



# C1 - No Significant Harm, Pollution Prevention and Quality Standards

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*Scope:* The class is devoted to the “no significant harm” principle. In particular, we discuss the prevention, reduction and control of pollution as a means to prevent transboundary impacts. The class addresses the manner in which the principle is implemented at the (international) basin level and at the national level of the basin states concerned. The focus is on surface water resources, since a specific module – Module E – is devoted to the protection of groundwater systems.

*Purpose:* The class aims at building an understanding of (a) the principles underlying the prevention, reduction and control of pollution of transboundary water resources, (b) legal and institutional requirements to implement the principles, and (c) the legal and institutional tools available to prevent, reduce and control pollution of transboundary water resources at the basin level and within the national contexts of the states concerned.

*Methodology:* Among other topics, the class covers the following: (a) definitions; (b) the “no significant harm” principle, its foundation, evolution and sources, and its relationship with the “equitable and reasonable use principle”; (c) prevention, reduction & control of pollution in international law; and (d) prevention, reduction and control of pollution according to domestic legislation. The presentation is followed by a group exercise focusing on pollution control. The exercise concerns a river basin scenario in which the stakeholders (selected ones for each country) first decide internally what they want to do with their waters and then negotiate on the basis of the materials they are given. The materials distributed will cover international and regional agreements, such as the UN Watercourses Convention, the United Nations Economic Commission for Europe (UNECE) Water Convention, the European Union (EU) Water Framework Directive and the 2000 Southern African Development Community (SADC) Revised Protocol, selected treaties, and selected national laws.

Site: UNITED NATIONS INFORMATION PORTAL ON MULTILATERAL ENVIRONMENTAL AGREEMENTS

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

Book: C1 - No Significant Harm, Pollution Prevention and Quality Standards

# Table of contents

1. Key issues
2. Introduction
3. The Obligation Not to Cause Significant Harm
  - 3.1. Foundation, evolution and sources
  - 3.2. No significant harm vs. equitable and reasonable utilization
4. Prevention, Reduction and Control of Pollution in International Law
  - 4.1. The UN Watercourses Convention
  - 4.2. United Nations Economic Commission for Europe (UNECE) Water Convention
  - 4.3. Agreements on transboundary water resources
5. Prevention, Reduction and Control of Pollution Within National Contexts
  - 5.1. Prevention, Reduction and Control of Pollution Within National Contexts (Contd)
  - 5.2. Prevention, Reduction and Control of Pollution Within National Contexts (Contd)
6. Conclusion

# 1. Key issues

- Appropriateness of measures to prevent significant harm
- Common approaches, including water quality objectives and standards
- Harmonization of national legal and institutional frameworks
- Relationship between prevention of pollution at source and water quality standards
- Institutional fragmentation

## 2. Introduction

States sharing transboundary water resources, also known as watercourse states, have an obligation to prevent, reduce and control water pollution. This results from the general obligation not to cause significant harm to territories of neighbouring states, which is codified in Art. 7 of the 1997 UN Watercourses Convention (UNWC). It has been embodied in a number of transboundary water agreements. Its implementation requires actions by states based on harmonized approaches supported by national legislation and adequate institutional arrangements. The obligation is well consolidated in both industrialized and non-industrialized regions.

### 3. The Obligation Not to Cause Significant Harm



### 3.1. Foundation, evolution and sources

The obligation not to cause significant harm is also known as the “no significant harm rule”. This obligation is widely considered, together with the principle of “equitable and reasonable utilization”, as one of the main pillars of international customary water law. The obligation has its foundations in the theory of limited territorial sovereignty. According to this theory, each watercourse state is entitled to use the waters of the watercourse within its territory on condition that it takes into consideration the rights and interests of the other watercourse states. Thus, watercourse states have equal rights, but also reciprocal obligations. The physical unity of a watercourse creates a unique legal unity as well. This unity leads to the formation of a “community of interests,” as stated in 1929 by the Permanent Court of International Justice (PCIJ) in the *Territorial Jurisdiction of the International Commission of the River Oder Case* and, in 1997 by the International Court of Justice (ICJ) in the *Gabcikovo-Nagymaros Case*.

