

**SUSTAINABLE DEVELOPMENT AS A
CONCEPT FOR HANDLING SPECIFIC
WATER ISSUES AND FOR LAW MAKING
AND INTERPRETATION (2):
THE *GABCIKOVO-NAGYMAROS* CASE
AND THE UNITED NATIONS
INTERNATIONAL WATERCOURSES
CONVENTION**

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III. SUSTAINABLE DEVELOPMENT AS A GUIDING CONCEPT FOR ELABORATION OF, AND IS REFLECTED IN, THE 1997 UNITED NATIONS INTERNATIONAL WATERCOURSES CONVENTION

1. An overview of the Convention's major provisions and the scope of issues addressed in Part III

The 1997 Watercourses Convention contains 37 articles, an Annex on Arbitration as provided in its Article 33, and Statements of Understanding Pertaining to Certain Articles of the Convention. The Preamble, among other things, affirms the importance of a legal framework for States' cooperative efforts in this field, and recalls several principles of environmental law which were adopted during the 1990s⁽¹⁵³⁾.

Part I – Introduction – covers general issues such as the scope of the Convention (Article 1) and definitions of terms used (Article 2)⁽¹⁵⁴⁾. Article 3 states that the Convention does not affect the rights and obligations of watercourse States under their existing water agreements/treaties; nor does it prevent watercourse States from entering into additional watercourse agreements which adjust the provisions of the Convention to regulate the specific needs of their particular water relationships. The Convention recognizes a rather popular practice of cases in which only some, but not all watercourse States, are parties to an agreement concerning a particular watercourse⁽¹⁵⁵⁾; and provides that in such cases, such an agreement shall not affect the rights and obligations of the watercourse states that are not parties to the agreement⁽¹⁵⁶⁾.

Part II – General Principles – is the backbone part as it contains the basic principles for the use and protection of international watercourses. The principles of water use are premised on the general provisions of international law that people have the right to development⁽¹⁵⁷⁾. Given the mutual relationship between

development and utilization of water, the right to development in the case of water is the right to use it⁽¹⁵⁸⁾. The right to use waters can also be assumed from a well established practice, accepted as law, that States are entitled to manage and utilize natural resources within its territory, and to formulate its developmental and environmental policies⁽¹⁵⁹⁾.

Officially abandoning the obsolete concepts of absolute territorial sovereignty (“ATS”)⁽¹⁶⁰⁾ and absolute territorial integrity (“ATI”)⁽¹⁶¹⁾ which claimed absolute rights to use shared waters, Part II of the 1997 Watercourses provides for modern principles of utilization. The central principle of use is the principle of equitable and reasonable utilization and participation (“ERUP”)⁽¹⁶²⁾. Article 6 presents a non-exhaustive list of factors to be taken into account when determining an equitable and reasonable use⁽¹⁶³⁾. Article 7 requires that in utilizing an international watercourse a state not cause harm to other states⁽¹⁶⁴⁾. States are generally required to cooperate (Article 8), and to regularly exchange information and data regarding the watercourse concerned (Article 9). Article 10 specifies that if not otherwise agreed upon, no use of an international watercourse is given priority over other uses.

Part III – Planned Measures – enshrines a series of procedural measures for the implementation of the substantive provisions of the Convention. It starts with a requirement that watercourse States exchange information, consult, and where possible, negotiate on planned measures concerning the conditions of an international watercourse (Article 11). Notification of a planned measure is to be accompanied by sufficient technical data and the result of environmental impact assessment to enable the notified State to evaluate the possible effects of the planned measure (Article 12). Articles 13–15 specify the time periods for notification and reply to notification. Article 17 provides for a possibility of consultations and negotiations of a planned measure for an equitable resolution if the planned measure is thought to be inconsistent with the principles of equitable and reasonable utilization and non-significant harm in Articles 5 and 7 of the Convention. Article 19 is concerned with urgent implementation of planned measures where certain

procedures in Part III can be omitted.

Part IV is regarded as the one containing the environmental provisions of the Watercourses Convention⁽¹⁶⁵⁾. This is the part that was formulated under the direct command of the concept of sustainable development⁽¹⁶⁶⁾. Though the picture of the environment emerged at a rather late stage⁽¹⁶⁷⁾, the environment finds a proper place in the Convention⁽¹⁶⁸⁾. The chapeau, Article 20, enshrines the general obligation to protect and preserve the ecosystems of an international watercourse⁽¹⁶⁹⁾. Prevention, reduction and control of pollution are provided for in Article 21⁽¹⁷⁰⁾. Article 22 requires riparian states to prevent the introduction of alien or new species into international watercourses⁽¹⁷¹⁾. Article 23 addresses in a general way the problem of marine pollution from land-based sources in relation to international watercourses⁽¹⁷²⁾. Management is modestly provided for in Article 24⁽¹⁷³⁾. Article 25 addresses regulation of watercourses – a common phenomenon for both international and national watercourses⁽¹⁷⁴⁾. Article 26 on installations is to ensure the safety of water works, especially the construction and maintenance of dams since a faulty dam may pose great danger to downstream states⁽¹⁷⁵⁾.

Part V deals with harmful conditions and emergency situations. Article 27 calls for a watercourse State to take actions to mitigate and prevent conditions on an international watercourse that may be harmful to other watercourse States. In emergency situations, a watercourse State shall notify the affected States, and shall take measures to prevent, mitigate or eliminate the harmful effects of the emergency⁽¹⁷⁶⁾.

It is apparent that the Convention covers in a comprehensive manner the different substantive and procedural aspects relating to the use, protection and management of international watercourses. Part III does not present commentaries to the Convention on an article-to-article basis⁽¹⁷⁷⁾. Rather, it focuses on the degree of relationship between the Convention's provisions on utilization of international watercourses and those on their protection/preservation. The expected objective of this part is to find out how the CSD as relied upon to draft, and how it is actually reflected in, the Convention. The arguments in Part III, especially those concerning

international watercourses' protection and preservation are based on an understanding that water is different from other types of natural resources, for example, oil or coal. Water is 1) a good to be consumed; 2) a medium for other living species; and 3) a renewable natural resources conditional on a number circumstances. Protection of water from pollution is dictated by the requirement that water transferred from one generation to another be in relatively the same conditions of quality⁽¹⁷⁸⁾. Contaminating water by the present generation will reduce the options of water use by future generations⁽¹⁷⁹⁾. Water must be preserved because even though being a renewable resources, water may become exhaustive due to extensive use⁽¹⁸⁰⁾. For this reason, the environmental component of the CSD as applied to water should be understood in a broad sense to cover not only protection of water against pollution, but also preservation of water⁽¹⁸¹⁾. It is also for this reason of comprehensiveness that the 1997 Watercourses Convention uses both terms "protection" and "preservation"⁽¹⁸²⁾ in critical provisions⁽¹⁸³⁾.

Towards the stated end of Part III, Section 2 deals with the Convention's overall approach. Section 3 addresses the issue of choosing the key terms used in the Convention: "watercourse" and "drainage basin." Section 4 argues that the ERUP contains within itself certain environmental requirements. Section 5 explores the relationship between the ERUP and the non-significant harm principle ("NSHP"). Summarizing remarks for Part III are in Section 6.

2. Overall approach: being pulled between utilization and environmental protection

Even though "sustainable development" does not reach the status of a hard principle in the 1997 Watercourses Convention⁽¹⁸⁴⁾, the latter does not leave the concept unattended. The term itself, or its similar version, is mentioned at its "face value" three times in the Convention: "sustainable utilization" twice, in the Preamble and Article 5, and "sustainable development" once in Article 24. They, as mentioned in the said parts, denote either an objective⁽¹⁸⁵⁾, or an

object/tool for planning the use of international watercourses⁽¹⁸⁶⁾. Noteworthy is the fact that there was no objection regarding incorporation of the term “sustainable utilization” in the Preamble of the Convention except for the only one made by the Czech Republic who proposed moving it to a more proper place in Part IV of the Convention⁽¹⁸⁷⁾.

With respect to Article 5(1), the 1994 ILC version did not contain the word “sustainable”⁽¹⁸⁸⁾ while the final version adopted by the General Assembly does⁽¹⁸⁹⁾. During the final negotiating conference, references to sustainable utilization were introduced into the text of the convention together with other changes to modernize the ILC draft, taking into account recent developments of international environmental law⁽¹⁹⁰⁾. The addition of the term “sustainable” after “optimal” to make the present phrase “optimal and sustainable utilization” was accepted by the majority of members in the Working Group of the Whole. Only Czech Republic and India opposed to the addition, but not on a substantive ground; they did not object to the concept as such. The representative of the Czech Republic stated that the mentioning of “sustainable utilization” in Article 5 was inappropriate since as far as the concept of sustainable development is concerned, its proper place is part IV of the Convention⁽¹⁹¹⁾. India, which abstained from voting, was concerned that the concept was not clearly defined, and that there should be technical assistance to developing countries to implement sustainable development⁽¹⁹²⁾.

