Transboundary Aquifers in International Law

The process at the UN ILC

Contribution by Raya Marina Stephan

UNESCO

r.stephan@unesco.org

The subject of groundwater in international law is a recent one. While international water law is quite developed for surface water, it is still in a very preliminary stage regarding groundwater.

I will examine here the evolution of the consideration of groundwater in international law, that took place and is currently taking place at the International Law Commission of the United Nations.

I should explicit here that the International Law Commission was established by the General Assembly in 1947 to promote the progressive development of international law and its codification. The Commission, which meets annually, is composed of 34 members who are elected by the General Assembly for five year terms and who serve in their individual capacity, not as representatives of their Governments. Most of the Commission’s work involves the preparation of drafts on topics of international law.

I will start my presentation by examining the issue of groundwater in the UN Watercourse Convention of 1997, and then I will proceed with the current process at the ILC.

I. The UN Watercourse Convention (1997)

In 1997, the UN General Assembly adopted the Convention on the Non-Navigational Uses of International Watercourses based on the articles drafted by the International Law Commission. Following the recommendation of the General Assembly in 1970, the International Law Commission had started in 1971 the study of the law on the non-navigational uses of international watercourses with a view to its progressive development and codification. And it is only in 1994 that the ILC finally presented to the General Assembly the final version of the draft articles.

The Convention was adopted by a vote of 104 to 3, with 26 abstentions. The Convention requires 35 ratifications to enter into force, which it has not received yet. (16 Signatories, 12 ratifications).

During its study of the law on the non-navigational uses of international watercourses, the International Law Commission considered the question of groundwater in relation to the scope of the Convention, but only in 1991 when Special Rapporteur Stephen McCaffrey presented a detailed study on the subject. The Commission debated his proposal and finally agreed to include in the draft Convention groundwater related to surface water. The members of the ILC considered that when the surface and groundwaters formed a system of a unitary whole, human intervention at one point in such a system might have effects elsewhere within
the same system. What the members of the Commission called “confined groundwater” meaning groundwater unrelated to surface water was excluded from the scope. In 1992, Robert Rosenstock, who succeeded to Stephen McCaffrey as Special Rapporteur, suggested to include all groundwaters in the scope of the Convention. His proposal was not accepted. The suggestion to include groundwater in the scope of the Convention came for the first time very late at the ILC, when many principles and rules were already drafted by the ILC members having in mind only surface water. Thus the ILC members felt uneasy to apply these principles and rules to something they had not had in mind when formulating them.

Finally the 1997 Convention applies “to uses of international watercourses and of their waters for purposes other than navigation and to measures of protection, preservation and management related to the uses of those watercourses and their waters.” (article 1). Article 2 defines a watercourse as “a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus”. An international watercourse is “a watercourse, parts of which are situated in different States”.

The Convention excludes from its scope groundwater unrelated to surface water, as well as groundwater flowing to a terminus different than that of hydraulically related surface water body (which is not uncommon). From a hydrogeological point of view, a great majority of transboundary aquifers remains out of the scope of the Convention.

However, the International Law Commission adopted a “Resolution on confined transboundary groundwater” commending States to be guided by the principles contained in the draft articles (the Convention), where appropriate, in regulating transboundary groundwater. In its Resolution, the ILC recognized “the need for continuing efforts to elaborate rules pertaining to confined transboundary groundwater.” And in 1998, the Planning Group of the ILC identified as one of the topics for inclusion in the ILC’s long-term program of work, shared natural resources (confined groundwater and single geological structures of oil and gas).

II. Groundwater in the agenda of the ILC

In 2002, at its fifty-fourth session, the ILC decided to include in its programme of work the topic of “Shared Natural Resources”, and appointed Ambassador Chusei Yamada as Special Rapporteur. A tentative work plan was established as follows:

- 2003: First report on outline
- 2004: Second report on confined groundwaters
- 2005: Third report on oil and gas
- 2006: Fourth report on comprehensive review

The framework of UNESCO IHP’s ISARM (International Shared Aquifers Resources Management, ISARM framework document available at http://unesdoc.unesco.org/images/0012/001243/124386e.pdf) project, a multidisciplinary ad-hoc task force of experts has been established by UNESCO in close cooperation with FAO and IAH to assist the Special Rapporteur of the UNILC on the preparation of a new International legal instrument on Transboundary Aquifers. The experts group holds meetings
in Paris and Tokyo, and participated in a working group in Geneva with ILC members, and prepares documents and technical notes on transboundary aquifers at the intention of the Special Rapporteur.

A. The first report

1. Contents

In his first report (A/CN.4/533) submitted at the fifty-fifth session of the ILC (2003), Ambassador Yamada presented the background of the topic. He proposed to begin his study with what he calls confined groundwaters. At that stage, the scope of his study is limited to groundwaters “that are shared by more than two States but are not covered by article 2 (a) of the Convention on the Law of the Non-navigational uses of international watercourses”. However he deemed it necessary to know exactly what such groundwaters are. He indicated that he intended to conduct studies on the practice of States with respect to uses and management, including pollution prevention, and case of conflicts, as well as domestic and international rules.

The addendum to the first report was technical in nature and sought to provide a better understanding of what constituted confined transboundary groundwaters.

2. The debates

a. At the ILC

The debate at the ILC highlighted the need to consider the definition of the groundwater to be dealt with in the study.

It was stressed that the principle of sovereignty was as relevant to groundwaters, as it was for oil and gas, and that accordingly any reference to the concept of common heritage of mankind would raise concerns.