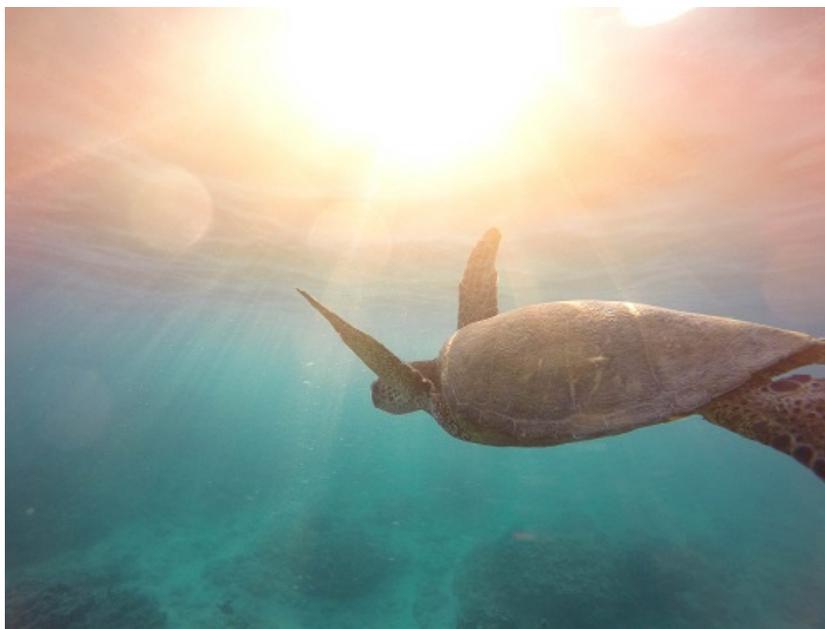
The obligation not to cause significant harm is an obligation of conduct based on the standard of due diligence. The appropriateness of the measures that watercourse states should take to prevent the harm depends on the states’ capabilities in terms of financial, human and other resources. The harm must be “significant”. It must not be trivial, but rather capable of being established by objective evidence without having to be substantial. As to the evolution and sources of the obligation, reference is made to:

- the *Trail Smelter Case* (International Joint Commission 1938): “... no state has the right to use or permit to use its territory when the case is of serious consequences and the injury is established by clear and convincing evidence.”
- The *Lake Lanoux Case* (ICJ 1957): there is an “interdiction prohibiting a state upstream to alter the water of a river in such condition as to cause substantial damage to the downstream states.”
- Principle 21, Stockholm Declaration (1972): “States have... the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”
- Art. 3, UN Convention on Biological Diversity (1992): “States have... the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.”
- Art. 2.1, 1992 United Nations Economic Commission for Europe (UNECE) Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention): “The Parties shall take all appropriate measures to prevent, control and reduce any transboundary impact.”
- Art. 7.1, UNWC: “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.”

### 3.2. No significant harm vs. equitable and reasonable utilization

The question of which of the two principles has priority over the other has been the subject of lengthy and heated debate during the discussion of the text of the UNWC. Upstream states supported the principle of equitable and reasonable utilization because it provides scope for developments with possible adverse impact downstream. Downstream states favoured the “no harm rule”, since it protects their existing rights against the effects of activities in upstream states. The drafters of the UNWC adopted a compromise solution. The UNWC requires the state that causes significant harm to take measures to eliminate or mitigate such harm “having due regard to Articles 5 and 6” (Art. 7.2). In parallel with this, when determining what is equitable and reasonable under Art. 5, states are required to consider the effects of their intended water uses on other watercourse states (Article 6.1.d).

#### 4. Prevention, Reduction and Control of Pollution in International Law



#### 4.1. The UN Watercourses Convention

The obligation to prevent, reduce and control pollution is stated in Art. 21 of the UNWC. Art. 21.1 contains a definition of “pollution” that accommodates a wide range of situations. It considers that development may cause changes in the types and effects of pollution: pollution “means any detrimental alteration in the composition or quality of the waters of an international watercourse which results directly or indirectly from human conduct”. Thus, states “shall, individually and, where appropriate, jointly, prevent, reduce and control the pollution of an international watercourse that may cause significant harm to other watercourse states and their environment, including harm to human health or safety, to the use of the waters for any beneficial purpose or to the living resources of the watercourse” (Art. 21.2).

