

THE GABČÍKOVO-NAGYMAROS PROJECT CASE JUDGMENT: 25 YEARS ON

Buds to Blossom Later

The Precautionary Principle, Environmental Impact Assessment and Intergenerational Equity in the Gabčíkovo-Nagymaros Project Case and Thereafter

*Boldizsár Nagy**

Abstract

Why did the ICJ fail to apply the precautionary principle, the duty to conduct environmental impact assessment and the respect for intergenerational equity in the Gabčíkovo-Nagymaros Project Case in 1997? Why and how has it circumvented these concepts/principles then, most of which later emerged in its subsequent jurisprudence – that is the central question of this article. It reviews the international legal status of these concepts before the judgment was adopted in 1997, the arguments of the parties in the written and oral pleadings referring (or not) to these concepts and the “afterlife” of the three concepts/principles, showing that in the 25 years after the judgment environmental impact assessment became a firmly established international legal obligation, the precautionary principle exerts stronger influence but is still somewhat debated as to its precise content, especially outside the EU and intergenerational equity (fairness to future generations) has remained a guiding principle upon which no direct claim may be based, but that may change soon in light of the climate litigation reviewed. The hardly visible undercurrent of the text suggests that had these concepts/principles been adopted by the international community by 1997, the ICJ could have reached a different conclusion. But time was not ripe for that in 1997.

Keywords: ICJ, Gabčíkovo-Nagymaros judgment, intergenerational equity, international environmental law, precautionary principle.

“When technical questions are discussed, in particular concerning cases related to environmental protection, it seems to me that the files constituted by the parties are abusively technical and abstruse – or in any case, incomprehensible for

* Boldizsár Nagy: associate professor of law, Central European University, Vienna; counsel of Hungary at the ICJ during the Gabčíkovo-Nagymaros litigation.

normally constituted jurists who have only limited training in chemistry, geology or hydrographics.” (Alain Pellet, 2008)¹

1. Mapping the Subject

This article represents a dialogue² with the judgment of the ICJ in the *Gabčíkovo-Nagymaros Project Case*³ and its impact (or lack of it) on the use of three inter-related concepts: the environmental impact assessment (EIA), the precautionary principle and intergenerational equity, that is the position of future generations. As such, it does not aim at an overall analysis of the judgment or its impact. That

1 Alain Pellet, ‘The Anatomy of Courts and Tribunals’, *The Law and Practice of International Courts and Tribunals*, Vol. 7, Issue 3, 2008, p. 282.

2 The author was involved in the dispute on the Hungarian side between 1989 and 2010, including as counsel for Hungary in the ICJ case. Therefore, the interpretation of the judgment proposed in this article is not of the impartial observer but of someone who fully identifies with the standpoint the Hungarian party represented before the ICJ, and whose preferences coincided with those of the Hungarian Government as expressed before the litigation, during it and – with a year break in 1997-1998 – during the negotiations on the implementation of the judgment until 2010. Naturally, every effort is made to remain faithful to the facts and only to offer possible interpretations within the established.

3 ICJ, *Case concerning the Gabčíkovo-Nagymaros Project (Hungary v Slovakia)*, judgment, ICJ Reports 1997, p. 7.

has been accomplished by many scholars elsewhere,⁴ including the present author.⁵

- 4 From the early literature the five articles ('Symposium: The Case Concerning the Gabčíkovo-Nagymaros Project') published in Vol. 8, Issue 1, 1998 of the *Yearbook of International Environmental Law* should be mentioned. The *Leiden Journal of International Law* produced a "thematic issue" (Vol. 11, Issue 2, 1998). Case notes appeared in several journals, including the *American Journal of International Law* (by Peter H. F. Bekker, Vol. 92, Issue 2, 1998, pp. 273-278), the *International and Comparative Law Quarterly* (by Phoebe N. Okowa, Vol. 47, Issue 3, 1998, pp. 688-697). From the ensuing literature a narrow selection would include: Daniel Reichert-Facilides, 'Down the Danube: the Vienna Convention on the Law of Treaties and the Case concerning the Gabčíkovo-Nagymaros Project', in Scott Davidson (ed.), *The Law of Treaties*, Ashgate, Dartmouth, 2004, pp. 474-494; Philippe Sands, 'Watercourses, Environment and the International Court of Justice: The Gabčíkovo-Nagymaros Case', in Salman M.A. Salman & Laurence Boisson de Chazournes, *International watercourses: enhancing cooperation and managing conflict*, World Bank, 1998, 103-125; Stephen Stec, 'Do Two Wrongs Make a Right? Adjudicating Sustainable Development in the Danube Dam Case', *Golden Gate University Law Review*, Vol. 29, Issue 3, 1999, pp. 317-397; John Fitzmaurice, 'The ruling of the International Court of Justice in the Gabčíkovo-Nagymaros Case: A Critical Analysis', *European Environmental Law Review*, Vol. 9, Issue 2, 2000, pp. 80-87; Cesare P. Romano, *The Peaceful Settlement of International Environmental Disputes A Pragmatic Approach*, Kluwer, 2000; Ellen Hey, 'International water law placed in a contemporary environmental context: the Gabčíkovo-Nagymaros case', *Physics and Chemistry of the Earth, Part B: Hydrology, Oceans and Atmosphere*, Volume 25, Issue 3, 2000, pp. 303-308; Marcel Szabó, 'The Legal Position of Hungary and Slovakia after the Judgment of the ICJ in the Gabčíkovo-Nagymaros Case', in Péter Kovács (ed.), *International Law at the Turn of the Millennium – the Hungarian Approach*, Szent István Társulat, Budapest, 2000, pp. 59-76; Steven M. Schwebel, 'The Judgment of the International Court of Justice in the case concerning the Gabčíkovo-Nagymaros project (Hungary/Slovakia)', in Steven M. Schwebel, *Justice in International Law. Further selected writings*, Cambridge University Press, Cambridge, 2011, pp. 113-123; Stephen Deets, 'Constituting interests and identities in a two-level game: understanding the Gabčíkovo-Nagymaros Dam conflict', *Foreign Policy Analysis*, Vol. 5, Issue 1, 2009, pp. 37-56; Marcel Szabó, 'The Implementation of the Judgment of the ICJ in the Gabčíkovo-Nagymaros Dispute', *Iustum Aequum Salutare*, Vol. 5, Issue 1, 2009, pp. 15-25; Marcel Szabó, 'Gabčíkovo-Nagymaros Dispute – Implementation of the ICJ Judgment', *Environmental Policy and Law*, Vol. 39, Issue 2, 2009, pp. 97-102; Marcel Szabó, 'Implementation of the 25th September, 1997 Judgement of the International Court of Justice – Comparing Theoretical Perspectives and Practice', in Péter Kovács (ed.), *International law: a Quiet Strength. Miscellanea in memoriam Géza Herczegh*, Pázmány Press, Budapest, 2011, pp. 271-283; Gábor Baranyai & Gábor Bartus, 'Anatomy of a deadlock: a systemic analysis of why the Gabčíkovo-Nagymaros dam dispute is still unresolved', *Water Policy*, Vol. 18, 2016, pp. 39-49; Serena Forlati et al. (eds.), *The Gabčíkovo-Nagymaros judgment and its contribution to the development of international law*, Brill, 2020, with 15 chapters taking up different aspects of the case. Marcel Szabó, 'A bős-nagymarosi vízlépcsőper és utóélete – két évtized távlatából', in Gábor Kajtár & Pál Sonnevend (eds.), *A nemzetközi jog, az uniós jog és a nemzetközi kapcsolatok szerepe a XXI. században*, ELTE Eötvös, Budapest, 2021, pp. 483-498.
- 5 This author has published several pieces on the dispute, of which Boldizsár Nagy, 'The Danube Dispute: Conflicting Paradigms', *The New Hungarian Quarterly*, 1992/128, pp. 56-65; Boldizsár Nagy, 'The ICJ Judgment in the Gabčíkovo-Nagymaros Project case and its aftermath: success or failure?', in Marco Benatar & Tamar Meshel (eds.), *A Bridge over Troubled Waters: Dispute Resolution in the Law of International Watercourses and the Law of the Sea*, Brill/Nijhoff, 2021, pp. 21-60, are primarily relevant.

1.1. *The Aim*

The goal here is to show, how the duty to pursue EIA, the precautionary principle, and the care for the interests of future generations were inchoate in both the dispute and the judgment, without being able to play a decisive role. The proposal is that the judgment was an opportunity to transform their potential into actuality in the Aristotelian sense. These ideas could have had the power to deeply influence or right away determine the content of the judgment. They had the potential, but under the historic circumstances and the ICJ's disposition they could not exert it, the actuality did not come forward, the potential was not brought to fruition. It took time until later judgments led to the blossoming of flowers that earlier were only buds bursting the bark of the *Gabčíkovo-Nagyymaros Project Case*.

Before we delve into the details of the text and of subsequent developments, let us very briefly recall the salient elements of the case.

1.2. *The Barrage System*

After earlier tentative plans to utilize the hydropotential of the Danube and under pressure from CMEA⁶ and the Soviet Union in the sixties, Czechoslovakia and Hungary developed the 'Joint Investment Programme', that contained all the important elements of the later system by 1964.⁷ A two element barrage system was to be built where the lower hydropower unit would enable the upper hydropower unit to operate in a 'peak mode', holding back the waterflow of the Danube for 10-18 hours. After the elaboration of the detailed plans, the intergovernmental treaty setting forth the main elements and the mutual obligations of the parties was adopted on 16 September 1977 (1977 Treaty).⁸ This stipulated the location of the upper barrage at Gabčíkovo, then in Czechoslovakia, and the lower barrage about 120 kilometers downstream at Nagyymaros. The planned system entailed a 60 km² reservoir between Bratislava and Dunakiliti, wherefrom a 17 km long artificial headrace canal was to deliver the waterflow to the combined 720 MW capacity turbines of the hydropower station built at the end of the headrace canal at Gabčíkovo, roughly 3 km from the Danube river border on the Czechoslovak side.⁹ Another artificial canal, the tailrace canal, also dug into fertile land far away from the riverbed, was to bring back the waterflow to the main riverbed, leaving a 41 rkm stretch of the main riverbed to be fed with a meagre average of 2-3% of the waterflow.

The continuous (run-of-the-river) hydropower station at the Nagyymaros barrage would have had 158 MW built-in capacity, so its main aim was not electricity generation but keeping the Danube navigable when the Gabčíkovo

6 Council of Mutual Economic Assistance, the intergovernmental organization tasked with the management of the economic co-operation of the Socialist states.

7 Hungarian Memorial, para. 2.34.

8 Treaty concerning the Construction and Operation of the Gabčíkovo-Nagyymaros System of Locks (Hungary and Czechoslovakia), 16 September 1977, 1109 UNTS 236; also published in *International Legal Materials*, Vol. 32, Issue 5, 1992, pp. 1247-1290. (1977 Treaty).

9 See the detailed description relying on the 1977 Treaty at paras. 28-29 of the judgment and the sketch-maps in para. 18.

weirs were closed and no water was to be discharged from the reservoir in order to collect the water for peak (hour) operation.¹⁰ In terms of costs, control and reaping the benefits, the 1977 treaty envisaged a “single and indivisible operational system”¹¹ in which both parties would have equal share.