“Sustainable development” as such appears for the last time in Article 24⁽¹⁹³⁾. According to the ILC, the use of terms in this article such as “sustainable development” and “rational and optimal utilization” should be understood in the context of the process of managing international water resources; and therefore in no way affects the application of articles 5 and 7 which establish the fundamental basis of the Convention as a whole⁽¹⁹⁴⁾. It follows that as is mentioned in Article 24, sustainable development does not reflect a basic and substantive obligation such as NSHP or ERUP, but seems to be a procedural aspect of managing international waters. In any event, the mere mentioning of the term here gives a certain additional weight to the need to use water in a sustainable

manner.

While a direct mentioning of sustainable utilization/development can only be found three times in the Convention, the sense of taking into account both developmental and environmental needs with respect to international watercourses was rather active during the process of drafting⁽¹⁹⁵⁾, and is actually omnipresent in, the Convention as it is seen today. For example, the Preamble takes account of the problems affecting international watercourses such as increasing demands and pollution, and recalls the principles and recommendations of the Rio Declaration and Agenda 21⁽¹⁹⁶⁾. The underlying philosophy and the special emphasis of these two latter documents are the integration of development and environment and the CSD⁽¹⁹⁷⁾. Even more, the Preamble does not mention “sovereignty” – a traditional chapeau of the majority of international instruments – as a basis for the Convention⁽¹⁹⁸⁾. Clearly, this intentional omission suggests considering an international watercourse something of a common integral whole for the purpose of use and protection rather than being artificially separated by political boundaries⁽¹⁹⁹⁾. It is understandable that this omission was opposed by, among others, China, Rwanda and Turkey⁽²⁰⁰⁾. China, voting against the Convention, is an upper riparian which is well-known for a series of unilateral dams on the upper Mekong⁽²⁰¹⁾.

The 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”⁽²⁰²⁾. That the Convention applies to both the use and protection alone provides “for a link between the uses of international watercourses and measures of conservation, thus recognizing the difficulty of separating the two”⁽²⁰³⁾. The ILC explains that the “measures” in Article 1 are rather broad, covering a variety of issues concerning the use and protection/conservation of international watercourses⁽²⁰⁴⁾. The combination of utilization and protection/preservation goes on to be seen in a number of other articles of the Convention⁽²⁰⁵⁾.

The voting pattern of the Convention, to a certain extent, also indicates a tendency of States’ properly taking into account the need

to balance between using and protecting international watercourses, thus placing limit to unrestrained development. Three countries which voted against the Convention are primarily upper riparians, with China being the World's most populous country⁽²⁰⁶⁾. All but 26 states which abstained from voting are developing upper riparians⁽²⁰⁷⁾. The General Assembly vote reveals a tendency of upstream riparian states not vote for the adoption of the Convention⁽²⁰⁸⁾. This trend seems to indicate that the Convention places certain burden on future development by upper riparians⁽²⁰⁹⁾. The fact that all developed countries, even upper riparian ones, voted for can be explained by more active environmental movements there, and that freshwater resources of these countries are almost fully developed⁽²¹⁰⁾. As indicated earlier in this article⁽²¹¹⁾, while upper riparians cling to the ERUP⁽²¹²⁾ for less burden on their free use, lower riparians cry for the NSHP⁽²¹³⁾. The fact that 103 countries, both upper and lower riparians, voted for is a self-explanatory proof of balance of interests⁽²¹⁴⁾.

A comparison of the actual allocation of articles on utilization of international watercourses and those on their protection/preservation also poses a point related to the balancing approach of the Convention. As mentioned, Part II contains six articles on the various principles for the utilization of international watercourses⁽²¹⁵⁾. Part IV contains seven articles on different requirements relating to protection/preservation of international watercourses⁽²¹⁶⁾. The mere fact that the environmental component occupies a separate part in the Convention is already an important token of success for environmentalists⁽²¹⁷⁾. While it may sound illogical to separate the interrelated provisions of a single whole and integrated legal document and subjectively group them under categories, a *prima facie* look at the actual allocation of articles suggests a relative balance between the articles on utilization and protection/preservation aspects of international watercourses.

Certain observations can be made to summarize the main points of Section 2. Though not being amounted to a hard principle, sustainable development/utilization is actually mentioned in certain parts of the Convention, including its preamble. Of more importance,

however, is the fact that the requirement to integrate utilization of international watercourses and their protection and preservation – the core of sustainable development – is the central theme of the Convention. This theme went throughout the drafting process, and is now reflected in the Convention.

3. The “watercourse” versus “drainage basin”: gives and takes in choosing terms

In order to ensure sustainable development of an international water body, the approach of treating the latter is of special importance. Notable in this approach are the two frequently used terms: “drainage basin” and “watercourse.”

The 1966 Helsinki Rules define an international drainage basin 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”⁽²¹⁸⁾. In its comments to this definition, the International Law Association (“ILA”) made two important points. The first point is that with the modern uses of international rivers, “the concern is no longer limited to the navigable portion of the international river, but rather encompasses all waters included in the entire system, comprising the international drainage basin”⁽²¹⁹⁾. The second point is that “[a]n international drainage basin is the entire area, known as the watershed, that contributes water, both surface and underground, to the principal river, stream or lake or other common terminus”⁽²²⁰⁾.

Under the ILA’s definition, the concept of an “international drainage basin” is rather broad. It covers not only a watercourse itself, but also all the sources of water flowing into the watercourse⁽²²¹⁾. A drainage basin area also includes the land and forests in that area – the two components that have considerable impacts on the hydrological cycle of the water in the basin⁽²²²⁾. The volume of water of the main channel is contributed by tributaries coming from all over the drainage area. If the soil on the drainage area is contaminated, then it is likely that the water of a tributary,

and finally, of the main channel would also be contaminated. The capacity of storing water in an area depends very much on the density of forests in that area⁽²²³⁾. Imbalance between supply and demand of water may be caused by severe deforestation in the drainage basin. Forests help to slow down floods. Clear-cutting of forested slopes can cause soil erosion and degradation of the watershed with resulting siltation of rivers, lakes and dams downstream⁽²²⁴⁾. Thus, for the rational development of a common water body, the drainage basin approach has become a necessity⁽²²⁵⁾.

The issue of choice between “drainage basin” and “watercourse” was complex in a global water convention such as the 1997 Watercourses Convention⁽²²⁶⁾. On this point, opinions were rather diverse. Some countries suggested a return to the “drainage basin” approach as that in the 1966 Helsinki Rules⁽²²⁷⁾; some others resisted such a proposal; still others wanted to expand the scope of the convention to include the ecosystem of the river basin⁽²²⁸⁾. Finally, the term “watercourse” was chosen, and is defined 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;” and an “international watercourse” is defined as “a watercourse, parts of which are situated in different States”⁽²²⁹⁾. Compared to the Helsinki “drainage basin” approach, the definition of an international watercourse in the Convention is narrower in one aspect: the latter does not cover the entire area which contributes water to the watercourse.

The Convention’s definition of an “international watercourse” is, however, comparable to the “drainage basin” approach in the Helsinki Rules in a very important aspect: the former does cover groundwaters⁽²³⁰⁾. In addition, the scope of groundwaters covered in the Convention is rather broad⁽²³¹⁾. For the reason of including groundwater into the scope of regulation of the Convention, the term “international watercourse” as used in the Convention is broader than an “international river”⁽²³²⁾. The important message of the definition of “watercourse” in Article 2 (a) is that it not only accords with hydrologic reality, but also calls the attention of states to the interrelationship among all parts of the system of surface and

underground waters that makes up an international watercourse⁽²³³⁾.

That groundwaters fall under the scope of regulation of the Convention has special implications for sustainable development of an international watercourse. Groundwater constitutes by far the largest sources of freshwater⁽²³⁴⁾. From a simple hydrologic point of view, lowering of groundwater tables may in the long run lead to more reduction in the surface flow⁽²³⁵⁾. An effect on one part of the system will generally be transmitted to the other parts⁽²³⁶⁾. For example, too much use of groundwater entails the lowering of groundwater tables which effects *inter alia* domestic supply wells, the sustainability of ponds, and which may increase the release of arsenic into water supply⁽²³⁷⁾. In short, due to the tight connection and interdependency among the waters of a watercourse⁽²³⁸⁾; inclusion of groundwaters in the Convention is a success from a protection/preservation perspective⁽²³⁹⁾.