The obligations of watercourse states set out in the last sentence of Art. 21.2 and in Art. 21.3 (regarding consultation) reflect consolidated state practice. The obligation to harmonize policies stems from recognition that pollution may neither be prevented, nor reduced, nor controlled, if the states sharing a transboundary water resource apply different policies or standards. The duty to consult with a view to arriving at agreed measures and methods results from the general obligation to cooperate stated in Art. 8 of the UNWC. Art. 21.3 enumerates only few of the measures that are subject to consultation and mutual agreement, leaving watercourse states free to decide on what best suits the specific context of the watercourse. These measures relate to: “(a) the setting of joint water quality objectives and criteria; (b) the adoption of techniques and practices to address pollution from point and non-point sources; and (c) the establishment of lists of substances the introduction of which into the waters of an international watercourse is to be prohibited, limited or monitored.”

## 4.2. United Nations Economic Commission for Europe (UNECE) Water Convention

The obligation to prevent, reduce and control pollution may be found in a number of agreements on transboundary water resources worldwide. It becomes more articulated where the incidence of pollution is high and there is a concrete risk of new pollution, such as in the case of industrialized regions. The UNECE Water Convention of 1992 focuses on the prevention, control and reduction of transboundary impacts (Art. 2) having regard mainly to pollution and emergency situations. The convention applies within the UNECE region (Europe, Central Asia, North America and Israel). However, following the adoption of amendments in 2003 (in force since 2013), the UNECE Water Convention is open to accession by UN member states outside the original UNECE region. Thus, the UNECE Water Convention may be also considered as a global legal instrument. Part I of the UNECE Water Convention (Arts. 2-8) concerns the Parties to the Convention in general. Part II (Arts. 9-16) relates to riparian parties, i.e., the “parties bordering the same transboundary waters” (Art. 1.4).

The obligation of the Parties to the UNECE Water Convention to prevent, control and reduce transboundary impacts (Art. 2) relates to the implementation of legal, administrative, economic, financial and technical measures to ensure:

- the prevention, control and reduction of pollution at source, through the licencing of wastewater discharges indicating emission limits (based on best available techniques) and the application of low- and non-waste technology (Art. 3.1., a, b and c);
- at a minimum, biological treatment for municipal wastewater (Art. 3.1.e);
- the application of best environmental practices for the reduction of pollution from diffuse sources (Art. 3.1.g);
- total or partial prohibitions in respect of hazardous substances (Art. 3.2).

The Parties are also obligated to set water quality objectives and criteria, for which the UNECE Water Convention provides guidance at Annex III (Art. 3.3), to establish water resources monitoring programmes (Art. 4), to cooperate in research and development (Art. 5) and to exchange information (Art. 6). At Art. 2.5, the UNECE Water Convention indicates that the precautionary principle, the principle of inter-generational equity and the polluter-pays principle should guide the Parties in the implementation of measures.

Obligations of riparian parties (Part II of the Convention) relate in the first place to the conclusion of agreements, where these do not exist, to define their mutual relations (Art. 9). These agreements *must* provide for the establishment of joint bodies to perform the tasks specified at Art. 9.2. The joint bodies are mandated to set up inventories of pollution sources, elaborate joint water quality objectives and criteria, elaborate emission limits for pollutants, elaborate joint monitoring programmes and action programmes, and facilitate the exchange of information. It is to be noted that under Art. 8.2 of the UNWC, the setting up of joint bodies such as commissions is only optional.

### 4.3. Agreements on transboundary water resources

The UNECE Water Convention has informed a number of transboundary water agreements, particularly in Europe. These agreements include those for the Danube (1994), the Rhine (1999), the Scheldt (2002), the Meuse (2002), the Sava (2002) and Lake Prespa (2010). The agreements contain detailed provisions on state obligations in respect of the prevention, reduction and control of pollution. Some of them reflect the concern to implement the EU Water Framework Directive (WFD), which since 2000 is mandatory for EU member and candidate states.

The obligation to prevent, reduce and control pollution is also well consolidated in other regional contexts. Many transboundary water agreements have been concluded in Southern Africa under the umbrella of the SADC Protocol, which was revised in 2000 to reflect the provisions of the UNWC. These agreements include those concerning the Okavango (1994), the Orange-Senqu (2000), the Incomati-Maputo (2002), the Limpopo (2003) and the Zambezi (2004). Elsewhere in Africa, several agreements have also been or are in the process of being concluded. Agreements dealing with the Nile (2010), Lake Victoria (2003), and the Congo (1999 and 2007) are examples, while the existing agreements on the Senegal, the Niger and Lake Chad have been supplemented in 2002, 2002 and 2012, respectively. All of these agreements obligate the states concerned to prevent, reduce and control pollution. The more recent they are, the more they tend to be detailed as to the measures to be implemented by states. But, their main focus is on the need for common approaches and the harmonization of actions by the states concerned.