In bilateral relations Hungary raised environmental concerns first in 1981 and then again, in a more resolute way in 1989. It first suspended and after fruitless negotiations with Czechoslovakia abandoned the construction of the second barrage at Nagymaros and did not complete the weir at Dunakiliti that was to divert the Danube into the artificial headrace canal. In response and during further similarly unsuccessful negotiations in 1989-1991, Czechoslovakia proceeded to the construction of installations at Čunovo 10 kilometers upstream from Dunakiliti where it controlled both embankments with a view to unilateral diversion of the Danube.¹²

The presently operating set of installations is called Variant ‘C’ (as it was one of the several options considered by Czechoslovakia)¹³ and it entails full control by Slovakia over water management and navigation in the bypass canal (headrace + tailrace canal) since the diversion of the Danube on 24-27 October 1992. Hungary’s significant investments into the Gabčíkovo power plant and the right bank dyke of the reservoir, as well as its investment in digging the tailrace canal appear as sunken costs. Its hydropotential used at Gabčíkovo for electric energy production is not compensated in any manner, nor does Hungary have access to its equitable and reasonable share of the Danube waterflow between rkms 1851 (the Čunovo diversion) and rkm 1810 (the confluence of the bypass canal and the old riverbed at Szap.)

1.3. *The Environmental and Ecological Concerns that Justify the Paramount Role of the Three Principles*

The essence of the dispute has been identified in many ways,¹⁴ some stressing the treaty law elements,¹⁵ others the law of responsibility, and still others the international water-law components or the environmental aspects.¹⁶ Obviously, from a broader perspective, the case was a political dispute and a competition

10 For a comparison: it is roughly equal to one photovoltaic power plant planned in Serbia near Zaječar (CWP to install 150 MW Solarina solar power plant near Zaječar, at <https://bbj.hu/economy/energy/green-energy/cwp-europe-unit-to-build-150-mw-pv%C2%A0plant-in-zajecar-serbia>); or roughly 75 wind turbines (The Anholt Offshore Wind Farm in Denmark has 400 MW capacity, at <https://ramboll.com/projects/re/anholt-offshore-wind-farm>).

11 Article 1 of the 1977 Treaty.

12 See paras. 23, and 66 of the judgment.

13 Slovak Memorial, paras. 5.15-5.23

14 See e.g. the thematic issue of the *Leiden Journal of International Law*, or the *Yearbook of International Environmental Law*, cited above. The publication commemorating the 20th anniversary of the ICJ judgment, Forlati *et al.* (eds.) 2020 discusses the case under three main headings, that of Treaties, international responsibility and sustainable development.

15 “I think we were right in considering that it was first of all a treaty law case.” Alain Pellet, ‘The Gabčíkovo-Nagymaros Case: A Personal Recollection’, in Forlati *et al.* (eds.) 2020, p. 7

16 “[...] environmental issues [...] could in fact be described as the very essence of the case.” Okawa 1998, p. 694.

between an industrial, modern approach and a post-industrial, ecological approach.¹⁷

Here it is appropriate to concentrate on the environmental and in a narrower sense the ecological concerns that invite the three notions/principles at the center of this article.

The Hungarian Memorial and all later submissions, including the oral pleadings devoted considerable space to these concerns and the damages and risks associated with the Original Project,¹⁸ as well as with Variant 'C'.¹⁹ The surface and subsurface waters were of prime concern. The decreased water flow in the main riverbed, reduced to a fragment of the actual discharge (that was to be diverted to the bypass channel) threatened with the drying up of the last inland delta in Europe, comprising several hundred square kilometers in the form of two large islands (Szigetköz and Zitny Ostrov) with an unusually dense branch system in the flood plain area supporting unique wetlands. Substantive deterioration of water quality including the danger of eutrophication also belonged to expected surface water changes.

The aquifer below these two large islands was (and still is) threatened. The aquifer under the Hungarian side has the sustainable capacity to yield 750 million liters of potable water per day. Similar resources on the Slovak side resources are even larger. The fear was that the deteriorating quality of the infiltrating water containing heavy metals and other pollutants would in an irreversible manner pollute this aquifer rendering the water not potable or necessitate complicated and financially prohibitively expensive treatment.

At the lower section, upstream and downstream of the Nagymaros Barrage, the expected river morphological changes would have significantly reduced the quantity and impaired the quality of the water produced by the bank filtered wells operating in the affected area. These wells supply the drinking water of the 1.9 million inhabitants living in the Hungarian capital. The water gained from the wells in the area that would have been affected by the Nagymaros Barrage is of such quality that it needs no treatment at all, thanks to the natural process of bank filtering.

The two islands below Bratislava, Zitny Ostrov and Szigetköz and the branches criss-crossing them form the last inland delta in Europe. They contain unique flora and fauna and are vital sites of aquatic life. The loss of connection

17 Nagy 1992; John Fitzmaurice, *Damming the Danube: Gabčíkovo and post-communist politics in Europe*, Routledge, 1998; János Vargha, 'Vízterő és politika', in János Vargha (ed.), *A hágai döntés*, Enciklopédia, Budapest, 1997, pp. 221-287.

18 "Original Project" refers to the set of installations and mode of operation in the original plans supporting the 1977 Treaty, including the "Joint Contractual Plan" containing all the details, adopted in 1976.

19 Hungarian Memorial, pp. 147-179, paras. 5.30-5.140; Hungarian Counter-Memorial, pp. 34-81, paras. 1.50-1.177, and pp. 153-171, paras. 3.15-3.81. Two tomes were devoted to these issues as Vol. 5, Part I and II to the Hungarian Memorial, one as Volume 2 of the Annexes to the Hungarian Counter-Memorial. The Hungarian Reply summarized the concerns and addressed the Slovak arguments proposed in the Slovak Counter-Memorial in response to the Hungarian position in the Hungarian Memorial at pp. 48-65, paras. 1.100-1.144, accompanied by one more volume containing the "scientific rebuttal" of the Slovak position (Vol. 2 of the Annexes).

between the side arms and the main riverbed of the Danube, the decreased water discharge and ground water levels and the lack of floods would have had devastating impact on the flood plain ecosystems of the affected area, including disappearance of species and reduced biodiversity. Disappearance of certain aquatic habitats and a significant impairment of fisheries was also expected.

Other risks related to navigation (which is totally blocked for ships larger than small boats in the main riverbed between Čunovo and Sap), landscape and recreational values, 45 archaeological sites including remnants of Roman watch-towers and geological and geophysical risks were also associated with the Original Project.²⁰

The unilateral diversion of the Danube in 1992 and the continuous operation ever since of Variant 'C' has re-arranged the set of risks and damages: most of those related to the Nagymaros barrage (that had not been built) and the 123 km long reservoir between it and the upstream confluence of the bypass canal and the main riverbed did not materialize. As Gabčíkovo is more-or-less continuously operating, the sedimentation pattern in the Čunovo reservoir is very different from the original plan to which one may add that the water quality of the river has dramatically improved due to the collapse of Socialist heavy industry and owing to EU requirements, so the threat of the pollution of the aquifer has decreased. On the other hand, the length of the river without normally fluctuating discharge was extended by 10 kilometers, the abrupt diversion wreaked havoc in the ecosystems, and the present artificial water supply system cannot maintain the conditions that prevailed in the area before construction had started.²¹

2. The Three Buds: Environmental Impact Assessment, Precaution and Intergenerational Equity

Let us not start with trying to determine whether these were or now are rules, principles, concepts or approaches. Here, in the introduction to their detailed discussion the aim is to clarify why other similarly relevant concepts, like the idea of sustainable development, principles of the use of international watercourses, the duty to prevent transboundary harm and many more are excluded from this study. The reasons for that omission are threefold: either these other concepts do not belong to the dense normative space the three suggested topics create (like the principle of reasonable and equitable use of shared resources) or they have been extensively discussed in academia and had a fairly fixed meaning by the time

20 For a concise listing of these and further risks see the Hungarian Reply, para. 1.102.

21 "We can conclude that construction of the Gabčíkovo Waterworks, similar to other river regulations [references to studies], leads to the slow degradation of rare and endangered habitats of the softwood floodplain forests in the Danube inland delta. Analysis of changes in the species composition and ecological factors revealed that all three studied sites have undergone negative changes over the last 23 years." Mária Petrášová-Šibíková *et al.*, 'Effect of the Gabčíkovo Waterworks (Slovakia) on riparian floodplain forest ecosystems in the Danube inland delta: vegetation dynamics and trends', *Biologia*, Vol. 72, Issue 7, 2017, p. 732.

the judgment was rendered (principle of prevention) or, lastly, they are so complex and elusive that their discussion would deserve and require disproportional space and effort within the frame of this paper (sustainable development).

Consequently, I chose environmental impact assessment, precaution and the interests (or rights?) of future generations as the central themes of this paper. I did so because of their inherent linkages and the dense normative space they create.²² Precaution is applied in order to save present and future generations from irreversible and/or devastating harm under circumstances of uncertainty, when no full scientific evidence can be produced.²³ Environmental impact assessment is the measure to be applied to assess the risk of that harm together with identifying the concrete, clearly foreseeable consequences of the planned activity.

The essence of the Gabčíkovo-Nagymaros Project dispute was located in the center of this normative space. Hungary believed that the project's possible impacts have not been assessed in a holistic way, which could only be done in the form of a methodically flawless, comprehensive environmental impact assessment that would investigate not only the planned barrage system but also its alternatives, be it energy production or solution to the navigational problems or flood protection. The country suspended the construction at Nagymaros, and a few months later at the upper section in 1989, precisely to accomplish this. Why? Because there were good reasons to believe that the operation of the Original Project would lead to serious and irreversible damage in many ways, among others threatening the drinking water supply of several millions of people. Harm would not necessarily immediately manifest itself. The yet untapped resources under Szigetköz and Zitny Ostrov served as reservoirs to supply the drinking water needs of future generations not only in the two affected countries, but more widely, the future generations who may live in areas with water pressure and scarcity. The degradation of the habitats and ecologically valuable areas may in fact take decades, depriving future generations from biodiversity, agricultural, aquacultural and forestry resources and recreational values on the long run.

That was the core of the dispute: could it be established with scientific certainty that no such harm was threatening, that the interests and choices of future generations to come were not jeopardized? In order to answer that question the parties ought to have engaged in an environmental impact assessment that could have dispelled any reasonable doubt as to the viability of the project. Hungary was of the view that the risk was real and present, its nature and probability ought to be specified in a comprehensive environmental impact assessment in order to protect the interests of present and future generations even against threats that may not be proven with full scientific certainty.

22 For the link between precaution and environmental impact assessment, see Antônio Augusto Cançado Trindade, 'Principle 15 Precaution', in Jorge E. Vinuales (ed.), *The Rio Declaration on Environment and Development: A Commentary*, Oxford University Press, Oxford, 2015.

23 A more precise definition will be offered later.

Czechoslovakia and – after 31 December 1992 – the successor state to the project, Slovakia did not share this approach. It believed that appropriate investigations had been completed to exclude serious and or irreversible damage and so one could assume that intergenerational equity was not jeopardized. Slovakia was of the view that negative impacts on the environment or the malfunctioning of the system can be rectified by engineering and similar measures and denied that precaution was a justiciable rule/principle of international law. One may say the first was a postmodern, sustainability-oriented approach, the second an industrial, modern, growth-oriented approach.

It all depended on the Court: was it ready to adopt an environmentally progressive, activist approach, reinforcing nascent norms or did it want to play safe by applying norms that it could have applied fifty years earlier as well. For the sake of this study the research question to be answered is: what was the substance and the international law status of the three concepts at the time of the procedure (1993-1997); how did the Court relate to them then; and has its approach – and the overall international legal perception – changed in the subsequent quarter of a century?

3. Environmental Impact Assessment

This, and the following section and will be divided into three subsections: (i) the first will briefly review the status of the legal concept up to the adoption of the judgment on 25 September 1997, that is their history before and during the ICJ procedure. (ii) The second subsection in each section will review how the parties and the ICJ dealt with the concept in the case. (iii) Finally, a third subsection will explore their ‘life’ after the judgment.