4. Equitable and reasonable utilization: itself containing environmental requirements

Dr. Patricia Wouters, a prominent international water law authority, in a sharp response to criticism at the second World Water Forum⁽²⁴⁰⁾ that the 1997 Watercourses Convention failed to meet the environmental imperatives, interestingly noted that the principle of equitable and reasonable use incorporates within itself the very notion of sustainable development⁽²⁴¹⁾. Wouters supported her view by indicating that environmental protection and conservation are among the factors to be considered in determining if a particular use is equitable and reasonable⁽²⁴²⁾.

It goes without doubt that the ERUP as provided for in Article 5 of the Convention is not a self-executing legal norm⁽²⁴³⁾. For this reason, Article 6 presents a non-exhaustive list of factors that states are required to take into account when determining an equitable and reasonable use. Of these, there are two sets of factors which are related to, and have very important implications, for sustainable development of international watercourses: the ecological factors in Article 6(1)(a), and the conservation, protection, development and

economy of use factors in Article 6(1)(f)⁽²⁴⁴⁾. For clarity, Section 4 examines these factors in three separate groups: the ecological factors, the protection/conservation factors, and the economy of use.

(a) *Ecological factors*

Under Article 6(1)(a), for determining if an use is equitable and reasonable, the ecological aspects of a watercourse, along with others, have to be taken into account⁽²⁴⁵⁾. Since the details of “ecology” are provided for in Article 20, Article 6(1)(a) should be read together with this article. Thus, Article 20, the chapeau of Part IV, reads: “Watercourse States shall, individually and, where appropriate, jointly, protect and preserve the ecosystems of international watercourses.” Three points should be made in this connection. First, since “ecosystem” as used in Article 20 is a replacement for “environment”⁽²⁴⁶⁾, the “ecological factors” in Article 6(1)(a) should mean “environmental factors.” Second, the “ecology” approach embraces in itself a certain degree of sustainable development⁽²⁴⁷⁾. According to the ILC, the term “ecosystem” as used in the ILC draft⁽²⁴⁸⁾ refers to “an ecological unit consisting of living and non-living components that are interdependent and function as a community”⁽²⁴⁹⁾. Since the “ecosystems” of an international watercourse include land areas contiguous to it⁽²⁵⁰⁾, it is safe to infer that Article 20 also requires that such contiguous land be also protected⁽²⁵¹⁾. Thus, Article 20 widens the scope of protection/preservation to also cover the related parts of a watercourse’s ecosystems, including both direct and indirect impacts brought about by using land resources within the watercourse basin⁽²⁵²⁾. A third point, therefore, is that the ecological factors mentioned in Article 6(1)(a) are not limited only to those within a watercourse, but actually go as far as the scope of Article 20 covers. This point is of importance for better protection/preservation of a watercourse if viewed from a “drainage basin” approach⁽²⁵³⁾.

(b) Protection/conservation factors

Article 6 (1)(f) lists both conservation⁽²⁵⁴⁾ and protection as factors. As in the case of “ecological factors” above, Article 6 (1)(f) should be read together with Part IV of the Convention because these two terms are fully developed in Part IV. Protection generally reflects the requirement that watercourse States use an international watercourse in a manner that is consistent with adequate protection thereof, and that they shield the ecosystems of international watercourses from harm or damage⁽²⁵⁵⁾. Meanwhile, “preservation” applies in particular to freshwater ecosystems that are in a pristine and unspoiled condition, and requires that these ecosystems be protected in such a way as to maintain them as much as possible in their natural state⁽²⁵⁶⁾. An observation can be made that the conservation and protection factors listed in Article 6 (1)(f) are rather comprehensive; and the fact of their being together helps to provide “an essential basis for sustainable development”⁽²⁵⁷⁾.

Under Article 21, “pollution of an international watercourse means any detrimental alteration in the composition or quality of the waters of an international watercourse which results directly or indirectly from human conduct.” Four points regarding this definition are worthy of note. First, pollution is understood in general manner because the definition does not specifically refer to any particular type of pollution⁽²⁵⁸⁾. This can be interpreted to mean that the scope of pollution covered here is rather broad⁽²⁵⁹⁾. Secondly, the definition does not fix a level, or, in other words, does not prejudge the threshold at which pollution becomes impermissible because it only refers to “any detrimental alteration” in general⁽²⁶⁰⁾. This means that a particular level of pollution is left open for concerned parties to decide. Thirdly, with the term “quality” being generally understood as the degree of purity of water, the definition does not specify what “detrimental effects” are, and only refers generally to detrimental effects in the composition or quality of the waters⁽²⁶¹⁾. It appears that confining the detrimental effects in “composition or quality” of water does not seem to be comprehensive enough in terms of protecting the ecosystem of an

international watercourse. This incomprehensiveness, however, is compensated by an additional provision in Article 22 on the ecological aspects of pollution⁽²⁶²⁾. Fourthly, the definition does not refer to the means by which pollution is caused; it requires only that “detrimental alteration” be caused by pollution resulting from human conduct⁽²⁶³⁾. The latter is understood to include both actions and omissions⁽²⁶⁴⁾.

A relevant point can be made to summarize the discussion in this subsection: the conservation and protection factors as provided for in Article 6 (1)(f) should be understood in its relation to Articles 21 and 22 of Part IV on the Convention. Since these two articles cover the protection and conservation in a rather broad sense, the protection/conservation factors specified in Article 6 (1)(f) should also be interpreted in a similar broad context.

(c) *Economy of use*

Article 6(1)(f) of the Convention mentions, in a modest manner, “economy of use” as a factor to determine an equitable and reasonable use. According to the ILC, the expression “economy of use” in here refers to the avoidance of unnecessary waste of water⁽²⁶⁵⁾. Though modest as it may seem, the provision on the economy of use is actually a powerful provision. It adds more weight on the need to conserve water.

Economy of use is of special importance for sustainable development of international watercourses. While water is plentiful, its usable amount is limited. Of the total amount of water on the earth, only three percent is fresh water; and of the latter, more than two percent is locked away in either the polar ice caps or underground aquifers, and therefore, is unavailable to satisfy the needs of man⁽²⁶⁶⁾. Even worse, only 0.36 percent of the world’s water in rivers, lakes and swamps is sufficiently accessible to be considered a renewable freshwater resources⁽²⁶⁷⁾. In 1850, the average amount of water available per person worldwide was 43,000 cubic meters per year; today it is under 9,000 – a change brought about only by increases in population⁽²⁶⁸⁾. With the world’s population (now at 5.7 billion)

expected to reach 8.3 billion in the year 2025⁽²⁶⁹⁾, demand for water increases sharply, far exceeding the currently 3,800 cubic kilometers of fresh water which is withdrawn annually from the world's rivers, lakes and aquifers⁽²⁷⁰⁾. It is probably for the reason of water exhaustion that some body of water is now declared a "nonrenewable resource"⁽²⁷¹⁾. This is not to mention the problem that water is allocated too unevenly: some parts of the world have too much while some other have too little⁽²⁷²⁾.

5. The relationship between ERUP and NSHP: a slight tilt towards utilization

The two cornerstone articles regarding the use of an international watercourse are the equitable and reasonable principle (ERUP) (Articles 5 and 6) and no-significant harm principle (NSHP) (Article 7). Which of this principle prevails in case they come into conflict has important implications for sustainable development of the watercourse. Based on the widely recognized proposition that the harm prohibited under the no-harm rule in Article 7 of the Convention covers environmental harm⁽²⁷³⁾, Section 5 argues that since the ERUP is given a slight preference over the NSHP, the concern for development/utilization of an international watercourse is better reflected in the Convention than that for environmental protection.

Article 5 allows watercourse states to "utilize an international watercourse in an equitable and reasonable manner taking into account the interests of the Watercourse States concerned, consistent with adequate protection of the watercourse." Article 7 provides:

1. Watercourse States shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States.
2. Where significant harm nevertheless is caused to another watercourse State, the States whose use causes such harm shall, in the absence of agreement to such use, take all appropriate measures, having due regard for the provisions of articles 5 [equitable and reasonable utilization and participation] and 6

[factors relevant to equitable and reasonable utilization], in consultation with the affected State, to eliminate or mitigate such harm and, where appropriate, to discuss the question of compensation.