Doubts were expressed regarding the applicability to the topic of the principles contained in the 1997 Convention on the Law of the Non-navigational uses of international watercourses. Some principles could not be directly transposed such as article 5 dealing with the principle of equitable and reasonable utilisation, or article 7 on the no-harm rule which was regarded as too weak given the vulnerability of aquifers to pollution.

Regional developments should be considered in the approach of the topic, as they might be more effective than a universal one.

b. At the 6th Committee of the General Assembly

During the discussion of the Special Rapporteur’s report in the Sixth Committee of the General Assembly, several speakers referred to the GA’s Resolution on Permanent Sovereignty over Natural Resources (14 December 1962), and stressed the importance of applying the principle of national sovereignty over natural resources. Several speakers emphasized the necessity for protecting groundwaters from pollution and expressed the need for heightened standards of due diligence, as compared to those of surface waters.

---

1 A/CN.4/533 §19
B. The second report

a. Contents

In his second report A/CN.4/539 presented at the fifty-sixth session of the ILC last month, Ambassador Yamada presented several draft articles in order to offer the members of the ILC a basis for discussion.

In view of the sensitivity expressed at the Commission and in the 6th Committee, Ambassador Yamada decided to drop the term “shared”, and to use “transboundary groundwaters”.

The Special Rapporteur still thinks that the 1997 Convention offers a good basis to build a regime for groundwaters, even if some of its principles need to be adjusted. The draft articles he proposes will be considered according to the general framework of the 1997 Convention.

Concerning terminology, the Special Rapporteur chose to use the term “aquifer” instead of “groundwater”, as according to him it leaves no ambiguity. He also decided not to use the term “confined”, which was used at the ILC to mean “unrelated”, while for hydrogeologists it means a hydraulic state where waters are stored under pressure.

The Special Rapporteur even decided to drop the concept of “confined”, “unrelated”, or “not connected and to cover all groundwaters.

The scope of the convention is defined to apply to the uses of transboundary aquifer systems and to the measures of their management as well as other activities which may “have an impact on those systems”.

On the principles governing uses of aquifer systems, no draft article is presented. In the 1997 Watercourse Convention, the main principle is the principle of equitable and reasonable use. However, according to the Special Rapporteur the principle is valid when the resource in question is “shared”. But in the case of groundwaters there exists much resistance to the notion of “shared resource”. Therefore the Special Rapporteur is not sure if the “principle of equitable use is politically acceptable”.

As for the reasonable use, the principle is valid when the resource is renewable. In case of non-renewable groundwaters, the Special Rapporteur feels that the concept is irrelevant.

The obligation not to cause harm is drafted in article 4. The report includes further draft articles on the following principles:

- general obligation to cooperate among aquifer system States
- regular exchange of data and information
- relationship between different kind of uses

The addendum includes a presentation of aquifer models, some case studies and a selected bibliography

b. The debates.

The approach adopted by the Special Rapporteur in his study of the sub-topic of “transboundary groundwaters” was generally appreciated.

---

2 A/CN.4/539 §15
The importance of regional developments was again raised, and it was said that a draft convention would not be incompatible with regional or national approaches.

Regarding the definitions in article 2 some ILC members required clarification on the term “exploitable”. They wondered if the term implied that current possibilities to exploit aquifers (ie technologies) or also future developments, and if the concept referred to quantities of water that could be used or to notions of commercial viability.

As for the principles that should govern the use and management of transboundary aquifer systems, several ILC members stressed on the need to include more principles than those contained in the 1997 Convention, especially in the area of environmental protection and the sustainable use of aquifers. The protection of vital human needs was deemed to be one of the major principles that merited enunciation.

On the obligation not to cause harm (article 4), several points were raised. The article should include an obligation to prevent harm to the aquifer itself, and not to the aquifer State as suggested, considering inter-generational equity and respect for environmental integrity.

As for the concept of harm, some members felt that the concept remained obscure, and that it needed clarification. For example in the case of aquifers, it should clearly relate to the rate of extraction. However, it was also felt that the “significant harm” concept could be defined at a regional level, as it varied depending on different factors, such as the passage of time, or the level of economic development. Nevertheless a lower threshold than significant harm was required, since groundwaters were much more vulnerable to pollution than surface waters.

Ambassador Yamada will present his second report at the 6th Committee of the General Assembly in November 2004.

Early 2005, the Special Rapporteur will submit his third report on transboundary groundwaters which will contain further rules and principles. He intends to present an international framework for the prevention of harm. He still needs to know more about State practice, existing treaties, and domestic legislation.

**Conclusion**

As a conclusion I would like to mention here other international instruments dealing with the management of transboundary groundwaters. These instruments are non-binding as drafted by experts.

The International Law Commission, a non-governmental body, has developed in 1966 the Helsinki Rules on the Uses of the Waters of International Rivers. The Helsinki Rules have adopted the concept of “drainage basin” which is defined as “a geographical area extending over two or more States determined by the watershed limits of the system of waters, including surface and underground waters, flowing into a common terminus” (article 2). In 1986 the ILA adopted the Seoul Rules consisting of four articles dealing exclusively with groundwater. Following the Seoul Rules, the Helsinki Rules became applicable to all transboundary groundwaters, connected or not.
The ILA revised the Helsinki Rules and adopted last August the Berlin Rules. In this revision the Rules apply to domestic and transboundary waters. Principles of environmental law have been introduced along with the classical principles of international law.

My final word will be for the Bellagio Draft Treaty (1989) drafted by a group of multidisciplinary experts. The text is a model treaty that States can wish to adopt for the management of transboundary aquifers.