3.1. *The Status of EIA before the Judgment*

It was not until 2010 that the full Court admitted that undertaking an environmental impact assessment (EIA) was “a requirement under general international law”.²⁴ In 1995 *ad hoc* judge Palmer nominated by New Zealand in the second *New Zealand versus France* case²⁵ ventured into saying that “customary international law *may* have developed a norm of requiring environmental impact assessment where activities may have a significant effect on the environment”²⁶ (emphasis added).

Clearly, the duty to conduct an EIA (when certain risks were entailed) was not a rule that the ICJ would apply as part of the foundation of its judgment in

24 ICJ, *Pulp Mills on the River Uruguay (Argentina v Uruguay)*, judgment, ICJ Reports 2010, p. 14, para. 204.

25 ICJ, *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests (New Zealand v France) Case*, ICJ Reports 1995, p. 288.

26 *Id.* Dissenting Opinion of Judge Geoffrey Palmer, para. 91.

the 1990s, no matter how strongly some parties were pushing for it.²⁷ But what was its status at the time?

The history of EIA is well rehearsed.²⁸ At national level the starting point was the US National Environmental Policy Act of 1969.²⁹ It early on combined the EIA with the goal to “fulfil the responsibilities of each generation as trustee of the environment for succeeding generations”.³⁰ By 1992 both Hungary and Czechoslovakia had dedicated rules on environmental impact assessment.³¹

Globally, the adoption of Principle 17 of the 1992 Rio Declaration³² prescribing it as a duty of states was the most important step. In Europe the turning point was the 1991 (Espoo) Convention on Environmental Impact Assessment in a Transboundary Context³³ concluded under the aegis of the UN Economic Committee for Europe, whereas the EU (then: European Economic Community) adopted its first directive on EIA in 1985.³⁴

One can assume that the core ideas of the EIA had crystallized by the early nineties. In a more recent publication, Neil Craik summarizes them as follows:

- “1 An EIA shall be required prior to the commencement of a planned activity that is likely to have a significance environmental impact on the territory of another state or in areas beyond national jurisdictions.
- 2 EIA primarily applies to physical undertakings and much less to policies, plans, and programs.
- 3 The contents of an EIA shall be determined by domestic law, but ought to be sufficient to allow states to evaluate the environmental impacts, both direct and indirect, of the activity, as well as potential mitigation measures, in accordance with due diligence.
- 4 In case significant environment impact is likely, the obligation to notify the potentially affected states, inform them about the results of the EIA, and to consult with a view to resolving any outstanding concerns emerges.

27 See the next subsection.

28 Neil Craik, ‘Environmental Impact Assessment’, in Vinuales (ed.) 2015, p. 451; Philippe Sands *et al.*, *Principles of international environmental law, 4th edition*, Cambridge University Press, Cambridge, 2018, pp. 657-681.

29 Pub. L. 91-190 as amended USC 42§ 4321-47. In force since 1 January 1970.

30 Id. Section 101.

31 Czechoslovakia: Czech National Council Act on Environmental Impact Assessment (No. 244/1992); Hungary: Governmental Decree No. 86/1993. (VI. 4.) on the temporary regulations of EIA of certain activities.

32 UN Conference on Environment and Development, *Rio Declaration on Environment and Development*, 14 June 1992, UN Doc. A/Conf.151/5/Rev.1, Principle 17. Two important predecessors were the UNEP Goals and Principles of Environmental Impact Assessment UNEP Res. GC14/25, 14th Sess. (1987), endorsed by GA Res. 42/184, UN GAOR, 42nd Session, UN Doc. A/Res/42/184 (1987) (‘UNEP EIA Goals and Principles’), and the World Bank’s Operational Policy on environmental Assessment OP 4.01 first introduced in 1989.

33 Convention on Environmental Impact Assessment in a Transboundary Context, 25 February 1991.

34 Council Directive 85/337/EEC on the Assessment of the Effects of Certain Public and Private Projects on the Environment.

- 5 EIA processes shall provide opportunities for public participation.
- 6 States who undertake activities are under a continuous obligation to monitor environment impacts, where monitoring is found to be reasonably necessary.”³⁵

3.2. *Environmental Impact Assessment in the Gabčíkovo-Nagymaros Project Case – Position of the Parties and the ICJ*

The Slovak Memorial only mentions the term ‘environmental impact assessment’ once, when referring to a professional group, that conducted a large study commissioned by Hungary.³⁶ It writes extensively about all the disparate scientific studies conducted in the past and dealing with the expected impact of the Original Project, but nowhere does it make an effort to place them into the legal and epistemological frame of the EIA. None of the documents referred to in the previous subsection, not even the Rio Declaration appears in the text. Remarkably, when arguing for the legality of Variant ‘C’, the point dealing with the (alleged) conformity of the unilateral diversion of the Danube and the operation of the Gabčíkovo power plant with “rules and principles of international law that regulate shared watercourses”,³⁷ Slovakia limits itself to the principle of reasonable and equitable share and ignores duties related to EIA as providing information, notification and negotiation, not to mention the involvement of the affected public.

The Slovak perception was that the Hungarian environmental arguments throughout the different phases of the dispute were merely pretexts camouflaging first economic, and later political purposes. It claimed that the motivation of the social movements attacking the project was political as was that of the government which after 1990 identified with the goals of the environmental movements, but at no time was opposition to the completion of the project supported by solid scientific evidence.³⁸

The mentality of Slovakia is best reflected by the bold statement ending the description of the Original Project:

“It had been found that the environment would benefit to a high degree from the Project and that any negative impacts could be mitigated at the same time as the parties’ development goals were realized.”

35 Neil Craik, ‘Environmental Impact Assessment’ in Yann Aguila & Jorge E. Vinuales (eds.), *A Global Pact for the Environment: Legal Foundations*, C-EENRG, Cambridge, 2019, pp. 69-70.

36 Slovak Memorial, para. 2.27.

37 Id. Chapter VII, Section 3 E, paras. 7.772-7.86.

38 Id. para. 3.56. To taste the unique style of the Slovak Memorial, read this concluding sentence of para. 3.56, summarizing why the first democratically elected government of Hungary opposed the project: “After the political changes in Hungary, opposition to the G/N Project became an *idée fixe* in the political program of the party that assumed power, because such opposition had played an important role in the struggle for power in 1989 and 1990 and in its outcome.”

This is the quintessentially modern, industrial approach: everything is fine, the goal is “development”, *i.e.* growth, there are no risks to consider and if nevertheless something goes wrong, we will fix it.

The Hungarian Memorial dealt more extensively with the duty to conduct an EIA. It noted the domestic criticism (coming, among others, from the Hungarian Academy of Sciences) against the studies conducted in the mid-eighties, according to which the studies were not complex, failed a rigorous methodology and did not adequately investigate alternatives to the project.³⁹ The more extensive treatment of EIA appears in the context of Variant ‘C’ in which both the Espoo Convention and the Rio Declaration are invoked, primarily as sources of an obligation to inform and consult.⁴⁰ The Hungarian Memorial also mentions EIA as an obligation that has developed after the conclusion of the 1977 Treaty and therefore can be an element contributing to the evidence supporting the claim that a fundamental change of circumstances has occurred since the conclusion of the Treaty.⁴¹

The counter-memorials predictably brought a more intensive engagement with EIA. *Slovakia* essentially continued to ignore EIA as a legal norm, and opted for a bifurcated strategy: on the one hand it challenged the evidence about the future threats presented by the Hungarian side by purporting to refute certain details.⁴² On the other hand, it continuously moved the dispute to the field of water management, equitable and reasonable share and economic benefits,⁴³ not refraining from occasionally simply distorting the Hungarian evidence.⁴⁴ The general tenor of the Counter-Memorial is reflected by the following quote:

“The general principles of contemporary international environmental law do not operate in isolation from other norms of international law including the principle of *pacta sunt servanda*, or from other values of the international community. In particular, those principles, properly understood, inform but do not thwart the efforts of countries to develop for the benefit of present and future generations. Yet if Hungary’s view of the general international law of the environment were followed to its logical conclusion it would mean that no dams or other development projects could be constructed on international watercourses because they would alter the natural environment.”

39 Hungarian Memorial, paras. 3.52-3.

40 *Id.* Chapter 7, Section C 2.

41 *Id.* para. 10.76.

42 Slovak Counter-Memorial, para. 8.16 “Unfortunately, the WWF publications in relation to the GNBS Project are characterized by a lack of in depth in scientific study and a prejudice against the Project.”

43 Chapter IX, Section 3, paras. 9.45-9.79.

44 Para. 4.29 claims that the quotes taken from the Hungarian Academy of Sciences study presented in that paragraph showed they were a clear “statement by the Hungarian Academy of Sciences (HAS) of the priority of economic interests over environmental concerns.” In reality, the HAS study called for further research into the expected impacts and suggested to temporarily or definitely avoid the construction of the second barrage in order to eliminate the “adverse side effects” of the project. *Cf.* Hungarian Memorial Annexes, Vol. 5, Part I, p. 11.

Hopefully there is no need to stress that Hungary never objected to the utilization of the international watercourse, it simply aspired to what the ICJ was to declare later: that the Project may only operate if it is environmentally sound.⁴⁵

The *Hungarian Counter-Memorial* devoted considerable space to EIA. The Counter-Memorial's main text addressed it in two sections⁴⁶ and a whole annexed volume was devoted to the scientific evaluation of the GNBS and Variant 'C', chapter 7 of which dealt exclusively with the EIA.⁴⁷ The essence of the Hungarian position may be summarized in the following way. (i) Environmental impact assessment is a project evaluation technique that includes a process which aims at the complex and interrelated ascertainment of the expected environmental, social, and economic impacts of the planned intervention and its alternatives, including no action at all and consists of the procedural steps and of an environmental impact statement, the criteria of which have changed since the 1970s and are still not fixed. The process also includes subsequent monitoring and evaluation.⁴⁸ (ii) Isolated studies related to a project do not add up to an EIA, no matter how many of these are available. What is critical is

“the scope of the issues addressed, the quality of each study, and the extent to which the different studies have been integrated so as to provide a coherent overview of the environmental problems posed.”⁴⁹

In the context of the failure to carry out an environmental impact assessment of Variant 'C' the Hungarian Counter-Memorial notes that the items named, but not reproduced in an Annex of the Slovak Memorial⁵⁰ constitute a “motley collection of studies” that neither individually, nor collectively constitute an EIA. It further stresses that not “one of these studies purports to address the overall environmental impacts of Variant 'C', or its effects on such matters as biodiversity or water quality on the Hungarian side.”

By the Reply phase, EIA became an important issue for both parties. The Slovak Reply engages the Hungarian argument early on, according to which no proper EIA was ever executed. It once again proposes that the much criticized studies (on both sides) in effect provided appropriate information, making mitigation of the harmful impact possible. What the Slovak Republic does not do is to reflect on what an EIA should look like, what the criteria ought to be, and

45 According to the ICJ, the 1977 Treaty requires “the Parties, in carrying out their obligations to ensure that the quality of the water in the Danube is not impaired and that nature is protected, [and] to take new environmental norms into consideration when agreeing upon the means to be specified in the Joint Contractual Plan.” ICJ judgment, para. 112.

46 Hungarian Counter-Memorial, Chapter I, Section C, paras. 1.20-1.41. and Chapter 3, Section B, paras. 3.11-3.14.

47 Id. Annexes, Volume 2.

48 Id. para. 1.20, and Chapter 7 in Volume 2.

49 Id. para. 124.

50 Slovak Memorial, Annex 36.

how the set of studies available at different time periods correspond (or don't correspond) to these criteria.

