



A1 - Integrating Environmental Concerns in International Water Law

Author: Stephen C. McCaffrey

Scope: International water law, in its broadest sense, concerns all issues that may arise in respect of the sustainable use, enjoyment, and preservation of watercourses shared by two or more States. These issues include protection of the watercourse, allocation of its waters, and assurance of navigation. International water law also sets out the procedural rules necessary to preserve the equality of rights between the parties to allocation of water quantities and to protect watercourse ecosystems.

This class focuses on the ways in which environmental considerations are integrated into the general framework of international water law that is binding upon all States sharing a watercourse with one or more other States.

The class also shows how the basic principles of international water law include requirements for considering environmental and fluvial ecosystem protection, consistent with the general sustainability principles established by the Multilateral Environmental Agreements (MEAs).

Purpose: The class aims to achieve an understanding on the part of the participants of how the basic principles of international water law incorporate environmental considerations and to give a general understanding of how this has been demonstrated, in particular in relevant case law.

Methodology: The purpose of the class will be achieved by an introductory lecture followed by practical group exercises.

Site: UNITED NATIONS INFORMATION PORTAL ON MULTILATERAL ENVIRONMENTAL AGREEMENTS

Course: The "Greening" of Water Law: Implementing Environment-Friendly Principles in Contemporary Water Law

Book: A1 - Integrating Environmental Concerns in International Water Law

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1. Class Overview

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2. Key Points

- The basic principles of contemporary water law are reflected in the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses (“UN Watercourses Convention”).
- A more detailed treaty, also now open to global participation, is the 1992 United Nations Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention), which focuses on the avoidance of transboundary environmental impact.
- The basic obligation of equitable and reasonable utilization of international watercourses incorporates principles of sustainable water use and protection of the watercourse.
- It follows from this that the ecosystems of international watercourses must be protected and preserved, as provided by the UN Watercourses Convention and the UNECE Water Convention.
- Decisions of international courts and tribunals have also recognized that modern environmental principles are part of international water law.
- These principles include the use of international watercourses in a way that respects the environment; the need to ensure that at least minimum environmental flows are released through dams; the obligation to conduct environmental impact assessments in respect of activities posing a risk of causing transboundary harm; and the obligation to avoid causing significant transboundary harm through the medium of international watercourses.
- International courts and tribunals have been interpreting treaties in an evolutionary manner, allowing them to apply current principles to disputes involving older treaties.

3. Introduction



3.1. Definitions

“International water law” is shorthand for “the law of the non-navigational uses of international watercourses.” This class focuses on non-navigational uses of international watercourses rather than navigational ones.

The UN Watercourses Convention defines the term “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.”[1]

It then defines “international watercourse” as “a watercourse, parts of which are situated in different States”[2]

The UNECE Water Convention defines “Transboundary waters” as “any surface or ground waters which mark, cross or are located on boundaries between two or more States; wherever transboundary waters flow directly into the sea, these transboundary waters end at a straight line across their respective mouths between points on the low-water line of their banks”[3]

[1] UN Watercourses Convention, Art. 2(a).

[2] Ibid., Art. 2(b).

[3] Art. 1(1).

3.2. The Importance of Groundwater

It is important to note that both of these treaties include groundwater in their definitions of the regulated subject matter. Globally, groundwater is the largest source of fresh water available for human use, constituting around 30.8% of all fresh water on Earth. Surface water contained in lakes and rivers constitutes only about 0.3% of Earth's fresh water, the remainder (approximately 68.9%) being frozen in ice caps (the Antarctic, the Arctic, and Greenland) and glaciers (UNEP, Vital Water Graphics).

While the two global conventions include groundwater within their scope, it is addressed specifically in the Draft Articles on the Law of Transboundary Aquifers adopted by the International Law Commission in 2008.

3.3. The Impact of Climate Change

The Intergovernmental Panel on Climate Change (IPCC) has found that climate change is affecting hydrological systems.

Specifically, the IPCC has concluded that over the 21st century, “climate change ... is projected to reduce renewable surface water and groundwater resources significantly in most dry subtropical regions.”[1]

This is true of surface water and groundwater contained in international watercourse systems as well. This highlights the need for proactive planning by co-riparian States, particularly in dry subtropical regions.

But all States sharing freshwater resources will need to plan to meet the altered conditions brought about by climate change, including floods, droughts, and altered seasonality of flow patterns.

Since around 60% of the world’s freshwater is situated in internationally-shared drainage basins, the need for cooperation and observance of the rules and principles of international water law will only increase as the era of climate change continues.[2]

[1] IPCC, AR 5, WG II, SPM. p. 14.

[2] UNEP Atlas of International Freshwater Agreements, p. 2; additional statistics in UNEP, The Greening of Water Law: Managing Freshwater Resources for People and the Environment, p. 30.

3.4. Increasing Competition for Freshwater Resources

Competition and conflicts over shared freshwater resources are likely to increase, due to:

1. The fact that the amount of water on Earth is finite and has been the same for billions of years; while
2. The human population continues to increase. The UN forecasts that it could reach 9.7 billion by 2050 and 11.2 billion by 2100.

