilization

1. Utilization of a transboundary aquifer or aquifer system in an equitable and reasonable manner within the meaning of article 4 requires taking into account all relevant factors and circumstances, including:

- (a) The natural characteristics¹⁰ of the aquifer or aquifer system;
- (b) The contribution to the formation and recharge of the aquifer or aquifer system;
- (c) The social and economic needs of the aquifer States concerned;
- (d) The population dependent on the aquifer or aquifer system in each aquifer State;
- (e) The effects of the utilization of the aquifer or aquifer system in one aquifer State on other aquifer States concerned;
- (f) The existing and potential utilization of the aquifer or aquifer system;
- (g) The development, protection and conservation of the aquifer or aquifer system and the costs of measures to be taken to that effect;

⁹ The notion of “long-term benefits” will require explication in the Commentary. The notion of “agreed lifespan of such aquifer and aquifer system” contained in the earlier draft by the Special Rapporteur would also require elaboration. The Commentary would also make clear that this paragraph does not imply that the level of utilization must necessarily be limited to the level of recharge.

¹⁰ The Commentary should cite examples of the various natural characteristics.

(h) The availability of alternatives¹¹ to a particular existing and planned utilization of the aquifer or aquifer system;

(i) The place of the aquifer or aquifer system in the related ecosystem.¹²

2. 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 reasonable and equitable utilization, all relevant factors are to be considered together and a conclusion reached on the basis of all the factors. However, in weighing different utilizations of a transboundary aquifer or aquifer system, special regard shall be given to vital human needs.

Article 6 [7]

Obligation not to cause harm to other aquifer States

1. Aquifer States shall, in utilizing a transboundary aquifer or aquifer system in their territories, take all appropriate measures to prevent the causing of significant harm¹³ to other aquifer States.

2. Aquifer States shall, in undertaking activities other than utilization of a transboundary aquifer or aquifer system that have or are likely to have an impact on that transboundary aquifer or aquifer system, take all appropriate measures to prevent the causing of significant harm through that aquifer or aquifer system to other aquifer States.

¹¹ The Commentary would address the element of viability and cost.

¹² The concept of “ecosystem” will be further clarified by the Special Rapporteur with scientific advice, also taking into account draft article 12 in his third report.

¹³ The Commentary would elaborate in detail the relative nature of “significant harm” for purposes of the draft articles.

3. Where significant harm nevertheless is caused to another aquifer State, the aquifer States whose activities cause such harm shall take, in consultation with the affected State, all appropriate measures to eliminate or mitigate such harm, having due regard for the provisions of articles 4 and 5.

Article 7 [8]

General obligation to cooperate

1. Aquifer States shall cooperate on the basis of sovereign equality, territorial integrity, sustainable development,¹⁴ mutual benefit and good faith in order to attain equitable and reasonable utilization and appropriate protection of a transboundary aquifer or aquifer system.
2. For the purpose of paragraph 1, aquifer States should establish joint mechanisms of cooperation.¹⁵

Article 8 [9]

Regular exchange of data and information

1. Pursuant to article 7, aquifer States shall, on a regular basis, exchange readily available data and information on the condition of the transboundary aquifer or aquifer system, in particular of a geological, hydrogeological, hydrological, meteorological and ecological nature and related to the hydrochemistry¹⁶ of the aquifer or aquifer system, as well as related forecasts.

¹⁴ The term “sustainable development” denotes the general principle of sustainable development and should be distinguished from the principle of sustainable utilization in the context of draft article 4.

¹⁵ The Commentary would indicate the types of mechanisms envisaged, such as Joint Commissions. It will also allude to the need to take into account the experience of other existing joint mechanisms and commissions in various regions.

¹⁶ The Commentary would explain in lay terms the meaning of the terms in the phrase “in particular of a geological, hydrogeological, hydrological, meteorological and ecological nature and related to the hydrochemistry of the aquifer or aquifer system”.

2. Where knowledge about the nature and extent of some transboundary aquifer or aquifer systems is inadequate, aquifer States concerned shall employ their best efforts to collect and generate, taking into account current practices and standards, individually or jointly and, where appropriate, together with or through international organizations, more complete data and information relating to such aquifer or aquifer systems.

3. If an aquifer State is requested by another aquifer State to provide data and information relating to the aquifer or aquifer systems that are not readily available, it shall employ its best efforts to comply with the request. The requested State may condition its compliance upon payment by the requesting State of the reasonable costs of collecting and, where appropriate, processing such data or information.

4. Aquifer States shall, where appropriate, employ their best efforts to collect and process data and information in a manner that facilitates their utilization by the other aquifer States to which such data and information are communicated.

[Article 11]

[DELETED]

Part III

PROTECTION, PRESERVATION AND MANAGEMENT

Article 9 [12]

Protection and preservation of ecosystems

Aquifer States shall take all appropriate measures to protect and preserve ecosystems within, or dependent upon, their transboundary aquifers or aquifer systems, including to ensure that the quality and quantity of water retained in the aquifer or aquifer system, as well as that released in its discharge zones, is sufficient to protect and preserve such ecosystems.

Article 10 [13]**Recharge and discharge zones**

1. Aquifer States shall identify recharge and discharge zones of their transboundary aquifer or aquifer system and, within these zones, shall take special measures to minimize detrimental impacts on the recharge and discharge processes.
2. All States in whose territory a recharge or discharge zone is located, in whole or in part, and which are not aquifer States for that aquifer or aquifer system, shall cooperate with the aquifer States to protect the aquifer or aquifer system.