Instead, it claims that general international law could only regulate matters that were not regulated by the 1977 Treaty and asserts that "nature protection" was in fact regulated by the Treaty. It further asserts that in any event, the 1977 Treaty was *lex specialis*, even in relation to later developed general principles of international environmental law.⁵¹

The Hungarian Reply devotes twenty paragraphs to showing that no proper EIA was made before or subsequent to the 1977 Treaty, and highlights how the "Bioproject" studies that were claimed to have assessed the impacts of the Original Project were never handed over to Hungary.⁵² It also stresses that Slovakia applied for EU funds (PHARE) to create a "proper impact assessment model" and pointed out that the Slovak experts had indicated that an adequate study was lacking.⁵³

The oral pleadings essentially repeated the parties' well-rehearsed positions. Professor Wordsworth on behalf of Slovakia stressed that

"there was no duty under international law in the pre-Treaty period to carry out a proper environmental impact assessment, whatever that may be, and Hungary's contention is anyway contradicted by the evidence annexed to its own Memorial."⁵⁴

There were three statements in this sentence: (i) first, that EIA was not compulsory before 1977 (true, but Hungary never claimed the opposite); (ii) second, that nobody knows what a proper EIA may be (in 1997 there were quite many, including the Hungarian delegation who knew what it ought to be); and (iii), finally that in fact there was an Environmental Impact Statement annexed to the Hungarian Memorial (that would be the 1985 statement by the Hungarian company involved in the construction of the barrage system, which was a far cry from a decent environmental impact statement as substantiated by Hungary in the oral phase.)⁵⁵

Hungary yet again stressed the lack of a comprehensive EIA that would identify the impact of changing one environmental factor (e.g. water level) on others (e.g. flora, fauna, land use, etc.)⁵⁶ It also showed, that major items such as seismological threats had not been addressed adequately and reassuringly.⁵⁷

The words of Professor McCaffrey speaking on behalf of Slovakia lead to the question the ICJ had to answer concerning EIA:

51 Slovak Reply, para. 3.56.

52 Hungarian Reply, para. 1.68.

53 Id. para. 1.83.

54 Slovak Oral Pleadings, CR 97/7, 24 March 1997, p. 42.

55 Hungarian Oral Pleadings, CR 97/12, 10 April 1997, pp 34-36.

56 Id. p. 53, CR 97/7, 7 March 1997.

57 Id. pp. 56-57.

“Hungary is thus saying that the Parties’ assessment of the Project’s environmental impact was not “adequate” – in the sense that it did not measure up to today’s standards. But surely this can have no legal relevance.”⁵⁸

Therefore, the ICJ had to decide if EIA was indeed legally irrelevant, and also, what adequacy would mean if it actually was relevant. The ICJ did not say that conducting an EIA in the above-described meaning was obligatory in 1997 or earlier. In other words, it did not acknowledge its customary law character as of September 1997. It should have done so, at least according to Hungary and Judge Weeramantry, who in his much-quoted separate opinion noted that

“Environmental Impact Assessment (EIA) has assumed an important role in this case. In a previous opinion [*New Zealand v France*, 1995 – BN] I have had occasion to observe that this principle was gathering strength and international acceptance, and had reached the level of general recognition at which this Court should take notice of it [Footnotes omitted].”⁵⁹

In 1997 the judge went further and stated that in his view environmental law would “read into treaties which may reasonably be considered to have a significant impact upon the environment, a duty of environmental impact assessment” and a duty of monitoring during the operation of the scheme.⁶⁰

If the ICJ’s treatment of sustainable development was “cryptic”,⁶¹ its approach to the EIA was no less obscure. It invented its own language to circumscribe what ought to be done, without subjecting the states to well-established and more-or-less well defined international environmental law. It established that “the concerns expressed by Hungary for its natural environment in the region affected by the Gabčíkovo-Nagymaros Project related to an ‘essential interest’ of that State.”⁶² The ICJ noted that

“the Project’s impact upon, and its implications for, the environment are of necessity a key issue. The numerous scientific reports which have been presented to the Court by the Parties – even if their conclusions are often contradictory – provide abundant evidence that this impact and these implications are considerable.”⁶³

Further, it stressed that

58 Slovak Oral Pleadings, CR 97/9, 25 March 1997, p. 40.

59 ICJ, *Gabčíkovo-Nagymaros*, Separate Opinion of Judge Weeramantry, p. 111.

60 Id. p. 112.

61 Boyle 1997, p. 18.

62 ICJ, *Gabčíkovo-Nagymaros*, judgment, para. 53.

63 Id. para. 140.

“awareness of the vulnerability of the environment and the recognition that environmental risks have to be assessed on a continuous basis have become much stronger in the years since the Treaty’s conclusion.”⁶⁴

Did this “stronger recognition” of the fact that “environmental risks have to be assessed on a continuous basis” lead to the conclusion that EIA is mandatory, as it includes the preliminary assessment of future risks and the continuous lookout for later possible risks? No. Neither did the Court acknowledge retroactively that in 1989 the construction should have been submitted to an EIA (if that was not yet a legal requirement in 1977). Nor did it believe that in 1997 the duty to complete an EIA when determining the future form of the project was compulsory and part of “rules of general international law” that determine the relationship between the Parties next to the 1977 Treaty, which is *lex specialis*, but “open to adapt to emerging norms of international law”.⁶⁵

The language the ICJ used in the much-quoted para. 140 to determine the course of environmental action is this:

“In order to evaluate the environmental risks, current standards must be taken into consideration. This is not only allowed by the wording of Articles 15 and 19, but even prescribed, to the extent that these articles impose a continuing – and thus necessarily evolving – obligation on the parties to maintain the quality of the water of the Danube and to protect nature.

The Court is mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this type of damage. [...]

[...] the Parties together should look afresh at the effects on the environment of the operation of the Gabčíkovo power plant. In particular they must find a satisfactory solution for the volume of water to be released into the old bed of the Danube and into the side-arms on both sides of the river.”

Vigilance, prevention, fresh look.⁶⁶ We are almost there, even if “vigilance” is not an international environmental law term,⁶⁷ and much less is fresh look. The international community was to wait another 13 years until the pieces of the puzzle fell together in *Pulp Mills*,⁶⁸ and we learnt that due diligence is the mother of prevention, and vigilance and due diligence is only exercised if an EIA had been conducted. But that is a story for the next subchapter.

64 Id. para. 112.

65 Id. paras. 132, and 112.

66 For a careful analysis, see Makane Moïse Mbengue, ‘On Sustainable Development: a Conversation with Judge Weeramantry’ and Leslie-Anne Duvic-Paoli, ‘Vigilance and Prevention. The Contribution of the Gabčíkovo-Nagyymaros Judgment’, both in Forlati *et al.* (eds.) 2020.

67 Duvic-Paoli 2020, p. 202.

68 ICJ, *Pulp Mills on the River Uruguay (Argentina v Uruguay)*, judgment, ICJ Reports 2010, p. 14.

3.3. EIA after the 1997 Judgment

This section cannot give a comprehensive overview of the development of the concept/principle over the last 25 years.⁶⁹ Instead, it is limited to presenting a few milestones to show how the bud broke to become a flower. The Draft Articles on Prevention of Transboundary Harm from Hazardous Activities adopted by the International Law Commission in 2001⁷⁰ deals “with activities [...] which involve a risk of causing significant transboundary harm through their physical consequences”,⁷¹ and prescribes that the authorization of such an activity “shall, in particular, be based on an assessment of the possible transboundary harm caused by that activity, including any environmental impact assessment.”⁷²

The ILC did not specify who should conduct the assessment, what the content of the risk assessment should be and which type of activities should be subjected to EIA, but in respect of the third question, it has always been clear that the probability, the magnitude and the irreversibility of the potential (transboundary) impact/harm is decisive.⁷³

The *Pulp Mills* case between Uruguay and Argentina related to the pulp mill (Orion, later Botnia) established on the bank of the Uruguay river. The river was the subject of a bilateral treaty (Statute) between Uruguay and Argentina which, among others, prescribed that the parties shall co-ordinate, to avoid any change in the ecological balance⁷⁴ and to protect and preserve the aquatic environment and, in particular, to prevent its pollution, by prescribing appropriate rules and adopting appropriate measures.⁷⁵

In paras. 185 and 194 the ICJ recalled its words from the *Gabčíkovo-Nagymaros* judgment about the need for prevention and vigilance and to look afresh at the environmental effects of the operation of the project. Then it uttered the words already expected in the *Gabčíkovo-Nagymaros Project Case*:

“[T]he obligation to protect and preserve, [...] has to be interpreted in accordance with a practice, which in recent years has gained so much acceptance among States that it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource. Moreover, due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the régime of the river or the quality

69 See e.g. Philippe Sands *et al.* 2018, pp. 657-681.

70 *Yearbook of the International Law Commission*, 2001, Vol. II, Part Two.

71 Article 1 of the Draft Articles.

72 Article 7 of the Draft Articles.

73 For the relation of the ILC Draft, the Espoo Convention and the *Pulp Mills* judgment see Alan Boyle, ‘Developments in the International Law of Environmental Impact Assessments and their Relation to the Espoo Convention’, *Review of European Community & International Environmental Law*, Vol. 20, Issue 3, 2011, p. 227.

74 Article 36 of the Statute.

75 Article 41 of the Statute.

of its waters did not undertake an environmental impact assessment on the potential effects of such works.”

So here is the new construct: the customary law requirement of due diligence (also confirmed by the ILC draft articles) incorporates two norms: (i) the duty to prevent significant transboundary harm, and (ii) the duty to be vigilant. These twin norms require (presume) the conduct of an EIA. Could the same reasoning have been presented in 1997? Yes, it could. But the Court shields itself from criticism by assuming that this was the result of the developments of “recent years.”

Two more recent cases of the ICJ involved EIA. (i) The first, itself a double (united) case⁷⁶ related to building a road next to the San Juan river on the side of Costa Rica in response to certain military activities carried out by Nicaragua on Costa Rican territory. Both parties accused each-other with failing to conduct an appropriate EIA and causing transboundary environmental harm. According to Costa Rica, Nicaragua breached the procedural obligations to carry out an appropriate transboundary environmental impact assessment of its dredging works, and to notify and consult with Costa Rica regarding those works. The situation resembled the *Gabčíkovo-Nagyymaros* dispute to the extent that there was an environmental impact study conducted by Nicaragua which, together with other studies, it considered as fulfilling the obligation of carrying out EIA. Costa Rica claimed that these indeed existed, but were not an adequate EIA. The ICJ repeated that EIA is obligatory if there is a risk of significant transboundary harm, but going beyond *Pulp Mills* it dropped the “industrial activity” condition and extended the obligation to any activity threatening with significant transboundary harm.⁷⁷ It again refrained from determining what an adequate EIA should contain.⁷⁸ This time the ICJ very clearly formulated the obligation to notify and consult.⁷⁹

In the twin case, in which Nicaragua was the applicant, it claimed that Costa Rica breached its obligation under general international law to assess the environmental impact of the construction of the road before commencing it, particularly in view of the road’s length and location. It also pointed out that the environmental impact studies produced by Costa Rica after the bulk of the construction work had been completed did not constitute an adequate environmental impact assessment.⁸⁰ Costa Rica’s defense was that no risk of

76 ICJ, *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica v Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v Costa Rica)*, judgment, ICJ Reports 2015, p. 665.

77 *Id.* para. 104.

78 *Id.* Critically on that fact, see Katalin Sulyok, *Science and judicial reasoning: The legitimacy of international environmental adjudication*, Cambridge University Press, Cambridge, 2021, p. 79.

79 “If the environmental impact assessment confirms that there is a risk of significant transboundary harm, the State planning to undertake the activity is required, in conformity with its due diligence obligation, to notify and consult in good faith with the potentially affected State, where that is necessary to determine the appropriate measures to prevent or mitigate that risk.” ICJ, *Certain Activities*, para. 104.