Most of this growth continues to occur in developing countries, especially those in Africa and Asia.

3.5. The Need for a Normative Framework Governing Shared Freshwater Resources

To prevent conflict over shared freshwater resources and manage the phenomena that precipitate it, and more fundamentally to protect a vital component of the human life-support system, a normative framework is needed that:

1. Contains principles and rules concerning the sustainable use of shared freshwater resources; and
2. Protects the environment of international watercourses and their ecosystems to ensure that human uses of them are sustainable.

Such normative frameworks are contained in the UN Watercourses Convention and the UNECE Water Convention.

This class will review the main principles contained in these instruments, showing how the basic norms of international water law include requirements for the sustainable use of shared freshwater resources.

The “greening of water law” refers to a process of integrating environmental concerns into water management priorities and decision-making practices.[1]

This class focuses on the greening of water law on the international level.

[1] UNEP, *The Greening of Water Law: Managing Freshwater Resources for People and the Environment*, p. 30.

3.6. The “Greening” of International Law Generally

In its judgment in the *Gabčíkovo-Nagymaros Project* case,[1] the International Court of Justice (ICJ) stated as follows:

“The Court recalls that it has recently had occasion to stress, in the following terms, the great significance that it attaches to respect for the environment, not only for States but also for the whole of mankind:

‘the environment is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn. 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 Opinion, I.C.J. Reports 1996*, pp. 241-242, para. 29.)”[2]

The latter statement, originally made in the ICJ’s *Nuclear Weapons* advisory opinion but applied by the Court to a case involving the Danube River in *Gabčíkovo*,

- Stresses the great significance that the Court attaches to respect for the environment, and
- Recognizes a general obligation of States under customary international law to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control.

The ICJ and other tribunals have since built upon these principles, as we will see later.

Such statements by the ICJ, in particular, are of key importance because there is no more authoritative source than the Court on what constitutes general (customary) international law, which is binding on all States.

[1] 1997 ICJ Reports p. 7

[2] As quoted in *Gabčíkovo*, I.C.J. Reports 1997, p. 41, para. 53.

4. International Water Law: Introduction and the General Normative Framework



4.1. The UN Watercourses Convention: Provenance

In 1970, the UN General Assembly tasked the UN International Law Commission (ILC) with studying “The Law of the Non-Navigational Uses of International Watercourses.”

The ILC, whose mission is the codification and progressive development of international law, began work on this project in 1974. After 20 years of study, the ILC transmitted to the General Assembly a complete set of draft articles on the international watercourses topic in 1994. The ILC recommended that the Assembly convene a diplomatic conference for the purpose of negotiating a convention on the basis of the draft articles.

The General Assembly convened a conference at UN Headquarters in New York in 1996 for that purpose. All UN member States and other interested States were invited to participate. The negotiations were concluded in 1997.

The States negotiating the Convention made only a few changes to the ILC’s draft.

On 21 May 1997 the Assembly adopted the Convention on the Law of the Non-Navigational Uses of International Watercourses.

Largely because of this process by which the Convention was produced, the basic provisions of the Convention are generally regarded as codifications of the rules and principles of customary international law concerning international watercourses.

The ICJ relied on and quoted from provisions of the Convention in its judgment in the *Gabčíkovo* case four months after the Convention was concluded (and years before it entered into force, in 2014), evidencing its authoritative value.

4.2. The Most Basic Obligations Reflected in the Convention

The most basic obligations reflected in the Convention are:

- Equitable and reasonable utilization (Art. 5);
- Prevention of significant harm (Art. 7); and
- Prior notification of planned projects (Arts. 11-19).

These obligations are supported by other important ones, first and foremost the general obligation to cooperate (Art. 8) and others such as the obligation to share data and information on a regular basis (Art. 9).

Corresponding provisions in relation to shared groundwater resources are contained in the ILC's articles on the Law of Transboundary Aquifers, adopted by the ILC in 2008 and noted by the UN General Assembly.[1]

It should be emphasized, however, that all groundwater that is related to surface water – which includes most of the groundwater on Earth – is covered by the UN Watercourses Convention.

[1] UNGA Res. A/RES/63/124, 11 Dec. 2008

5. How International Water Law Incorporates Environmental Concerns



5.1. Rules Reflected in Global Treaties

Perhaps the most fundamental of all of the obligations reflected in the UN Watercourses Convention is that of equitable and reasonable utilization. This requires that a State uses and manages an international watercourse in a manner that is equitable and reasonable vis-à-vis its co-riparian States. It is the cornerstone of the UN Watercourses Convention.

Consideration of the way in which the obligation is formulated shows that it incorporates “green” principles:

“Article 5

Equitable and reasonable utilization and participation

1. Watercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining optimal and sustainable utilization thereof and benefits therefrom, taking into account the interests of the watercourse States concerned, consistent with adequate protection of the watercourse.
2. Watercourse States shall participate in the use, development and protection of an international watercourse in an equitable and reasonable manner. Such participation includes both the right to utilize the watercourse and the duty to cooperate in the protection and development thereof, as provided in the present Convention.”[1]

Thus, part of the obligation of equitable and reasonable utilization is the duty to protect the watercourse and use it in a sustainable manner.