As for South America, it is worth mentioning the obligation to prevent pollution contained in Art. 41 (a) the Statute of the Uruguay River (1975). This obligation was invoked by the ICJ in the *Pulp Mills Case* (2010) to assert the obligation of Uruguay to notify Argentina of the Pulp Mills undertaking and to carry out an environmental impact assessment.

## 5. Prevention, Reduction and Control of Pollution Within National Contexts

Within national contexts, the obligation to prevent, reduce and control water pollution is typically implemented through the control of pollution at source, the setting of water (ambient) quality standards, and economic instruments. Thus, domestic legislation subjects wastewater discharges to given conditions attached to the relevant permits. These conditions relate to the duty of the holder of a permit to observe certain emission limits (effluent standards), which are defined for the specific substances to be discharged with reference to the receiving medium. The permit holder will have to treat the effluent in such a manner as not to exceed the set limits. The duty to monitor the effluent and report to the appropriate authority at defined intervals is also part of the permit conditions.

In parallel with this, domestic legislation provides for the setting of water (ambient) quality standards. This refers to the values not to be exceeded for given substances if the desired quality of a water body is to be maintained, and water quality objectives, which designate the quality target to be achieved. Compliance with the conditions attached to a wastewater discharge permit is measured against the quality standards set for the receiving medium.

## 5.1. Prevention, Reduction and Control of Pollution Within National Contexts (Contd)

Domestic legislation subjects permit holders to the payment of polluter fees in application of the “polluter-pays principle”. Fee rates may vary depending on the amount and concentration of pollutants and the site of discharge, among other factors. Legislation may also provide for economic incentives for those applying low-waste technologies or take other measures aiming at reducing pollution.

Finally, domestic legislation requires that water resources quality be regularly monitored and assessed in order to determine whether deterioration warrants the limitation of wastewater discharges (more stringent emission limits), or other measures. However, institutional fragmentation often constrains the achievement of this objective, by resulting in different outcomes.

Pollution from non-point sources (diffuse pollution) concerns agriculture in particular. Thus, the focus of legislation has been on the control of land uses and on regulating the manufacture, import and use of chemicals such as fertilizers and pesticides. The EU 1991 Nitrates Directive mandates EU member states to designate nitrate-sensitive areas and implement, in these areas, codes of good agricultural practices.

## 5.2. Prevention, Reduction and Control of Pollution Within National Contexts (Contd)

EU member states have strived towards the implementation of a common approach to pollution prevention, reduction and control, in line with the EU WFD of 2000. EU directives are supranational legal instruments. While they do not have the status of international agreements, they bind member states to implement measures to attain specified objectives in accordance with specified time schedules. EU directives must be transposed by the states into their legal systems within set deadlines. The objective of the WFD is to achieve good ecological status for all waters in the EU (by 2015), through a progressive reduction, cessation or phasing out of pollution from certain substances. Lists of “priority” substances were appended to the WFD, but have been subsequently updated.

The WFD provides guidance to member states with regard to the classification of water bodies, the setting of environmental quality objectives (Art. 4), and the standardization of monitoring, sampling & analysis methods (Art. 8). Further, it provides for a definition of quality standards with reference to the priority substances (Art. 16.7 and 16.10). The WFD is to be implemented within the framework of “river basin districts” through six-year planning cycles and programmes of measures. The first planning cycle ended in 2015, and the second planning cycle extends from 2015 to 2027. The WFD has been supplemented by other directives, including a 2008 directive on environmental quality standards.

## 6. Conclusion

The obligation to prevent, reduce and control water pollution in order to avoid doing significant harm to neighbouring territories is well established in international law. It implies a duty for the states sharing transboundary water resources to cooperate through consultation, with a view to arriving at mutually agreeable measures and methods. The measures and methods agreed upon will be complex, depending on the issues to be addressed and on social and economic realities. It is essential that the states adopt common objectives, standards and approaches. States should harmonize their legal and institutional frameworks, particularly with regard to standard setting, the control of pollution at source, the monitoring of water quality and the exchange of data and information, on the basis of which they will be able to plan water quality and to implement protection or improvement measures, as necessary. The approach adopted in Europe under the WFD umbrella provides a good example of such harmonization.