80 *Id.* para. 151.

transboundary harm emerged with the construction, and in any case, it was acting in an emergency situation due to Nicaragua's military activities.⁸¹ As a defense, it also referred to studies done during and after the construction.⁸²

The case could have developed the doctrine if the ICJ had decided whether a state of emergency exempts the state from the duty to conduct an EIA. However, the ICJ denied the fact that an emergency was at hand, therefore, it refrained from answering the hypothetical question. Nevertheless, it went as far as to state that even if the emergency was a good ground to waive the EIA obligation, that ought to be regulated by international law, not simply by domestic law provisions.⁸³

(ii) The second case is *Silala*,⁸⁴ in which the parties in the beginning invoked the duty to conduct an EIA. However, this was linked to Article 12 of the Convention on the Law of Non-Navigational Uses of International Watercourses⁸⁵ which requires that a notification on planned measures which may have a significant adverse effect upon other watercourse states be accompanied by available technical data and information, including the results of any environmental impact assessment.⁸⁶ Bolivia agreed with the idea that Article 12 of the Watercourses Convention reflects customary law.⁸⁷ By the time the dispute reached the hearings phase in 2022 the nature of the dispute had fundamentally changed, and it seems that EIA will not play a central role in the judgment.

To summarize this section: the record of the ICJ in the field of EIA is not a story of shining success. The ICJ, after long hesitation, arrived at the point of recognizing EIA as an international law obligation rooted in customary law if no concrete treaty obligation was at hand. However, it refrained from identifying customary rules on how the risk requiring an EIA should be established,⁸⁸ what the content of the EIA ought to be, especially whether alternatives, including inaction ought to be evaluated, what the role of public participation should be and how the adequacy or inadequacy of an environmental impact statement can be controlled by a tribunal. In essence, the question of how to merge scientific

81 Id. para. 146, and 148.

82 Id. para. 149.

83 Id. paras. 157-158.

84 ICJ, *Dispute over the Status and Use of the Waters of the Silala (Chile v Bolivia)*, filed with the Registry of the ICJ on 6 June 2016. Oral hearings between 1 and 14 April 2022, judgment pending at the time of submitting this manuscript.

85 Convention on the Law of Non-Navigational Uses of International Watercourses, signed at New York on 21 May 1997, UN Doc. A/RES/51/229 (1997). Memorial of the Republic of Chile, pp. 8-9, para. 1.17.

86 Id. p. 107, submission e).

87 Counter-Memorial of the Plurinational State of Bolivia, para. 156.

88 A pathetic illustration is the ICJ's handling of assessing whether there was a risk calling for an EIA in case of the Costa Rican road at the bank of San Juan. ICJ, *Certain Activities*, judgment, para. 155: "The possibility of natural disasters in the area caused by adverse events such as hurricanes, tropical storms and earthquakes, which would increase the risk of sediment erosion, must equally be taken into consideration." One could ask about the likelihood of other Acts of God and how they should be factored in when establishing the threshold level of risk calling for an EIA.

risk assessment with legal procedural rules remained unanswered, and the norms enabling a tribunal to choose between competing scientific and engineering claims were not clarified by the ICJ.⁸⁹

4. Precaution

Precaution is not prevention.⁹⁰ Prevention relates to an identified future impact/harm, that has to be prevented or at least mitigated if it reaches a certain threshold, such as being significant, serious or appreciable. The logical sequence starts with the age-old idea of responsibility/liability for harm/damage/injury being caused,⁹¹ *sic utere tuo*.⁹² The insight that compensation and restitution may be more difficult to achieve than avoiding the harm engendered the principle of prevention. This however, is not the subject of study here.

The focus of precaution is elsewhere than that of *sic utere tuo* and prevention: precaution is a method of dealing with (scientific) uncertainty.⁹³ The need for precaution does not stem from a future event that is certain. It is a technique of resource allocation, close to the logic of insurance. Invest now a modest resource or abstain from an action in order to be protected against an enormous and/or irreversible loss⁹⁴ that you may incur.

4.1. The Status of Precaution before the Judgment

The demand to act in a precautionary way is relatively new, it is linked to the late eighties-early nineties.⁹⁵ The 1987 Montreal Protocol on Substances that Deplete the Ozone Layer,⁹⁶ may have been the first multilateral treaty referring in its preamble to the “determination” of the parties to “take precautionary measures” to protect an environmental resource. The Declaration on Sustainable Development of the UNECE environment ministers in May 1990 may have been a further push in the right direction, for it declared that policies were to be based

89 Sulyok offers an incisive critique of the ICJ’s treatment of EIA. Sulyok 2021, pp. 80-81.

90 Meinhard Schröder, ‘Precautionary Approach/Principle’, *Max Planck Encyclopedia of Public International Law*, 2014, online version, para. 4; Caroline E. Foster, *Science and the precautionary principle in international courts and tribunals: Expert evidence, burden of proof and finality*, Cambridge University Press, New York, 2011, p. 18.

91 The sentence intentionally combines consequences of international wrongful acts (responsibility) and those which arise as a consequence of accidents, hazardous activities or simply normal operation, which the young ILC used to refer to as “injurious consequences arising out of acts not prohibited by international law” (liability). Let us not replay the dispute whether this differentiation makes sense.

92 The usual references (*Trail Smelter, Corfu Channel, Lac Lanoux, etc.*) are to be found in the Hungarian Memorial, paras. 7.45-7.56.

93 A very competent and recent exposition of the principle is to be found in Nicolas de Sadeleer, *Environmental law principles: From political slogans to legal rules, 2nd edition*, Oxford University Press, Oxford, 2020, pp. 135-364.

94 This is intentionally a loose use of terms.

95 Schröder 2014, paras. 6-7, and 14; Foster 2011, p. 18.

96 16 September 1987, *International Legal Materials*, Vol. 26, 1987, p. 1550, see the Preamble and Article 6(2).

on the precautionary principle. This meant that where “there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation”.⁹⁷ The global assent came in Rio, 1992: the Declaration,⁹⁸ the Biodiversity Convention⁹⁹ as well as the Climate Change Convention¹⁰⁰ adopted in New York in the same year incorporated what they call the “precautionary principle” even though the formulations slightly differ, as the Declaration and the Climate Convention speak of “cost-effective measures”, whereas the Biodiversity Convention does not incorporate that restriction (in its preamble). The formulation in the Rio Declaration, principle 15 reads:

“In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.”

The issue whether it is a principle, an approach or a set of measures had not been decided before the 1997 judgment, nor since.¹⁰¹ Since the Amsterdam treaty was signed in 1997 and came into force in 1999 the TFEU refers to it as a principle upon which the Union’s environmental policy must be based.¹⁰² However, in 2013 in the final award in the *Indus Waters Kishenganga* arbitration the arbitral tribunal spoke of the precautionary approach (which it did not apply).¹⁰³ De Sadeleer comments:

“US policy-makers prefer to use the term precautionary *approach* (PA) rather than precautionary *principle*; the latter term is preferred by the EU institutions. For our part, as we consider this an irrelevant debate, a semantic squabble between decision-makers, we will use the terms PP and PA interchangeably.”¹⁰⁴

Not only was its nature in question, but also its substance. Jonathan B. Wiener at the beginning of the millennium collected seven issue areas where uncertainty

97 Principle 7. See *Environmental Policy and Law*, Vol. 20, Issue 3, 1990, p. 100.

98 14 June 1992, UN Doc. A/CONF 151/26.

99 Convention on Biological Diversity, Rio de Janeiro, 5 June 1992, *International Legal Materials*, Vol. 31, Issue 4, 1992, p. 818.

100 Framework Convention on Climate Change, *International Legal Materials*, Vol. 31, Issue 4, 1992, pp. 849-873.

101 Makane Mbengue, ‘Precaution’, in Aguila & Vinuales (eds.) 2019, p. 77; Trindade 2015, “2.3.1. Principle or approach?”

102 Article 191(2) TFEU.

103 PCA, *Indus Waters Kishenganga Arbitration (Pakistan v India)*, Final Award, 20 December 2013, para. 112.

104 De Sadeleer 2020, p. 136.

prevailed.¹⁰⁵ It was unclear at that time whether the application of the precautionary principle was part of the risk assessment and risk management, or an alternative to it. Was it only applicable to the environment (as the Rio Declaration suggested) or more broadly to health, food and consumer safety? What degree of perceived risk triggered the principle/approach? What follows from precaution, a total stop of action or a need to reduce uncertainty related to the action? Should the cost of staying on the precautionary side matter (as the Rio Declaration suggests) or should they not (as in the case of introducing pharmaceuticals)? Does the principle require zero risk? Does it indeed lead to a shift of the burden of proof?

Interestingly many of these questions would not have played a significant role in applying the principle in the *Gabčíkovo-Nagymaros Project Case*. This is because the threat was clearly environmental, the risk enormous, the act suggested was not abandoning the project but reducing uncertainty, the costs were to be borne by both parties and would have been commensurate to the expected loss and the burden of proof was to be shared.

In order to understand what the task of the ICJ would have been, it is worth looking at the foundation of precaution. It entails a risk assessment phase and a risk management phase. The first is (largely) scientific, the second (largely) political.¹⁰⁶ The risk assessment can be divided into four segments: the identification of the hazard feared, its characterization, description of the expected exposure to the hazard and the characterization of the risk which is the hazard exerting its impact. Here is an example:¹⁰⁷ the Nagymaros dam may threaten the drinking water supply of Budapest – *identification of the hazard*. It may do so due to the changed morphological circumstances below the dam as the filtering function of the riverbed will deteriorate and infiltration conditions will change – *characterization of the hazard*. A large proportion of the population of Budapest, a city of 2 million would be exposed to drinking water shortages or a prohibitively expensive treatment of the bank-filtered water would be required – *exposure*. Quantifying this change in water yield and quality and the costs of remedial measures – *characterization of the risk*.

A lot of scientific uncertainties were entailed in the prognoses of the impact of the dam, since no mathematical model could precisely predict the behavior of the riverbed and its filtering capacity, yet there was enough certainty to fear large-scale negative impacts.

That is when the second phase starts: risk management. Faced with the risk that is established with inherent uncertainty, how to act? Take the risk hoping

105 Jonathan B. Wiener, 'Precaution', in Daniel Bodansky et al., *The Oxford Handbook of International Environmental Law*, Oxford University Press, Oxford, 2007, pp. 602-603. The list I give does not exactly coincide with his.

106 De Sadeleer 2020, p. 213; and European Commission, *Communication from the Commission on the precautionary principle*, COM (2000) 1, 2 February 2000, pp. 13-14; and Annex III.

107 Another example probably closer to any reader on this Globe could have been COVID-19 vaccines and their experienced side effects and feared, unidentified long-term effects. Governments differed greatly in restricting some of them to certain groups of the population or banning them altogether from the country.

that a technical fix will be invented if the hazard materializes or suspend action (construction) until the risk assessment leads to more detailed scientific and technical results that eliminate uncertainties to such a level, that either the unacceptable magnitude is revealed, or, on the contrary, the manageable size of the risk is established. The Commission's Communication highlights the political element in the risk management phase:

“Decision-makers need to be aware of the degree of uncertainty attached to the results of the evaluation of the available scientific information. Judging what is an ‘acceptable’ level of risk for society is an eminently *political* responsibility. Decision-makers faced with an unacceptable risk, scientific uncertainty and public concerns have a duty to find answers. Therefore, all these factors have to be taken into consideration. [Emphasis in the original]”¹⁰⁸

So what did representatives of decision-makers plead in the case?