Taking into account these two provisions together, there could be a case in which the ERUP provided for in Article 5 comes into clash with the NSHP in Article 7. The conflict in this case can be illustrated by an example: upstream State A has not significantly developed its water resources because of its mountainous terrain. The topography of downstream States B and C, is flatter, and they have used the watercourse extensively for centuries. State A now wishes to develop its water resources for hydroelectric and agricultural purposes. States B and C no cry foul on the ground that this would significantly harm their established uses. How should the positions of State A, on the one hand, and States B and C, on the other, neither of which seems unreasonable on its face, be reconciled?⁽²⁷⁴⁾

The legal problem in the aforesaid example can be solved by establishing which principle, the ERUP or the NSHP, prevails. Unfortunately, the Convention is not clear on this point. It is for this ambiguity that a number of countries held a rather biased view that the Convention fails to establish the clear and proper relationship between the ERUP and the NSHP; and that the Convention should have provided for the primacy of the ERUP over the obligation not to cause significant harm⁽²⁷⁵⁾. For an answer to this question, it is necessary to take a look at the *travaux preparatoire* of the Convention.

Article 7(1) of the Convention was initially enjoined states from using water in such a way that would “cause significant harm to other watercourse states”⁽²⁷⁶⁾, but two major objections surfaced which led to a major revision⁽²⁷⁷⁾. Development proponents criticized this version of making development subordinate to environmental quality⁽²⁷⁸⁾. Environmentalists criticized this version as only prohibiting harm “capable of being established by objective evidence”⁽²⁷⁹⁾. The 1994 version of Article 7(1) which the ILC

presented to the General Assembly for consideration read: “Watercourse States shall exercise *due diligence* to utilize an international watercourse in such a way as not to cause significant harm to other watercourse States” [*sic*]⁽²⁸⁰⁾. “Due diligence” was understood to mean “a diligence proportioned to the magnitude of the subject and to the dignity and strength of the power which is to exercise it;” and “such care as governments ordinarily employ in their domestic concerns”⁽²⁸¹⁾. The insertion of “due diligence” makes it clear beyond doubt that this was not in any way an absolute obligation, but rather best efforts under the circumstances⁽²⁸²⁾. This mitigated obligation was formulated in an understanding that in certain circumstances, “equitable and reasonable utilization” of an international watercourse may still involve significant harm to another watercourse states; and in such instances, the ERUP would remain the guiding criterion in balancing the interests at stake⁽²⁸³⁾. “Due diligence” was later taken out at the UN negotiation, and was replaced by the phrase “take all appropriate measures” as quoted above.

According to McCaffrey, who was for a long time the ILC special rapporteur for the drafting of the Convention⁽²⁸⁴⁾, the replacement is “merely saying the same thing in different words”⁽²⁸⁵⁾. The crux of the dilemma now is Article 7(2). In McCaffrey’s view, Article 7(2) gives precedence to the ERUP over the NSHP for at least two reasons: 1) the very existence of paragraph 2 implicitly acknowledges that harm may be caused without engaging the harming state’s responsibility; and 2) where harm is nevertheless caused, the problem is to be resolved with “having due regard for the provisions of articles 5 and 6.” – an explicit return to the ERUP⁽²⁸⁶⁾. Also, the proposition that the “no-harm” rule does not enjoy inherent preeminence is supported by Article 10 of the Convention which provides that any conflict between uses is to be resolved “with reference to Articles 5-7”⁽²⁸⁷⁾. This would mean that if State A’s hydroelectric use conflicts with State B’s agricultural use, the conflict is not to be resolved solely by applying the “no-harm” principle in Article 7, but rather through reference to the “package” of articles setting forth the principles of both equitable utilization

and “no-harm”⁽²⁸⁸⁾. The view that the ERUP is given certain more weight than the NSHP is also held by other scholars⁽²⁸⁹⁾.

Thus, it would seem reasonable to conclude that while the Convention itself is not clear on whether the ERUP or the NSHP prevails in case of conflict, there is a strong evidence that the former does. Adopting the view that adverse environmental impacts are an inevitable consequence of development⁽²⁹⁰⁾, the Convention therefore slightly tilts towards the needs for utilization of international watercourses. The tilt, though, is rather subtle and sensitive, and can only be found by looking closer to the various interrelated provisions of the Convention and its *travaux preparatoire*.

6. Summary

It has taken the international community more than a quarter of a century to work out and finally to approve the Watercourses Convention⁽²⁹¹⁾. Given the exceedingly difficult requirement to balance the extremely diverse interests of upper/lower and developed/developing riparians in more than 200 shared water bodies in the world⁽²⁹²⁾ in a global convention of this nature, the mere fact that the text of the Convention has been approved is already a great success. Any evaluation of the Convention, therefore, should take into account the context of States’ tolerance and the spirit of gives and takes that have actually rendered the coming into light of this Convention possible. The following three points to summarize Part III are made in this context.

First, given its still debatable and difficult-to-quantify nature, the CSD has not been fitted in the Convention as a hard legal principle. Now and then, the concept is reflected either as an objective to be achieved, or a tool to be used in management of international watercourses.

Second, notwithstanding the aforesaid, it is still fairly safe to conclude that the spirit of the CSD is omnipresent in the Convention – both in the process of its elaboration, and in the Convention as it is today. The examination of the *travaux preparatoire* – a supplementary source to be used for the Convention’s interpretation⁽²⁹³⁾ –

suggests that the drafters were actually guided by the requirement to integrate the needs to utilize an international watercourse and its protection to formulate the Convention. They were actually caught in the sensitive issue of easing the tension between development and environment and balancing these two aspects⁽²⁹⁴⁾. The enormous number of paper works of the ILC, the Special Rapporteurs, and the Working Group of the Whole, part of which have been referred to in Part III, has proven this.

Finally, the requirement of integration of developmental and environmental needs is the central theme of the Convention. Though in certain occasions, a little more weight is given to utilization, in overall, a relative balance is maintained throughout the Convention. The most successful aspect of the Convention, perhaps, lies in the reality that it encompasses a series of interlocking provisions. Those on the right to use international watercourses are always checked by those on their protection and vice versa. In this connection, it is relevant to pay attention to another fact that the Convention was perhaps the first among other international conventions that was drafted with full participation of all interested countries⁽²⁹⁵⁾. If one is still obsessed by the feeling that developing countries always tilt towards the development side, then one should be satisfied with the number of environmental requirements spelled out in the Convention. Vice versa, if the feeling of environmental protection has so far seemed to be the “monopoly” of developed countries, then the developmental part of the Convention should be hailed. No matter how certain countries cry foul, or even refused to place their pens on the Convention’s text – a quite understandable phenomenon, though – it looks like the Convention has achieved a win-win situation: a relative balance of development and environment. It is therefore fair to conclude that sustainable development is not at all left unattended in the Convention. It is probably for this reason that the sponsors of the resolution containing the Convention were “convinced” that it “will contribute to the equitable and reasonable use of transboundary water resources and their ecosystems, as well as to their preservation to the benefit of current and future generations”⁽²⁹⁶⁾.

The Convention requires 35 instruments of ratification/ acceptance to become effective⁽²⁹⁷⁾. It is not known yet when the Convention will have the sufficient number of these instruments to enter into force. In any event, the Convention will still be of value if it does not enter into force: it will have significant bearing upon controversies between States⁽²⁹⁸⁾, and, with the theme of balancing the different needs, will guide states in regulating their shared waters relationships.

IV. CONCLUSION

It would be unnecessary to repeat what has already been said in Section 5 of Part II and Section 6 of Part III which summarize the major points of discussion on the Gabčíkovo-Nagymaros case and the 1997 Watercourses Convention. What has remained, though, is to add a few more words that weave these two events together.

While the search to answer what sustainable development means and what its legal status is continues, the two basic understandings of the concept – being a balance between development and environment and a guiding concept – are currently of importance value. With respect to international waters, the CSD, be as general as it may, has proven to be a perfect fit.

The CSD was relied upon as a tool to handle a specific water issue in the Gabčíkovo-Nagymaros case. From a development/ environment perspective, the facts and arguments in the case are textbook ones: Slovakia claimed the right to use the Danube; and Hungary relied on environmental disasters to stop itself and Slovakia from exercising that right. The Court tolerated both arguments, seemingly being sympathetic to both parties, but favored neither of them. This is probably the only case adjudicated by the ICJ in which the Court evaded to give a direct answer to a normally answerable question: what party wins and what loses. The perplexity, and to certain extent, the ambivalence, of the Court in the case are somewhat a reflection of the difficult-to-quantify nature of the

concept it was guided by: sustainable development. The reasoning of the Court throughout the case, its reference to the CSD in the near end, and the decision that the parties negotiate in good faith to end the dispute have proven the clear intention of the Court to strike as much balance as possible between the need to use the Danube and the requirement to protect its degrading environment. The cornerstone of this balance lies in the CSD itself – the concept that the Court relied on to decide on the fate of the dispute.