Article 11 [14]**Prevention, reduction and control of pollution**

Aquifer States shall, individually and, where appropriate, jointly, prevent, reduce and control pollution of their transboundary aquifer or aquifer system, including through the recharge process, that may cause significant harm to other aquifer States. In the light of uncertainty about the nature and extent of transboundary aquifers or aquifer systems, aquifer States shall take a precautionary approach.

Article 12 [10]**Monitoring**

1. Aquifer States shall monitor their transboundary aquifer or aquifer system. They shall, wherever possible, carry out these monitoring activities jointly with other aquifer States concerned and, where appropriate, in collaboration with the competent international organizations. Where, however, monitoring activities are not carried out jointly, the aquifer States shall exchange the monitored data among themselves.
2. Aquifer States shall use agreed or harmonized standards and methodology for monitoring their transboundary aquifer or aquifer system. They should identify key parameters that they will monitor based on an agreed conceptual model of the aquifer or aquifer system. These parameters should include parameters on the condition of the aquifer or aquifer system as listed in draft article 8, paragraph 1, and also on the utilization of the aquifer and aquifer system.

Article 13 [15]

Management

Aquifer States shall establish and implement plans for the proper management of their transboundary aquifer or aquifer system in accordance with the provisions of the present draft articles. They shall, at the request by any of them, enter into consultations concerning the management of the transboundary aquifer or aquifer system. A joint management mechanism shall be established, wherever appropriate.

Part IV

ACTIVITIES AFFECTING OTHER STATES

Article 14 [16 and 17]

Planned activities

1. When a State has reasonable grounds for believing that a particular planned activity in its territory may affect a transboundary aquifer or aquifer system and thereby may have a significant adverse effect upon another State, it shall, as far as practicable, assess the possible effects of such activity.
2. Before a State implements or permits the implementation of planned activities which may affect a transboundary aquifer or aquifer system and thereby may have a significant adverse effect upon another State, it shall provide that State with timely notification thereof. Such notification shall be accompanied by available technical data and information, including any environmental impact assessment, in order to enable the notified State to evaluate the possible effects of the planned activities.
3. If the notifying and the notified States disagree on the possible effect of the planned activities, they shall enter into consultations and, if necessary, negotiations with a view to arriving at an equitable resolution of the situation. They may utilize an independent fact-finding body which may be able to make an impartial assessment of the effect of the planned activities.

Part V

MISCELLANEOUS PROVISIONS

Article 15 [18]

Scientific and technical cooperation with developing States

States shall, directly or through competent international organizations, promote scientific, educational, technical and other cooperation with developing States for the protection and management of transboundary aquifers or aquifer systems. Such cooperation shall include, *inter alia*:

- (a) Training of their scientific and technical personnel;
- (b) Facilitating their participation in relevant international programmes;
- (c) Supplying them with necessary equipment and facilities;
- (d) Enhancing their capacity to manufacture such equipment;
- (e) Providing advice on and developing facilities for research, monitoring, educational and other programmes;
- (f) Providing advice on and developing facilities for minimizing the detrimental effects of major activities affecting transboundary aquifers or aquifer systems;
- (g) Preparing environmental impact assessments.

Article 16 [19]

Emergency situations

1. For the purpose of this draft article, “emergency” means a situation, resulting suddenly from natural causes or from human conduct, that poses an imminent threat of causing serious harm to States.

2. Where such an emergency poses a threat to vital human needs, aquifer States may derogate from the provisions of draft articles 4, 5, and 6 to the extent necessary to meet such needs.

3. Where an emergency affects a transboundary aquifer or aquifer system and thereby poses an imminent threat to States, the following shall apply:

(a) A State within whose territory an emergency originates shall, without delay and by the most expeditious means available, notify other potentially affected States and competent international organizations of such an emergency.

(b) This State shall, in cooperation with potentially affected States and, where appropriate, competent international organizations, immediately take all practicable measures necessitated by the circumstances to prevent, mitigate and eliminate any harmful effect of the emergency.

(c) States shall provide scientific, technical, logistical and other cooperation to other States experiencing an emergency. Cooperation may include coordination of international emergency actions and communications, making available trained emergency response personnel, emergency response equipments and supplies, scientific and technical expertise and humanitarian assistance.

Article 17 [20]

Protection in time of armed conflict

Transboundary aquifers or aquifer systems and related installations, facilities and other works shall enjoy the protection accorded by the principles and rules of international law applicable in international and non-international armed conflicts and shall not be used in violation of those principles and rules.

Article 18 [21]¹⁷

Data and information vital to national defence or security

Nothing in the present draft articles obliges a State to provide data or information the confidentiality of which is essential to its national defence or security. Nevertheless, that State shall cooperate in good faith with other States with a view to providing as much information as possible under the circumstances.

Article 19 [3]

Bilateral and regional arrangements

For the purpose of managing a particular transboundary aquifer or aquifer system, aquifer States in whose territories such an aquifer or aquifer system is located are encouraged to enter into a bilateral or regional arrangement among themselves. Such arrangement may be entered into with respect to an entire aquifer or aquifer system or any part thereof or a particular project, programme or utilization except insofar as the arrangement adversely affects, to a significant extent, the utilization by one or more other aquifer States of the water in that aquifer or aquifer system, without their express consent.¹⁸

¹⁷ The Commentary shall indicate that a disagreement existed within the Working Group with regard to this draft article. The Commentary shall also make reference to the protection of industrial secrets and intellectual property.

¹⁸ This provision will be further clarified in the Commentary.