4.2. *Precaution in the Gabčíkovo-Nagyymaros Project Case – Position of the Parties and the ICJ*

Hungary, less than two years after its incorporation into the Rio Declaration pleaded the precautionary principle,¹⁰⁹ noting that “[a]lmost no new international instrument, whether regional or universal, drafted since 1989, ignores the precautionary principle” and stressed the importance of its inclusion into Article 2 of the Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes of 17 March 1992, drafted in the framework of the UN Economic Commission for Europe.¹¹⁰ The argument openly appeared in the context of the claim that Czechoslovakia “failed to investigate the environmental problems caused by the implementation of the Barrage System”.¹¹¹ In the context of the suspension of works at Nagyymaros, the need to stop construction that threatens an essential interest with irreversible harm under circumstances of scientific uncertainty was extensively discussed, but the focus was kept on the legal foundation of necessity as a term of the law of responsibility.¹¹²

*Slovakia first addressed the principle in the Counter-Memorial.*¹¹³ It developed a host of statements against the application of the precautionary principle in the

108 European Commission, *Communication from the Commission on the precautionary principle*, COM (2000) 1, 2 February 2000, para. 5 at p. 3.

109 Hungarian Memorial, p. 6.68. “One of the implications of the precautionary principle is that the causal link may be assumed in certain situations even in the absence of scientific certainty. Combined with the general obligation not to cause damage to another country’s environment, this means that the State whose activities are likely to damage the environment of another State must show that the proposed action will not have such effects. If this cannot be done, the proposed activity must be modified or even abandoned.”

110 Id. para. 6.66.

111 Id. para. 6.69.

112 Id. paras. 9.15-7; 9.19; 9.21; 9.29; and 10.76.

113 Slovak Counter-Memorial, paras. 9.23.4; and 9.80-9.94.

case, submitting that according to leading academics it was not a rule of general international law, that it was not an “absolute” principle, that in essence, it was due diligence which Slovakia had performed and that no serious or irreversible threatening damage was shown. The treatment of the burden of proof gave an opportunity to show the stylistic extravaganza of the Counter-Memorial’s author(s):

“Hungary seems to believe that its mere incantation of a ‘likelihood of environmental harm’ will bring such a likelihood into being or will at least force Slovakia to show that such a likelihood does not exist. Such a doctrine not only makes a mockery of the precautionary principle; it would have the dangerous consequence of thwarting, on the basis of absolutely no evidence, the legitimate efforts of States to develop.”

One must wonder whether the incantation of “absolutely no evidence” can make the pile of evidence disappear, as if it had never existed. All in all, the apparent animosity towards the principle did not lead to the denial of its existence by Slovakia, just to the negation of its applicability to the case.

The *Hungarian Counter-Memorial* notes that the freshly concluded Sofia Convention on co-operation for the protection of the Danube river¹¹⁴ in its Article 2(4) “proclaims that the precautionary principle constitutes a basis for all measures aiming at the protection of the Danube river and of the waters within its catchment area.”¹¹⁵ The very last section of the Hungarian Counter-Memorial dealing with remedies made it strikingly clear what Hungary was seeking:

“The function of a court is to do justice between parties, not to require future generations to run unacceptable risks. [...] The primary Slovak contention in this case amounts to a request to the Court to return to this *ancien régime* in violation of the law, both as it was and as it has further evolved. Faced with such a demand, the Court, the principal judicial organ of the United Nations, is bound itself to apply a precautionary approach.”¹¹⁶

In the Reply Slovakia once again asserted that both the Original Project and Variant ‘C’ were “consistent with the precautionary approach.”¹¹⁷ Its overall attitude towards general principles of environmental law, including the precautionary principle was that they were not applicable at all, but even if they were, only for the interpretation of the 1977 Treaty, and in fact, Czechoslovakia and Slovakia had always acted in accordance with these principles.¹¹⁸

114 Hungarian Counter-Memorial, Annexes, Vol. 3, Annex 71. or at www.icpdr.org/main/icpdr/danube-river-protection-convention.

115 Id. para. 4.30.

116 Id. paras. 7.25, and 7.38.

117 Slovak Reply, para. 3.54.

118 All these ideas are compressed into the Slovak Reply, para. 3.56.

Hungary's Reply took a cautious stand on the legal status of the principle referring to the "strong evidence of [its] emerging acceptance".¹¹⁹ In connection with the Original Project it stressed that it had "invoked the precautionary principle to seek a scientific re-examination of the likely consequences of the Original Project."¹²⁰ It also identified the increasing evidence showing a real risk of significant irreversible harm as a factor leading to the invocation of necessity.¹²¹

At the oral hearings Professor McCaffrey finally engaged with the principle in a serious way.¹²² On the one hand, he repeated that facts – according to Slovakia – did not support the existence of the risk Hungary stated, on the other hand he claimed that "the conduct of the Parties in relation to the Project was fully compatible with the precautionary approach".¹²³ He denied that a genuine and substantial scientific debate existed, reaching the level of uncertainty that would have justified the application of the precautionary approach, but *in abstracto* conceded that

"if there is a credible threat that an activity will cause serious or irreversible damage to the environment, cost-effective measures should be taken to prevent such damage – even if there is not *full* scientific certainty that the damage will occur."¹²⁴

Hungary noted the agreement on the formulation in the Rio Declaration and stressed that in 1989 the

"most cost-effective measures to be taken were further studies on the impacts of the project, especially Nagymaros and peak-power and the avoidance of irreversible measures such as the damming at Dunakiliti. Build Now, Investigate Later was simply incompatible with the precautionary approach."¹²⁵

Thus, by the time the judgment was due, the parties converged around the core meaning of the principle, accepted that it should apply, but differed as to its relationship with the 1977 Treaty. Hungary was willing to give priority to it as a later norm of the same hierarchical standing (not as *jus cogens*), Slovakia insisting that it was just a tool of interpreting the Treaty, which in turn, was *lex specialis*.

But the essential debate related to the application of the principle. (i) The first question was whether a hazard had really been identified. (ii) The second, if that was indeed the case, did the evidence at hand show that the level of

119 Occasionally using the milder "approach" terminology.

120 Hungarian Reply, para. 1.58.

121 Id. para. 3.17.

122 Slovak Oral Pleadings, CR 9, at pp 33-37.

123 Id. p. 34.

124 Id. p. 35.

125 Hungarian Oral Pleadings, CR 12, at p. 61.

uncertainty concerning the future risk was so high as to justify pausing construction and pursuing a further assessment of that risk.

The answer would have required the ICJ to take a stance on the legal status of precaution and to weigh the scientific evidence in respect of the future risk and the level of uncertainty. The ICJ did none, it evaded the answers.¹²⁶ As James Crawford observed:

“Perhaps unusually, the Parties had been in agreement as to the content of the precautionary principle as a question of general international law. It is all the more surprising that the Court chose to sidestep the application of the principle.”¹²⁷

It is remarkable, how the ICJ avoided the principle in order to interpret the state of necessity conditions. In para. 54 of the judgment we read:

“The word ‘peril’ certainly evokes the idea of ‘risk’; that is precisely what distinguishes ‘peril’ from material damage. But a state of necessity could not exist without a ‘peril’ duly established at the relevant point in time; the mere apprehension of a possible ‘peril’ could not suffice in that respect. It could moreover hardly be otherwise, when the ‘peril’ constituting the state of necessity has at the same time to be “grave” and “imminent”. “Imminence” is synonymous with “immediacy” or “proximity” and goes far beyond the concept of “possibility” [...] That does not exclude, in the view of the Court, that a ‘peril’ appearing in the long term might be held to be “imminent” as soon as it is established, at the relevant point in time, that the realization of that peril, however far off it might be, is not thereby any less certain and inevitable.”¹²⁸

This long quote is crucial: material damage is not required – merely a peril. That peril may be far out in time and still be imminent. What is decisive is that this peril is certain and inevitable. But if what is certain in the future is not material damage, it can only be a risk of damage – subject to the principle of precaution.¹²⁹ The ICJ appears to limit itself to discussing certain future “peril” and ignores future peril that is uncertain, but possible. The ICJ ignores precaution when constructing necessity. We might read this as a recognition of the principle of prevention (foreseeable damage) serving to justify ecological necessity, but certainly not that of precaution. In James Crawford’s view, “Indeed the Court’s

126 De Sadeleer 2020, p. 465; Szabó 2021, p. 493.

127 James Crawford, ‘In dubio pro natura: The Dissent of Judge Herczegh’, in Kovács (ed.) 2011, p. 262.

128 ICJ, *Gabčíkovo-Nagymaros*, judgment, para. 54. For an excellent and much clearer explanation of the terms and the uncertainty/ignorance related to them, see de Sadeleer 2020, p. 272.

129 Leslie-Anne Duvic-Pavoli offers the same interpretation of paras. 55-56. See Duvic-Pavoli 2020, p. 196.

own formulation of the doctrine of necessity touches upon aspects of the precautionary principle without either approving or applying it.”¹³⁰

However, the Judgment takes interesting turns. The ICJ “notes” that the “dangers ascribed to the upstream reservoir” above Nagymaros were “mostly of a long term nature” and remained uncertain.¹³¹ But that uncertainty was caused by the indecision of whether Gabčíkovo would operate in a peak mode or not¹³² – meaning that if the Original Project operated in a peak mode, the danger would be certain.

“It follows that, even if it could have been established – which, in the Court’s appreciation of the evidence before it, was not the case – that the reservoir would ultimately have constituted a ‘grave peril’ for the environment in the area, one would be bound to conclude that the peril was not ‘imminent.’”¹³³

But if the long-term certain peril qualifies as imminent, then here the danger/peril was imminent. Except that the ICJ appreciated the evidence differently. How that appreciation was conducted by the bench remains a secret.¹³⁴ This is all the more intriguing, since the ICJ confesses in a much commented statement that:

“Both Parties have placed on record an impressive amount of scientific material aimed at reinforcing their respective arguments. The Court has given most careful attention to this material, in which the Parties have developed their opposing views as to the ecological consequences of the Project. It concludes, however, that, as will be shown below, it is not necessary in order to respond to the questions put to it in the Special Agreement for it to determine which of those points of view is scientifically better founded.”¹³⁵

One wonders, how the ICJ could declare – after careful appreciation of the evidence – that the reservoir above Nagymaros was not a grave peril, if according to the judges it was not necessary to determine which of the views concerning the dangers the reservoir would cause was better founded scientifically.

In the end the ICJ came close to recognizing the precautionary principle in the already quoted para. 140 in which it spoke of itself being “mindful that, in the field of environmental protection, vigilance and prevention are required on

130 Crawford 2011, p. 261.

131 ICJ, *Gabčíkovo-Nagymaros*, judgment, para. 55.

132 Id.

133 Id.

134 Id. para. 54. A scathing critique of the ICJ dealing with scientific issues, including the employment of shadow experts appears in Sulyok 2021, pp. 82-84, and 87-88.

135 “[...] solid and legitimate conclusions can hardly be drawn regarding matters of ecological risks without considering the weight of relevant scientific reports submitted by the parties.” Sulyok 2021, p. 82.

account of the often irreversible character of damage to the environment [...]”. That is read as an allusion to the precautionary principle.¹³⁶

4.3. Precaution after the 1997 Judgment

The ICJ has never referred to the principle/approach as part of its own findings. In its arguments, New Zealand put great emphasis on the principle in an effort to reopen the dispute with France over nuclear testing, but the ICJ dismissed the request in 1995.¹³⁷ There was a passing remark in *Pulp Mills* with the important element that the approach does not lead to the reversal of the burden of proof.¹³⁸ The principle fared better in other tribunals, but the breakthrough was to come gradually and its acceptance may not be unconditional outside the EU. It is true that in 1998 the WTO did not give way to a precaution-based argument which the Commission called for in the dispute over beef hormones between the EU on the one side, and the US and Canada on the other, but it refrained from assessing whether it was a general principle of customary law.¹³⁹ The ITLOS went further both in the *Southern Bluefin Tuna* case between Australia and New Zealand, on the one hand, and Japan on the other (1999)¹⁴⁰ as well as in the *MOX Plant* case between Ireland and the UK (2000).¹⁴¹ It referred to the content of the principle approvingly, without formally endorsing it.¹⁴² The ITLOS became fully supportive of the principle with its Seabed Disputes Chamber in 2011, when it adopted its advisory opinion on “Responsibilities and obligations of States with respect to activities in the Area”.¹⁴³ The Tribunal responded to questions of the Council of the International Seabed Authority that related to legal obligations¹⁴⁴ of States

136 Brian McGarry, ‘Norms, Standards, and the Elusive Nomenclature of the Gabčíkovo-Nagymaros Judgment’, in Forlati *et al.* (eds.) 2020, p. 220.