The 1997 Watercourses Convention is the only convention of a universal character on international watercourses⁽²⁹⁹⁾. While scholars will undoubtedly spill much ink over the possible nuances of the Convention's provisions, one thing is already clear: it was drafted with the utmost attention given to, and actually reflects, the compromise between the use and protection of international watercourses. The theme of integrating these two seemingly oxymora can be found, directly or indirectly, in the series of the interlocking articles that make the Convention a single whole. The CSD that was once used as an instrument to formulate the Convention will surely have to be invoked again to interpret its implementation. Understandably though, because the Convention, as it says of itself, is a framework convention which will help to guide riparians in their specific water issues.

The CSD has helped to shape the outcomes of the two important events in the law regulating international waters: the case and the Convention addressed in this article. From the time immemorial, utilization of a shared river seems to have contained within itself a source of contradiction. Interestingly enough, the English word “rival” – connoting a person or thing that tries to equal, or even outdo another in an endeavor⁽³⁰⁰⁾ – takes its root in the Latin term *rivals*, which originally meant using the same river⁽³⁰¹⁾. The type of the conflict over the Danube is just another one in the series of those in the long history of exploiting international rivers – a history filled with rivalries, conflicts and even wars⁽³⁰²⁾. It is strongly hoped that the 1997 Convention, with its broader approach of “watercourse,” the interlocking provisions on the share, the use and the protection, and the sustainable development approach it adheres to, will reduce

to minimum water disputes like the one discussed in this article.

ENDNOTES

- (153) *See infra* Section 2 in Part III for more details.
- (154) *See infra* Section 3 in Part III for more details.
- (155) A typical example of cases of this nature is the Mekong River. While the river is shared by six countries – China, Myanmar, Thailand, Laos, Cambodia, and Vietnam – the present cooperative framework on the Mekong exists only among the four latter countries, except China and Myanmar. *See generally* 1995 Mekong Agreement, *supra* note 11 (providing for the legal framework for cooperation among the four countries on the Mekong).
- (156) 1997 Watercourses Convention, *supra* note 34, art. 3(6).
- (157) *See*, for example, Charter of the United Nations (art. 55 providing that the U.N. promotes, among other things, economic and social progress and development); U.N.G.A. Declaration on the Right to Development, Dec. 4, 1986 (stating that the right to development is an inalienable human right); and Vienna Declaration and Program of Action adopted at the World Conference on Human Rights, June 25, 1993, in *The United Nations and Human Rights 1945–1995* (UN Blue Books Series, vol. VII, New York, 1995), doc. No. 85 (para. 10 stating that the World Conference on Human Rights reaffirms the right to development as a universal and inalienable right and an integral part of fundamental human rights; and para. 11 stating that the right to development should be fulfilled so as to meet equitably the developmental and environmental needs of present and future generations).
- (158) The use of fresh water has direct impact on development, and the level of development can have direct consequences for the uses of fresh water. *See* Antoinette Hildering, *Allocation of Fresh Water and the Right to Development*, a paper presented at Seminar International Law and Sustainable Development: Principle and practice, Amsterdam, Nov. 29, Dec. 1, 2001, at 7, on file with author.
- (159) U.N.G.A. Resolution 1803 (XVII) (1962) states in para. 1 that the right of peoples and nations to permanent sovereignty over natural resources must be exercised in the interest of their national

- development and the well-being of the people of the State concerned. See 1972 Stockholm Declaration, *supra* note 1, Principle 21; and 1992 Rio Declaration, *supra* note 10, Principle 2. In Lake Lanoux Arbitration (France v. Spain), 12 R.I.A.A. 281, the Tribunal held that a state has a right to initiate development on its own natural resources.
- (160) Under the concept of ATS, otherwise known as the Harmon Doctrine, a riparian state has the right to unlimited uses of the part of a river flowing in the territory of that state, regardless of the consequences it may cause to other co-riparian states. The concept took its origin in a dispute between the United States and Mexico over the a U.S. diversion of the waters of the Rio Grande River in late 19th century. Mexico's objection to the then diversion was referred to U.S. Attorney General Judson Harmon for his opinion. Harmon maintained that the U.S. had total freedom to use water of the river in the territory of the U.S., no matter what consequences such use would cause to Mexico. Due to its myopic nature, the concept, which was usually used by upper riparians, was later abandoned in state practice. For the original concept see HARMON OPINION (Dec. 13, 1895), *reprinted in* 1 INTERNATIONAL ENVIRONMENTAL LAW REPORTS, App. 1, 543 (Cairo A. R. Robb, ed.) (1999); for a detailed discussion of the concept see Stephen McCaffrey, *The Harmon Doctrine One Hundred Years Later: Buried, Not Praised*, 36 Nat. Resources J. 965 (1996).
- (161) As an antithesis to the concept of ATS, the ATI concept, often used by lower riparians, claims that every state must allow rivers to flow their natural course, and an upstream country may not divert the water, or interrupt, or artificially increase or diminish, its flow. Since respect of the natural flow of a river is paramount, alteration of such flow implies a violation of the integrity of a country's territory. In effect, lower riparians have a general right to veto water rights of upper riparians. Like ATS, ATI is no longer in use. For details on the concept of ATI see generally J. BRUHACS, THE LAW OF NON-NAVIGATIONAL USES OF INTERNATIONAL WATERCOURSES 43 (1993); and D. P. O'CONNELL, 1 INTERNATIONAL LAW (2nd ed.) 557 (1970).
- (162) See 1997 Watercourses Convention, *supra* note 34 (art. 5 stating that watercourse states shall in their respective territories utilize an international watercourse in an equitable and reasonable manner, and

- that they participate in the use, development and protection of the watercourse in an equitable and reasonable manner).
- (163) The factors, among other things, include the natural conditions of a watercourse, social and economic needs of watercourse states, the effects of use, existing and potential uses, conservation and protection of watercourses and the economy of use, and the availability of alternative to an use. A detailed analysis of environmental factors follows in Section 4 of Part III.
- (164) Para. 1 of art. 7 provides that “[w]atercourse States shall, in utilizing an international watercourse in their territories, take all appropriate measures to prevent the causing of significant harm to other watercourse States.”
- (165) McCaffrey, *An Overview*, *supra* note 37, at 66.
- (166) The ILC explained that part IV was drafted in under the guidance that “[m]ankind must conserve the Earth’s resources in order to permit sustainable development, and that development was sustainable when it met the needs of the present without compromising the ability of future generation to meet theirs.” *See* Speech by Mr. McCaffrey (Special Rapporteur) at the 2062nd Meeting of the I.L.C. in *Summary Records of the Meetings of the Fortieth Session*, (9 May – Jul. 29, 1988), 1 Y.B. Int’l L. Comm’n. 122, A/ CN.4/SER.A/1988 [hereinafter Speech by McCaffrey].
- (167) Views have been expressed that the ILC “finalized its articles at a moment when international water law is about to venture in new directions. The agenda for future discourse of water law has already been set and there is little doubt that that will converge around the notion of protection of vital human needs, ecosystem protection and sustainability. However, the authority for these developments, mostly dating from the 1980s, emerged too late for the Commission, which stuck to the convenient doctrine of equitable use.” A. Nollkaemper, *The Contribution of the International Law Commission to International Water Law: Does it Reverse the Flight from Substance?* 27 Neth. Y.B. Int’l L. 39, 53 (1996).
- (168) *See* ATTILA TANZI & MAURIZIO ARCARI, *THE UNITED NATIONS CONVENTION ON THE LAW OF INTERNATIONAL WATERCOURSES, A FRAMEWORK FOR SHARING* 232 (2001)
- (169) Under art. 20, watercourse states shall individually, or where appropriate, jointly, protect and preserve the ecosystems of international watercourses. More detailed analysis is presented in

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infra Section 4 of Part III.