The duty to cooperate in the affirmative protection of an international watercourse, as provided in paragraph 2, is particularly important where shared freshwater is concerned. This is especially to avoid the “tragedy of the commons” phenomenon.

Thus, the obligation of equitable and reasonable utilization incorporates within it the duty to use shared freshwater resources sustainably and to ensure that international watercourses are protected from harm, including degradation.

These obligations are applied in specific contexts in later provisions of the UN Watercourses Convention, Articles 20-23. We will focus here on Article 20, which provides as follows:

“Article 20

Protection and preservation of ecosystems

Watercourse States shall, individually and, where appropriate, jointly, protect and preserve the ecosystems of international watercourses.”

It will be noted that nothing in Article 20 requires that a particular watercourse ecosystem be transboundary; it must only be part of a watercourse system that is international, as defined earlier.

Article 20 therefore contains a strong obligation of protection and preservation of the ecosystems of international watercourses, which consist of both living and non-living components.

Articles 21-23 cover the following topics:

- Article 21: Prevention, reduction and control of pollution (of international watercourses).
- Article 22: (Prevention of) Introduction of alien or new species (into international watercourses).
- Article 23: Protection and preservation of the marine environment (from harm via international watercourses).

The UNECE Water Convention has as its principal object and purpose the avoidance of “transboundary impact.”

“Transboundary impact” is defined in part as:

“any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party, within an area under the jurisdiction of another Party. ...”

The expression “effects on the environment” is given broad meaning.

This treaty was concluded by ECE Member States in 1992 and has been in force since 1996. It explicitly requires the avoidance of adverse environmental effects on transboundary freshwater resources. Originally intended as a treaty applicable to the ECE region, it is now (since 1 March 2016) open to global participation – i.e., accession by UN-member States outside the ECE region.

While taking different approaches, the UN Watercourses Convention and the UNECE Water Convention are fully compatible and mutually supportive.

Both treaties require protection of international watercourses and their ecosystems and sustainable use of internationally shared freshwater resources.

[1] UN Watercourses Convention, Art. 5.

5.2. The Contributions of International Courts and Tribunals

International courts and tribunals have contributed to the greening of international water law.

We have seen that in the *Gabčíkovo-Nagymaros Project* case, the ICJ recognized the importance of respect for the environment. This case involved a water project including a series of dams on a portion of the Danube shared by Hungary and Czechoslovakia. Slovakia assumed responsibility for the project upon its independence on 1 January 1993). The court recognized a general obligation of States under customary international law to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control.

In *Pulp Mills on the River Uruguay* case (Argentina v. Uruguay), the ICJ confirmed the principle of prevention of transboundary environmental harm. The Court found that general international law now recognizes an obligation to prepare a transboundary environmental impact assessment where there is a risk of transboundary harm.[1]

In the *Case concerning Construction of a Road along the San Juan River (Nicaragua v. Costa Rica)*, the ICJ reaffirmed the principle of prevention of transboundary environmental harm. The Court underlined the existence of the obligation to prepare transboundary impact assessments.[2]

These and related principles were recognized in a major arbitration concerning the Indus River, the *Indus Waters Kishenganga Arbitration (Pakistan v. India)*. The tribunal interpreted the 1960 Indus Waters Treaty in an evolutionary way. It recognized that the obligation not to cause transboundary environmental harm was part of general international law. This obligation therefore required that India release a minimum environmental flow through its dam.[3]

[1] *Pulp Mills*, 2010 I.C.J. p. 14.

[2] 16 Dec. 2015, icj-cij.org.

[3] Final Award, 20 Dec. 2013, pca-cpa.org.

5.3. The Basic Principles of International Water Law expressed in Treaties and Case Law are in Conformity with the Relevant MEAs

The principles of International Water Law reflected in treaty and case law are consistent with those established by the relevant MEAs. This is true, for example, of the following agreements:

- The 1971 Ramsar Convention on Wetlands of International Importance, which provides for the wise use of wetlands. Parties have defined this as “the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development.”
- The 1992 UN Framework Convention on Climate Change (UNFCCC), which requires the Parties to cooperate in adapting to impacts on water resources.[1]
- The 1991 ECE Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention), which requires parties to assess the transboundary environmental impacts of proposed projects. This mirrors the requirement found by the ICJ to exist under general international law in *Pulp Mills*.
- The 1992 Convention on Biological Diversity, whose Parties have launched a programme on inland waters and their ecosystems. Other treaties, such as the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the 2001 Stockholm Convention on Persistent Organic Pollutants, and the 1979 Bonn Convention on Migratory Species.[2]

[1] UNFCCC, Art. 4.1(e).

[2] UNEP, *The Greening of Water Law: Managing Freshwater Resources for People and the Environment*, p. 29

6. Conclusions

1. International water law largely incorporates basic environmental principles and approaches. Compliance by States with these principles may be less than perfect, as is true in other fields. However, this does not negate the existence of the principles.
2. These principles are constantly evolving as they are interpreted and applied by States and by international courts and tribunals.
3. International water law may therefore be said to be “green”. Its greening is constantly evolving.

7. References

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