137 ICJ, *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court’s Judgment of 20 December 1974 in the Nuclear Tests (New Zealand v France) Case*, Order of 22 September, ICJ Reports 1995, p. 288, paras. 5, and 34-35. More details in Sands *et al.* 2018, pp. 234-235.

138 ICJ, *Pulp Mills on the River Uruguay (Argentina v Uruguay)*, judgment, ICJ Reports 2010, para. 164.

139 *European Communities – Measures concerning Meat and Meat Products (Hormones)*, Report of the Appellate Body, WT/DS/26/AB/R and WT/DS/48/AB/R, 16 January 1998. “Whether it has been accepted by Member [of the WTO] as a principle of *general* or *customary* international law is less clear” 123. But the Appellate Body found it “unnecessary and probably imprudent” to take a position on that “important but abstract question”. *Id.*

140 ITLOS, *Southern Bluefin Tuna (New Zealand v Japan; Australia v Japan)*, Provisional Measures, Order of 27 August 1999, ITLOS Reports 1999, p. 280, para. 77: “in the view of the Tribunal, the parties should in the circumstances act with prudence and caution to ensure that effective conservation measures are taken to prevent serious harm to the stock of southern bluefin tuna.”

141 ITLOS, *MOX Plant (Ireland v United Kingdom)*, Provisional Measures, ITLOS No. 10, 3 December 2000. About the importance of the case, *see e.g.* Marcel Szabó, ‘The MOX Plant case: the way towards Euro-chauvinism?’, in Gyula Bándi (ed.), *The impact of ECJ jurisprudence on environmental law*, Szent István Társulat, Budapest, 2009, pp. 143-166.

142 Sands *et al.* 2018, pp. 236-237.

143 ITLOS, *Responsibilities and obligations of States with respect to activities in the Area*, Advisory Opinion, 1 February 2011, ITLOS Reports 2011, p. 10.

144 By comparing the different language versions of UNCLOS the Seabed Chamber established that the term “responsibility” in the relevant articles means “obligations” (and not responsibility for a wrongful act). *Id.* paras. 64-69, and 71.

Parties to the Law of the Sea Convention with respect to the sponsorship of mining activities in the deep seabed, which is the common heritage of mankind (the Area), including the measures to be taken in the exercise of that responsibility.¹⁴⁵ Under the heading “direct obligations of sponsoring states”, the Tribunal states that there is an obligation to apply the precautionary principle that is seen as a factor of due diligence. Due diligence is the duty of the Sponsoring State to ensure within its legal system “that a contractor so sponsored shall carry out activities in the Area in conformity with the terms of its contract and its obligations under this Convention”.¹⁴⁶ The Nodules Regulations and the Sulphides Regulations transform the principle of precaution as enshrined in the Rio Declaration into binding obligation.¹⁴⁷ But the scope of the precautionary approach extends beyond the mining regulations.

“[T]he precautionary approach is also an integral part of the general obligation of due diligence of sponsoring States, which is applicable even outside the scope of the Regulations. The due diligence obligation of the sponsoring States requires them to take all appropriate measures to prevent damage that might result from the activities of contractors that they sponsor. This obligation applies in situations where scientific evidence concerning the scope and potential negative impact of the activity in question is insufficient but where there are plausible indications of potential risks. A sponsoring State would not meet its obligation of due diligence if it disregarded those risks. Such disregard would amount to a failure to comply with the precautionary approach.”

The ECtHR has adopted decisions which refer to precaution in other contexts, such as giving birth at home,¹⁴⁸ but its practice concerning precaution and the environment is minimal. Mostly the 2009 *Tatar versus Romania* case¹⁴⁹ is mentioned in which the ECtHR confirmed the applicability of the principle in an industrial hazard context.¹⁵⁰ However, it has to be noted that by the time of the decision Romania was a member of the EU and the court intensively relied on EU related documents before venturing into the more general remark.

145 Id. para. 1.

146 UNCLOS, Annex III, Article 4(4).

147 ITLOS, *Responsibilities and obligations of States with respect to activities in the Area*, Advisory Opinion, para. 127.

148 ECtHR, *Dubská and Krejzová v the Czech Republic (GC)*, Nos. 28859/11 and 28473/12, 15 November 2016. The risk assessment element was important, see paras. 135, and 182.

149 ECtHR, *Tatar v Romania*, No. 67021/01, 27 January 2009.

150 Id. para. 120 (in French).

Limits must be set to this precursory review.¹⁵¹ In his *opus magnum*, De Sadeleer lists and analyses the legal fields of water resources, fisheries, nature protection, hazardous substances, nuclear energy, electromagnetic fields and climate change in respect of which the precautionary principle has been implemented.¹⁵² He reports on international, EU and national law and the jurisprudence within each field¹⁵³ and concludes that formulations of the principle vary among jurisdictions and among regulatory settings, reflecting different types of risk and levels of uncertainty.¹⁵⁴ A “risk of severe damage – and not irreversible or catastrophic – to health or the environment appears sufficient to trigger precaution.”¹⁵⁵ All in all, he takes a stand in favor of its customary law status, finding that

“[a]lthough some international courts have not always been favorable to the direct and autonomous application of the PP, we take the view that there has been repeated and widespread state practice accompanied by an *opinio juris* in order to crystallize precaution into a customary norm, at least from a European perspective.” [Footnote omitted]¹⁵⁶

Similarly, Philippe Sands and his co-authors consider it a principle of customary international law and within the EU, a rule of customary law.¹⁵⁷ Foster back in 2011 was more cautious, but she still recognized the existence of the principle. According to her, the principle had

“some legal effect in the sense that it has attracted an international consensus, increasingly informs states’ approaches to environmental issues, and may be relied upon in the reasoning of international tribunals on substantive points.”¹⁵⁸

To summarize the above: evidence points to a general consensus on the existence of the principle addressing uncertainty when a hazard has been identified that entails a large scale or serious or irreversible risk, the occurrence of which may not (or has not yet) been proven with scientific certainty. That is a long way from the ICJ’s perception that required a certain future damage as a precondition for suspending action that threatened an essential interest of a nation.

151 For a good overview of recent CJEU jurisprudence with further references, see Sara De Vido, ‘Science, precautionary principle and the law in two recent judgments of the Court of Justice of the European Union on glyphosate and hunting management’, *Saggi – DPCE [Diritto Pubblico Comparato ed Europeo]* online, 2020/2, or János Ede Szilágyi. ‘The Precautionary Principle’s ‘Strong Concept’ in the Case Law of the Constitutional Court of Hungary’, *Lex et Scientia International*, Vol. 26, Issue 2, 2019, pp. 88-112.

152 De Sadeleer 2020, p. 154.

153 Id. pp. 155-267.

154 Id. pp. 267-268.

155 Id. p. 268.

156 Id. p. 469.

157 Sands *et al.* 2018, p. 239.

158 Foster 2011, p. 244.

5. Intergenerational Equity – The Interests/Rights of Future Generations

This section will not follow the structure of the previous two, as intergenerational equity, that is, paying due regard to the interests/rights to future generations may have more blurred contours than EIA and precaution, even though the idea is increasingly gaining ground in courtrooms and moves beyond hortatory statements which abound.

The editor of this volume, Hungarian Constitutional Court justice Marcel Szabó was the drafter of the 2018 decision of the Hungarian Constitutional Court in a subsurface water usage case, in which the Constitutional Court clearly connected the precautionary principle with future generations.

“The responsibility deriving from the Fundamental Law for future generations¹⁵⁹ requires the legislator to assess and calculate the expected impact of its actions on the basis of scientific knowledge, in accordance with the precautionary principle and the principle of prevention.”¹⁶⁰

The Constitutional Court decision rules that the present generation is under an obligation to preserve choices for the future generation, the quality of the environment and the possibility to access these resources.¹⁶¹

With this reference to the three principles, we are at the foundation of the international legal theory of intergenerational equity, as first presented in 1989 by the pathbreaking monograph of Professor Edith Brown Weiss. There, she identified the conservation of options, of quality and of access as the three pillars of the theory of intergenerational fairness.¹⁶²

Starting the section with a judgment of the Hungarian Constitutional Court may be a tribute to the fact that this text appears in the Hungarian Yearbook of International Law and European Law, but it also moves the substance of this paper forward as it stresses the connection between the precautionary principle and future generations.

The core of the theory, frequently referred to as the planetary trust, may be summarized as the right of each generation to “receive the planet in no worse condition than did the previous generation, to inherit comparable diversity in the natural and cultural resource bases, and to have equitable access to the use and

159 The relevant provision of the Fundamental Law is Article P(1): “Natural resources, in particular arable land, forests and the reserves of water; biodiversity, in particular native plant and animal species; and cultural artefacts, shall form the common heritage of the nation, it shall be the obligation of the State and everyone to protect and maintain them, and to preserve them for future generations.”

160 Constitutional Court of Hungary, Decision No. 13/2018. (IX. 4.) AB, Reasoning [13]. For a detailed analysis see Szilágyi 2019, pp. 106-109; Marcel Szabó, “The Precautionary Principle in the Fundamental Law of Hungary: Judicial Activism or an Inherent Fundamental Principle? An Evaluation of Constitutional Court Decision No. 13/2018. (IX. 4.) AB on the Protection of Groundwater”, *Hungarian Yearbook of International Law and European Law*, Vol. 7, 2020, pp. 67-83.

161 Constitutional Court of Hungary, Decision No. 13/2018. (IX. 4.) AB, Reasoning [13].

162 Edith Brown Weiss, *In fairness to future generations: International law, common patrimony, and intergenerational equity*, United Nations University; Dobbs Ferry, Tokyo, Japan, 1989, pp. 40-45.

benefits of the legacy.”¹⁶³ Writing about the connection between precaution and intergenerational equity in 1998, Cameron, Wade-Gery and Abouchar¹⁶⁴ warn that we may not identify the utility of a present resource for future generations, therefore, precaution should not only extend to specific resource extraction industries. Talking about ozone and climate change they stress that under the threat of the disruption of life supporting endowments precaution should guide. Precaution is also needed, as the “real value of [a] resource or ecosystem to future generations may never be known and may be less or more than the cost to present generations of its preservation”, therefore the precautionary principle should guide decisions.¹⁶⁵

There are two roots of future generations appearing on the horizon of international law as entities whose rights/interests must be taken into account.¹⁶⁶ (i) The first root is the common heritage of mankind,¹⁶⁷ and (ii) the second is the principle of sustainable development and the implied environmental concerns.¹⁶⁸ The report of the UN Secretary General published in 2013¹⁶⁹ notes the philosophical and moral foundations and states that “[c]oncern for the needs of future generations therefore falls into the category of intergenerational equity or intergenerational justice, which is essentially the allocation of burdens and benefits across generations”. It confronts the identity problem (Parfitt paradox),¹⁷⁰ namely that our deeds may change the person of the future beneficiaries, by recalling the suggestion of seeing them as holders of group rights or assuming the intergenerational identity of the community (or mankind) as such.¹⁷¹ The detailed review in the report of references to future generations in international documents and national legislation and institutions, such as ombudspersons for future generations nevertheless ends with the UN Secretary General declaring that: “[a]t the international level, there exists no

163 Edith Brown Weiss, ‘Our Rights and Obligations to Future Generations for the Environment’, *American Journal of International Law*, Vol. 84, Issue 1, 1990, p. 202.