- (170) *See infra* Section 4 in Part III a detailed analysis.
- (171) *See infra* Section 4 in Part III for more details.
- (172) Under art. 23, watercourse states are required to take all measures with respect to an international watercourse that are necessary to protect and preserve the marine environment, including estuaries, taking into account generally accepted international rules and standards.
- (173) In essence, art. 24 recommends states to establish joint water bodies to manage the international watercourse they share.
- (174) Para. 1 spells out an obligation to respond to the needs for regulation of river flows. Para. 2 provides for equitable sharing of costs incurred of regulation works. Para. 3 defines “regulation” to mean the use of a work to alter, vary or control the flow of water. For an analysis of art. 25, *see* McCaffrey, *An Overview*, *supra* note 37, at 67.
- (175) Under art. 26, watercourse states are to make best efforts to maintain and protect water works in their territories; and to consult with other watercourse states concerned on the safeness and protection of waterworks in their respective territories. For an analysis of this article, *see* McCaffrey, *id.*
- (176) 1997 Watercourses Convention, *supra* note 34, art. 28.
- (177) For a thorough analysis of the Convention on an article-to-article basis *see* TANZI & ARCARI, *supra* note 168.
- (178) *See generally* WEISS, *supra* note 23, at 232–47.
- (179) Degraded water quality, for example, render water unfit for drinking and swimming purposes. Disposal of waste into a water source triggers damaging, costly and essentially irreversible changes in the quality of the water source; and a cost for cleaning up must be paid. Pollution of a water body may lead to depletion of plant and animal life living in the water body. *See id.* especially at 10, 11, 108, & 232–8.
- (180) HEATHER L. BEACH ET AL., *TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION* 62 (2000).
- (181) Linguistically, “preserve” means to maintain or to make lasting, while “protect” merely means to defend or guard from, for example, attack or invasion. *RANDOM HOUSE WEBSTER’S COLLEGE DICTIONARY* 1067, 1085 (1991).
- (182) Under the *Statement of Understanding Pertaining to Certain Articles of the Convention* made by the Working Group of the Whole, UN

- G.A.O.R., 51 sess., Rep. of the Sixth Committee, UN Doc. A/51/869 (1997), the concept of “preservation” also includes that of “conservation” [hereinafter Statement of Understanding]. The I.L.C. explained that measures of conservation are meant to embrace not only measures to deal with degradation of water quality resulting, for example, in pollution, but also those aimed at solving other problems such as those relating to living resources, flood control, erosion, sedimentation and saltwater intrusion. *See* I, L.C., *Draft Articles on the Law of the Non-Navigational Uses of International Watercourses*, (1994) 2 Y.B. Int’l L. Comm’n. 89, U.N. Doc. A/CN.4.SER.A/1944/Add.1 (Part 2) [hereinafter ILC, Draft Articles].
- (183) To name but a few, the pmbl. expresses “the conviction that a framework convention will ensure utilization, development, *conservation*, management and *protection* of international watercourses” [*sic*]; art. 6(f) states that “[c]onservation [and] protection” are among the factors to be taken into account in determining an equitable and reasonable use; and art. 20 provides for both “protection and preservation of ecosystems.”
- (184) This absence, perhaps, gave rise to a dissatisfaction of several delegations in the Working Group convened by the General Assembly for discussion of the draft articles, who believed that the ILC Drafts did not sufficiently recognize the importance of sustainability in assessing uses and options for watercourse development. *See* J.R. Crook & S.C. McCaffrey, *Current Development: The United Nations Starts Work on a Watercourse Convention*, 91 AJIL 374, 377(1997).
- (185) As expressed in the pmbl. and in art. 5.
- (186) As expressed in art. 24.
- (187) U.N. GAOR, 99th Plenary Meeting, May 21, 1997, U.N. Doc. A/51/PV.99, at 6.
- (188) Art. 5(1) of the I.L.C. version reads: “...with a view to attaining optimal utilization” (*see* ILC, Draft Articles, *supra* note 182, at 96) while the G.A. adopted version thereof reads: “... with a view to attaining optimal and sustainable development.”
- (189) Schwabach, *The United Nations Convention*, *supra* note 35, at 271.
- (190) Stephen C. McCaffrey & Mpazi Sinjela, *Current Development: The 1997 United Nations Convention on International Watercourses*, 92 AJIL 97, 99 (1998).
- (191) U.N. G.A.O.R., 51st Sess., 99th Plenary Meeting, UN Doc. A/51/PV.99 (1997) at 6.

- (100) Sustainable Development as a Principle for Handling ... (Long)
- (192) *Id.* at 9.
- (193) Under art. 24, “management” of an international watercourse refers *inter alia* to “[p]lanning the sustainable development of [the] international watercourse and providing for the implementation of any plans adopted.”
- (194) ILC, Draft Articles, *supra* note 182, at 125.
- (195) Even a “pro-development” member of the I.L.C. admitted that there was no conflict between development and ecology, and that developing countries wished to pursue their efforts to achieve development in a safe and habitable environment. *See* comments by Mr. Sreenivasa Rao at the 2066th Meeting of the I.L.C., in *Summary Records of the Meetings of the Fortieth Session*, (9 May – Jul. 29, 1988), 1 Y.B. Int’l L. Comm’n. 151, A/CN.4/SER.A/1988.
- (196) *See* 1997 Watercourses Convention, *supra* note 34, at pmb1.
- (197) For the related provisions of the 1992 Rio Declaration *see supra* note 10. Agenda 21 was adopted by more than 178 Governments at the U.N. Conference on Environment and Development (UNCED) held in Rio de Janeiro, Brazil, Jun. 3-14, 1992. Chapter 18 of Agenda 21, entitled “Protection of the Quality and Supply of Freshwater Resources,” among other things calls the states to integrate the use and protection of water resources. *See* Agenda 21 in REPORT OF THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT, A/CONF.151/26, vol. II, Aug. 13, 1992.
- (198) *See* 1997 Watercourses Convention, *supra* note 34 (the pmb1. is silent on this point).
- (199) Waters of the world do not respect manmade boundaries. The most effective use and protection of an international watercourse require considering it a single hydrologic unit. *See* Michelle R. Sergent, *Comparison of the Helsinki Rules to the 1994 U.N. Draft Articles: Will the Progression of International Watercourse Law be Dammed?*, 8 Vill. Envtl L.J. 435, 435 (1997).
- (200) U.N. G.A.O.R, 99th Plenary Meeting, May 21, 1997, U.N. Doc. A/51PV.99, at 4–6.
- (201) *See* David Black, *China’s Mekong Dam Plans*, <<http://www.mekongforum.org/chinadam.html>>
- (202) 1997 Watercourses Convention, art. 1.
- (203) *See* comments by Mr. Bennouna at the 2064th Meeting of the I.L.C., in *Summary Records of the Meetings of the Fortieth Session*, (9 May – Jul. 29, 1988), 1 Y.B. Int’l L. Comm’n. 134, A/CN.4/SER.A/1988

- [hereinafter I.L.C., *Summary Records of 40th Session*].
- (204) They embrace not only measures taken to deal with degradation of water quality but also those aimed at solving other watercourses problems, such as those relating to living resources, flood control, erosion, sedimentation and salt water intrusion; and these issues were confirmed by states inquired. ILC, Draft Articles, *supra* note 182, at 89.
- (205) *See*, for example, arts. 5(1), 6 (1)(g), and 8(1).
- (206) Burundi, China and Turkey voted against. *See* U.N. GAOR, 51st Sess., 99th Plen. Mtg., U.N. Doc. A/51/PV. 99 (1997) at 8.
- (207) *See id.*
- (208) Jordan C. Kahn, *1997 United Nations Convention on the Law of Non-Navigational Uses of International Watercourses*, 1997 Colo. J. Int'l Envtl. L. Y.B. 178.
- (209) The delegate from Ethiopia, an upstream state on the Nile, explained his country's abstention, stating that the Convention "falls short of achieving the required balance, in particular in safeguarding the interests of upper riparian States." Similarly, the French delegate stated that the Convention is "clearly weighted in favour of interests of downstream States." *See* U.N. GAOR, 51st Sess., 99th Plen. Mtg., U.N. Doc. A/51/PV. 99 (1997) at 8–9. For an analysis of this point *see* Schwabach, *The United Nations Convention*, *supra* note 35, at 261.
- (210) Schwabach, *id.*
- (211) *See* analysis of the interrelationship between the ERUP and NSHP in Section 5 of Part III.
- (212) An overview of the interests of upper riparians is presented in Schwabach, *The United Nations Convention*, *supra* note 35.
- (213) For a view of lower riparians on the earlier drafts of the Convention, especially on the claim for the preference of NSHP over the ERUP, *see, e.g.* Reaz Rahman, *The Law of the Non-Navigational Uses of International Watercourses: Dilemma for Lower Riparians*, 19 *Fordham Int'l L.J* 9 (1995).
- (214) *See* U.N. GAOR, 51st Sess., 99th Plen. Mtg., U.N. Doc. A/51/PV. 99 (1997) at 7.
- (215) Arts. 5–10 inclusive.
- (216) Arts. 20–26 inclusive.
- (217) It should be noted that the grouping of the provisions covering environmental protection and preservation of watercourses in a

- separate part in the Convention to fortify them is already a success. Discussions within the ILC were centered on whether such issue deserved a separate part; and it was finally agreed that given the importance of protection and preservation of international watercourses, the issue deserves a separate part in the Draft Articles. I.L.C., *Report of the Commission to the General Assembly on the Work of its Fortieth Session*, 2 Y.B. Int'l L. Comm'n. 25–26, A/CN.4/SER.A/1988/Add.I (Part 2) [hereinafter ILC, Report].
- (218) *See* Helsinki Rules on the Uses of International Rivers, Aug. 20, 1966, 52 I.L.M. 484 (1967), art. II [hereinafter 1966 Helsinki Rules].
- (219) I.L.A., HELSINKI RULES ON THE USES OF WATERS OF INTERNATIONAL RIVERS, COMMENTS, *reprinted in* THE LAW OF INTERNATIONAL DRAINAGE BASINS 779, 780 (A.H. Garretson, R.D. Hayton & C.J. Olmstead, eds., 1967) [hereinafter I.L.A., COMMENTS].
- (220) *Id.* at 781.
- (221) Commenting on the “watercourse” approach in the 1997 Watercourses Convention, an author notes: “It is evidence that what has to be shared between those upstream and those downstream in a river basin is not the water currently going in the river as the Convention on the Non-Navigational Uses of International Watercourses suggests, but rather the rainfall over the river basin.” *See generally* M. FALKENMARK & J. LUNDQVIST, COMPREHENSIVE ASSESSMENT OF THE FRESHWATER RESOURCES OF THE WORLD (1997).
- (222) Chapter 18 of Agenda 21 thoroughly develops the perception that water is an integral part of the ecosystem and a natural resource the quantity and quality of which determine the nature of its utilization. Recommending states to integrate land and water-related aspects in managing water at the level of the drainage basin or sub-basin, the Chapter places special emphasis on the mutually supportive relationship between the integrated management of water and the principle of sustainability. *See* Agenda 21, *supra* note 197, especially at 18.6, 18.8 & 18.9.
- (223) Natural sciences have proven a tight connection and interdependency between the waters of a river (both underground and surface), and forests and soil in a drainage area. *See* VU TRUNG TANG, QUAN LY CAC HE SINH THAI O NUOC [MANAGEMENT OF BIOLOGICAL SYSTEMS IN WATER] 59 (Hanoi, 1996).

- (224) *See* WEISS, *supra* note 23, at 12 (who indicates that each leaf is a “water storage,” and trees and bushes protect water resources and humidity of soil).
- (225) *See* I.L.A., COMMENTS, *supra* note 219, at 781.
- (226) *See generally* Schwabach, The United Nations Convention, *supra* note 35, at 266.
- (227) *See id.*
- (228) *See* Responses of States to Report of the Secretary General, U.N. Doc. A/51/275 (Aug. 6, 1996) at 10–20, 59–62 & 67–69.
- (229) 1997 Watercourses Convention, *supra* note 34, art. 2(a)(b).
- (230) It should be noted, however, that groundwaters falling under the scope of regulation of the Convention are only those which interact with surface waters, and together flow into a common terminus. “Confined groundwaters” which do not interact with surface waters are excluded from the scope of the Convention. At the conclusion of its work on international watercourses, the ILC adopted a resolution on confined transboundary groundwater in which it recommended that states apply the principles in its draft articles to such groundwater. The Convention, however, is silent on this matter. *See* Report of the International Law Commission on the Work of its Forty-Six Session, U.N. GAOR, 49 Sess., Supp. No. 10 at 197. For a succinct view on confined groundwaters and the implications of their exclusion from the Convention *see* McCaffrey, An Overview, *supra* note 37, at 58.
- (231) According to the ILC, the phrase “groundwaters” refers to the hydrologic system composed of a number of different components through which water flows, both on and under surface of the land. These components include rivers, lakes, aquifers, glaciers, reservoirs and canals. So long as these components are interrelated with one another, they form part of the watercourse. Because the surface and groundwaters form a system, and constitute by virtue of their physical relationship a unitary whole, human intervention at one point may have effects elsewhere within it. *See* ILC, Draft Articles, *supra* note 182, at 90.
- (232) McCaffrey, An Overview, *supra* note 37, at 58.
- (233) McCaffrey & Sinjela, *supra* note 190, at 97.
- (234) *See generally* Stephen McCaffrey, Seventh Report on the Law of the Non-Navigational Uses of International Watercourses, [1991] Y.B. Intl L. Comm’n, 65, U.N. Doc. A/CN.4/SER.A/1991/Add.1 (Part 2).

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- (235) A.D. Mohile, *Brahmaputra: Issues in Development, in SUSTAINABLE DEVELOPMENT OF THE GANGES-BRAHMAPUTRA-MEGHNA BASINS* 58, 69 (Asit K. Biswas & Juha I. Uitto, eds., 2001).
- (236) McCaffrey & Sinjela, *supra* note 190, at 97.
- (237) A.T.M. Shamsul Huda, *Constrains and Opportunities for Cooperation Towards Development of Water Resources in the Ganges Basin in SUSTAINABLE DEVELOPMENT OF THE GANGES-BRAHMAPUTRA-MEGHNA BASINS* 46, 50 (Asit K. Biswas & Juha I. Uitto, eds., 2001).
- (238) Each leaf is a “water storage,” and trees and bushes protect water resources and humidity of soil. *See* Vu Trung Tang, *supra* note 223.
- (239) Three countries (Pakistan, Rwanda and Turkey) who objected the inclusion of groundwaters within the scope of the Convention were concerned more about technical issues rather than not wanting to see groundwaters as part of a watercourse as a whole. Pakistan was concerned that it would be impossible to measure groundwaters precisely. *See* U.N. G.A.O.R., 99th Plenary Meeting, May 21, 1997, U.N. Doc. A/51/PV.99, at 4-5.
- (240) Organized in the Hague, Mar. 17–22, 2000.
- (241) Dr. Patricia Wouters *et al*, *Commentary: The Legal Response to the World’s Water Crisis: What Legacy from the Hague? What Future in Kyoto?*, 4 U. Denv. Water L. Rev. 418, 423 (2001).
- (242) *Id.*
- (243) The term “self-executing” as used here generally denotes a situation that implementation of a norm in a legal instrument requires other norms in the same instrument. It does not refer to what is called “transformation of norms” in international law – a theory employed in addressing the interrelationship between international and domestic legal systems.
- (244) It should be noted that the listing of these factors was the most the drafters could do in this respect, even though attempts were even made to do more: including sustainable development and the needs and interests of future generations as factors to determine an equitable and reasonable use in Article 6. *See* proposal of Finland in U.N. Doc. A/C.6/51/NUW/WG/CRP.18 (1996). For an account of how the Draft Articles were formulated *see* also McCaffrey & Sinjela, *supra* note 190, at 97 *et seq.*
- (245) *See* art. 6(1)(a) which provides for “[g]eographic, hydrographic,

- climatic, *ecological* and other factors of a natural character.” [sic].
- (246) According to the ILC, the term “ecosystem” is used instead of “environment” because the former is more precise, both scientifically and legally than the latter. See ILC, Draft Articles, *supra* note 182, at 118. For more details on discussion of this issue see also I.L.C., *Summary Records of the Meetings of the Forty Second Session, May 1 – Jul. 20, 1990*, 1 Y.B. Int’l L. Comm’n. 281, A/CN.4/SER.A/1990 [hereinafter ILC, Summary Records of 42nd Session] .
- (247) See Speech by Mr. McCaffrey, *supra* note 166, at 123. (who asserts that “[t]he need for a provision on protection of the ecology was born out by the interrelationship between environmental protection and sustainable development...”).
- (248) The adopted version of art. 20 of the Convention uses the same term “ecosystem.”
- (249) ILC, Draft Articles, *supra* note 182, at 118. An ecosystem is commonly defined as a spatial unit of nature in which living organisms and the non-living environment interact adaptively. The Expert Group on Environmental Law of the WCED, in the comment to art. 3 of the principles for environmental protection and sustainable development defines “ecosystems” as “systems of plants, animals and micro-organisms together with the non-living components of their environment.” See WCED EXPERT GROUP ON ENVIRONMENTAL LAW, ENVIRONMENTAL PROTECTION AND SUSTAINABLE DEVELOPMENT: LEGAL PRINCIPLES AND RECOMMENDATIONS 45 (1987).
- (250) See Agenda 21, *supra* notes 197.
- (251) McCaffrey, An Overview, *supra* note 37, at 66.
- (252) See David D. Lazerwitz, *Razvitie Mejdunarodnovo Vodnovo Prava: Zakon Mejdunarodnoi Komixii Prava o Nhenavigaxionom Ixpolzovanii Mejdunarodnux Vodatokov [Development of International Water Law: The Law of the International Law Commission on the Non-Navigational Uses of International Watercourses]* in MEJDUNARODNOE I NAXIONALNOE VODNOE PRAVO I POLITICA [INTERNATIONAL AND NATIONAL WATER LAW AND POLICY] 67,76 (Tashkent, Uzbekistan, 2001).
- (253) See Section 3 in Part III for “drainage basin” and “watercourse” approaches.
- (254) Within the Convention, the terms “conservation” and “preservation”

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have the same meaning and are mutually inclusive. *See* Statement of Understanding, *supra* note 182 (stating that the concept of “preservation” as used in art. 1 and in the Convention generally includes also the concept of “conservation”).

(255) ILC, Draft Articles, *supra* note 182, at 119.

(256) *Id.*

(257) *Id.*

(258) *See id.* at 121.

(259) The broad definition of “pollution” in art. 21 is considered a positive step for environmental protection since it includes a wide scope of activities covered by the Convention. This definition is much wider than those advanced by the Organization of Economic Cooperation in Development (O.E.C.D.) in 1974 which were later adopted in several international agreements. These latter definitions were concerned only human activities, and used narrower terms such as “environment”, “substance” and “adverse impacts” first of all on human beings, but not on the environment generally. *See* Lazerwitz, *supra* note 252, at 76.

(260) *See* ILC, Draft Articles, *supra* note 182, at 121.

(261) *See id.* at 121–2.

(262) Art. 22 requires watercourse states to take all necessary measures to prevent introduction of alien or new species into an international watercourse which may have effect detrimental to the ecosystem of the watercourse. The inclusion of art. 22 was to reflect the concern that definition of “pollution” in art. 21 of the present convention does not cover biological alterations of a watercourse. Thus, art. 22 fills the gap of art. 21 by adding an additional safeguard to a watercourse’s ecosystem. *See id.* at 124.

(263) *See id.* at 122.

(264) *See id.*

(265) *See id.* at 101.

(266) Kent Hughes Butts, *The Strategic Importance of Water*, <<http://carlisle-www.army.mil/usawc/Parameters/97spring/butts.htm>>

(267) *See* PETER GLEICK (ED.), *WATER IN CRISIS: A GUIDE TO THE WORLD’S FRESH WATER RESOURCES 3* (1993).

(268) Peter Gleick, *Water Resources; A Long-Range Global Evaluation*, 20 *Ecology L.Q.* 141, 143 (1993).

(269) *United Nations Comprehensive Assessment of the Freshwater Resources of the World*, E/CN.17/1997/9, at 6.

- (270) See World Commission on Dams (WCD), DAMS AND DEVELOPMENT, A NEW FRAMEWORK FOR DECISION MAKING, <<http://www.dams.org/report/>> at 3 [hereinafter DAMS REPORT].
- (271) For example, the Great Lakes (Canada-U.S.) is declared by the International Joint Commission (a joint water commission of the United States and Canada) as a “nonrenewable resource” because less than one percent of the lakes’ waters are renewed annually by precipitation while diversions of the Lakes’ water have been made at an alarming rate. See Stanley Changnon, *Understanding the Physical Setting: The Great Lakes Climate and Lake Level Fluctuations, in THE LAKE MICHIGAN DIVERSION AT CHICAGO AND URBAN DROUGHT* 39 (Stanley Changnon, ed., 1994).
- (272) See Stephen McCaffrey, *Water, Water Everywhere, But Too Few Drops to Drink: The Coming Fresh Water Crisis and International Environmental Law*, 28 Denv. J. Int’l L & Pol’y 325, 331 (2000). Turkey, for example, has a lot while the Middle East has very little.
- (273) In general international law, the harm prohibited under the no-harm rule covers to a large extent environmental harm. This proposition is, among others, confirmed by two prominent and much cited cases. In *Trail Smelter Arbitration*, a case concerning air pollution but has relevance to water pollution by analogy, the Arbitration Tribunal established by the United States and Canada to adjudicate the case held that 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 properties or persons therein when the case is of serious consequence and the injury is established by clear and convincing evidence. *Trail Smelter Arbitration* (US v. Canada) (1941), 3 RIAA 1911. In the *Legality of the Threat or Use of Nuclear Weapons Case*. The ICJ reasoned that the existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment. *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinions*, 1996 I.C.J. Reports 226 at para. 29. In its commentary to art. 7 of the Draft Articles presented to the General Assembly (1994), the ILC referred to a number of cases regarding environmental harm. See ILC, Draft Articles, *supra* note 182, at 103–5. See also A. Dan Tarlock, *How Well can International Water*

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Allocation Regimes Adapt to Global Climate Change?, 15 J. Land Use & Envtl. Law 423, 435–6 (2000) (noting the environmental aspects of harm provided for in Article 7 of the Watercourses Convention) [hereinafter Tarlock, How Well].

- (274) The example presented in this paragraph is taken from S.C. McCaffrey, *An Overview*, *supra* note 37, at 62.
- (275) *See*, for example, Speeches by Representatives of Turkey, Czech Republic and Ethiopia in the United Nations, U.N. GAOR, 51st Sess., 99th Plenary Meeting, U.N. Doc. A/51/PV.99 (1997) at 4–5, 6 & 10.
- (276) *See* Albert Utton, *Which Rule should Prevail in International Water Disputes: That of Reasonableness or That of No Harm*, 36 Nat. Res. J. 635, 636 (1996).
- (277) A. Dan Tarlock, *How Well Can International Water Allocation Adapt to Global Climate Change?*, 15 J. Land Use & Envtl. Law 423, 435 (2000).
- (278) *Id.*
- (279) *See* Utton, *supra* note 276, at 636.
- (280) *See*, ILC, Draft Articles, *supra* note 182, at 102.
- (281) *See id.* at 103.
- (282) McCaffrey, *An Overview*, *supra* note 37, at 62–63.
- (283) *See*, ILC, Draft Articles, *supra* note 182, at 103.
- (284) The role of special rapporteur, among other things, is to mark out and develop the topic, explain the state of the law, and make proposals for draft articles. *See* ILC Report, ch. VII, para. 189 (1997).
- (285) McCaffrey, *An Overview*, *supra* note 37, at 63.
- (286) *See id.* at 64.
- (287) *See* art. 10 of the Convention (stating that no use of an international watercourse enjoy a priority over other uses; and in the event of a conflict, the latter will be resolved with reference to arts. 5–7 of the Convention).
- (288) McCaffrey, *An Overview*, *supra* note 37, at 64.
- (289) *See* Charles Bourne, *The Primacy of the Principle of Equitable Utilization in the 1997 Watercourses Convention*, 1997 Canadian Y.B. Int'l L. 215, 224.
- (290) Tarlock, *How Well*, *supra* note 273, at 435.
- (291) In 1970, Finland proposed the inclusion of an item in the agenda of the U.N.G.A. entitled the “Progressive Development and Codification of the Rules of International Law Relating to

- International Watercourses.” The ILC was requested to study the issue, and did in fact start the work in 1971. *See* Note Verbal Dated Apr. 24, 1970 from the Permanent Mission of Finland to the United Nations Addressed to the Secretary-General, U.N. GAOR, 25 Sess., U.N. Doc. A/7991 (1970).
- (292) *See* Pamela LeRoy, *Troubled Waters: Population and Water Scarcity*, 6 *Colo. J. Int’l Envtl. L. & Pol’y* 299, 317 (1995) (citing World resources Institute, *World resources 1992–93* at 171 (1992)).
- (293) *See* 1969 Vienna Convention on the Law of Treaties, 8 *I.L.M.* 679 (1969) (art 32 stating that the *travaux preparatoire* of a treaty could serve as a supplementary source for the treaty’s interpretation).
- (294) Utton, *supra* note 276, at 639.
- (295) McCaffrey, *An Overview*, *supra* note 37, at 71.
- (296) *See* U.N. GAOR, 51 Sess. 99 Plen. Mtg., U.N. Doc. A/51/PV.99 (1997), at 2.
- (297) 1997 Watercourses Convention, *supra* note 34, art. 36.
- (298) McCaffrey, *An Overview*, *supra* note 37, at 71.
- (299) *Id.*
- (300) RANDOM HOUSE WEBSTER’S COLLEGE DICTIONARY 1162 (1991).
- (301) Asit K. Biswas, *Management of International Waters: Opportunities and Constraints*, in *SUSTAINABLE DEVELOPMENT OF THE GANGES-BRAHMAPUTRA-MEGHNA BASINS* 1, 15 (Asit K. Biswas & Juha I. Uitto, eds., 2001).
- (302) Early records of at least 4,500 years ago bring to our attention a water war between two ancient states which, in the end, had to end with a treaty. HEATHER L. BEACH *ET AL.*, *TRANSBOUNDARY FRESHWATER DISPUTE RESOLUTION* 46 (2000). Historians have found a treaty to end a water war between the ancient Mesopotamian states of Lagash and Umma. For more details *see* JERROLD COOPER, *RECONSTRUCTING HISTORY FROM ANCIENT INSCRIPTIONS: THE LAGASH-UMMA BORDER CONFLICT* (1983).