164 James Cameron *et al.*, ‘Precautionary Principle and Future Generations’, in Emanuel Agius & Salvino Busuttill (eds.), *Future generations and international law: Proceedings of the International Experts’ Meeting held by the Future Generations Programme at the Foundation for International Studies, University of Malta*, Earthscan, London 1998, pp. 110-113.

165 *Id.* p. 112.

166 This is not the place to decide if future generations have (legal) rights and the present generations corresponding obligations. For a succinct exposition, see Brown Weiss 2019, pp. 56-57.

167 Boldizsár Nagy, ‘Common Heritage of Mankind: The Status of Future Generations’, in *Proceedings of the Thirty-First Colloquium on the Law of Outer Space*, International Institute of Space Law, Washington D.C., 1988, pp. 319-325.

168 World Commission on Environment and Development, *Our Common Future*, (1987) [Brundtland report], at <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>.

169 *Intergenerational solidarity and the needs of future generations* UN Secretary General, UN Doc. A/68/322, 2013.

170 Derek Parfitt, *Reasons and Persons*, Oxford University Press, Oxford, 1984.

171 UN Secretary General, UN Doc. A/68/322, 2013, paras. 22-23.

legally binding instrument that specifically commits States to the protection of future generations.”¹⁷²

As regards the role of future generations in the pleadings, no separate legal argument was based on their interests or rights. Hungary quoted the letter of Prime Minister Németh from October 1989, in which he reminds his counterpart, Adamec on the duty to find a balance between construction and the demands of environmental protection and expresses his conviction that both governments were “guided by responsibility to future generations.”¹⁷³ In the context of the termination of the 1977 Treaty, Hungary anticipated the argument of the ITLOS, to come almost a decade later (mixed with the idea of prevention) when it pleaded that:

“Considering the present state of international law for the protection of the environment, a ‘well-governed state’ has a duty of diligence to avoid immediate and major risks to the health and livelihood of its present and future generations.”¹⁷⁴

As mentioned before, Slovakia put strong emphasis on sustainable development in its Counter-Memorial, so future generations got a few unspecific mentions. Beyond that Slovakia, in response to the above quote, assured readers that it was a well-governed state too, which protects present and future generations.¹⁷⁵ It also noted that “Slovakia shares with Hungary the belief that the emerging human right to the environment requires each generation to preserve and pass on its environmental patrimony to the next generation.”¹⁷⁶ Slovakia offered no detail what this would mean in terms of quality, options, minimal standards. The Hungarian reply nevertheless noted this acceptance¹⁷⁷ and stressed that the actual impact “on that patrimony” was crucial and one could not wait until the “damage was serious or irreversible”.¹⁷⁸ The Slovak Reply did not touch upon the position of future generations, the term “generation” was only combined with “electricity” and “power”. During the oral hearing only Hungary mentioned the future generations, of which let me recall the prophetic words of Pierre-Marie Dupuy, who, before the closing of Hungary’s first round of arguments recalled the “particular physiognomy” of the case and described it as being

“both archaic and prophetic and is thus articulated, or more exactly torn between what is to come and what has been; it confronts us with an anachronistic dam project while at the same time obliging us to consider the rights of future generations.”¹⁷⁹

172 Id. para. 36.

173 Hungarian Memorial, para. 3.93.

174 Id. para. 10.39.

175 Slovak Counter-Memorial, para. 10.115.

176 Id. para. 10.116.

177 Hungarian Reply, para. 3.109.

178 Id.

179 Hungarian Oral Pleadings, CR 97/6, p. 62.

Looking at the present position of future generations in international law, it may be noted that many of the old dilemmas are still with us.¹⁸⁰ In the Oxford Commentary to the Rio Declaration, published in 2015, Claire Molinari reviews the legal nature of Principle 3 (“The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations”). Following an evaluation of scholarly views she comes to the conclusion that it is still a guiding principle, “one that guides interpretation and provides context for decisions in international environmental law”.¹⁸¹ At the same time, she reminds us that both Judges Weeramantry and Cançado Trindade in their different dissenting opinions came closer to accepting intergenerational equity as a legal principle, albeit not expressly saying so.¹⁸²

The field in which manifest change has occurred is that of litigation in the interest of future generations, particularly in the context of the climate crisis. By 2020, more than a thousand cases have been brought in the US, and several hundred have been brought in the rest of the world.¹⁸³ Due to space constraints they cannot be reviewed or analyzed here, therefore, only two more recent and famous cases will be mentioned.¹⁸⁴

The first was decided by the Colombian Supreme Court in 2018.¹⁸⁵ In that case a group of young people complained about the fast deforestation of the Amazon and claimed that their rights to life, health, water, and food, was endangered as they would suffer harm from climate change when getting old. They requested the court to consider the principle of intergenerational equity both in relation to their own generation and generations to come.

“In its decision, the Supreme Court of Colombia applied the principle of intergenerational equity to ‘future generations, including the children who brought this action,’ and it ordered the government to formulate an

180 Brown Weiss 2019, pp. 56-58.

181 Claire Molinari, ‘Principle 3 From a Right to Development to Intergenerational Equity’, in Vinuales (ed.) 2015, “2. Precaution and the obligation to carry out an environmental impact assessment”. Similarly in 2020: Lydia Slobodian, ‘Defending the Future: Intergenerational Equity in Climate Litigation’, *Georgetown Environmental Law Review*, Vol. 32, Issue 3, 2020, p. 573.

182 Id.

183 Id. with further references.

184 A tribute has to be paid to *Oposa et al. v Fulgencio Factoran, Jr et al.*, [1993] GR, No 101083, in which the Philippines Supreme Court recognized that several minors, acting on behalf of themselves and future generations, had standing to challenge a timber licensing agreement the government had concluded with a private company; remarkably, the Court stated: “[E]very generation has a responsibility to the next to preserve the rhythm and harmony [of nature] for the full enjoyment of a balanced and healthful ecology. Put a little differently, the minors’ assertion of their right to a sound environment constitutes, at the same time, the performance of their obligation to ensure the protection of that right for the generations to come.” Quoted from: Helmut Philipp Aust & Georg Nolte (eds.), *The Interpretation of International Law by Domestic Courts. Uniformity, Diversity, Convergence*, Oxford University Press, Oxford, 2016, p. 122.

185 STC 4360-2018, at www.cortesuprema.gov.co/corte/wp-content/uploads/2018/04/STC4360-2018-2018-00319-011.pdf.

intergenerational pact for the life of the Colombian Amazon with active participation of the youth plaintiffs.”¹⁸⁶

The judgments’ spirit is holistic, it not only assumes that the succeeding generations owe the duty of solidarity to each other, but postulates a unity of the humans and other species as well.¹⁸⁷

In the European context a landmark decision is that of the German Constitutional Court.¹⁸⁸ The complainants asserted that the German Climate Change Act of 2019, that only had reduction targets up to 2030 and not beyond, unduly limited freedoms in the future after 2030 as it would require measures to achieve carbon neutrality that are much more drastic, than the ones foreseen until 2030. This means that the freedoms of those living beyond 2030 (including the applicants) would be unconstitutionally curtailed due to the lack of protection by the state, who failed to adopt a schedule that would more fairly distribute the burdens before and after 2030. The Constitutional Court recognized that

“The state’s duty of protection arising from Art. 2(2) first sentence GG [Constitution of Germany] also encompasses the duty to protect life and health against the risks posed by climate change, including climate-related extreme weather events such as heat waves, forest fires, hurricanes, heavy rainfall, floods, avalanches and landslides. It can furthermore give rise to an objective duty to protect future generations.”¹⁸⁹

In my view, what is decisive is that the German Constitutional Court extended protection to subsequent generations:

“It follows from the principle of proportionality that one generation must not be allowed to consume large portions of the CO₂ budget while bearing a relatively minor share of the reduction effort, if this would involve leaving subsequent generations with a drastic reduction burden and expose their lives to serious losses of freedom [...].”¹⁹⁰

Summing up this section, the interests/needs/rights of future generations, the precise requirements of intergenerational equity may not be fixed in binding international treaties or may not have become the basis of a customary law rule,

186 Slobodian 2020, p. 578.

187 Niehaus, Manuela, ‘Protecting Whose Children?: The Rights of Future Generations in the Courts of Germany and Colombia’, *Verfassungsblog*, 23 March 2022, at <https://verfassungsblog.de/protecting-whose-children/>.

188 Order of the First Senate of the Court (*Beschluss des Ersten Senats*), 24 March 2021, 1 BvR 2656/18, paras. 1-270, published on 29 April 2021. The full English version is available at www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/EN/2021/03/rs20210324_1bvr265618en.html.

189 *Bundesverfassungsgericht*, ‘Constitutional complaints against the Federal Climate Change Act partially successful’, Press Release No. 31/2021 of 29 April 2021.

190 Order of the First Senate, para. 192.

but through national constitutions, institutions and jurisprudence related to climate, biodiversity, nuclear power and hazardous activities, intergenerational equity creates a frame that will in an increasing fashion guide the interpretation and application of any norm with the potential of long term impact. The formation of a general principle of law recognized by the major legal systems of the world may actually be taking place right before our eyes, successfully overcoming theoretical hurdles of identifying choices of future generations or questions of standing and representation.

6. Weaving the Threads Together (Conclusion)

I promised a dialogue with the judgment which at this point requires weaving the threads together. It is time to offer a larger frame, in which an alternative to the past in the present appears as the blossoming of the buds mentioned above.

The aim of writing this chapter was to show that if the case were to go to a court today, the outcome could be different. What was incipient in 1997 has become full blown. The potential of the case to end in a judgment that contributes to long term thinking, genuine sustainability and precautionary aversion of unduly large risks could materialize. The interests of succeeding generations could be respected and protected, subsurface and surface water resources and biodiversity would suffer much less damage.

Thirty years ago I had proposed that the dispute can offer two readings: a modern and a postmodern one. The first was chosen by Czechoslovakia and then Slovakia, the second can be associated with the position of Hungary in the ICJ case.¹⁹¹

Below is a table summarizing the dichotomies (Table 1).¹⁹²

Environmental impact assessment, precaution and respect for intergenerational equity all belong to the postmodern mentality that does not make a fetish of growth, increased consumption based on an ever larger provision of energy and industrial goods produced with its help. Hungary was ready to suffer losses, including compensating Czechoslovakia for not building the Nagymaros barrage in order to relate to the environment and the ecological processes in a more respectful, sustainable way.¹⁹³

In his book's second edition in 2020 De Sadeleer stresses that in his view "post-modernity is less a complete rupture with modernity than the rediscovery of the values underlying modernity within an evolving context".¹⁹⁴ In 1997 the ICJ was not yet ready to accomplish that rediscovery of underlying values of modernity. It remained a prisoner of the black and white letters of the law and a doctrine of treaty law that could have been applied exactly the same way a

191 I can't simply say "with the position of Hungary" as that position is volatile and frequently obscure. More on the recent decades in Nagy 2021. *See also* Nagy 1992.

192 First published in Nagy 1992, p. 57, slightly updated.

193 Hungarian Memorial, para. 9.24.

194 De Sadeleer 2020, p. 405.

Table 1.

	Hungary	Czechoslovakia/Slovakia
Perspective	Long term perspective	Short term perspective
Value assessment	Discount rate low: high present value of future drinking water, near natural conditions	Discount rate high: hardly any value in the present of assets, resources to be consumed in remote future. Does not want to invest <i>now</i> for a return in fifty years
Care for posterity	Care for future generations, their life supporting systems and basic natural resources	Does not contemplate the situation of generations to come. "They should care for themselves, as we do for ourselves" – mentality.
Risk-management	Adoption of the precautionary principle regulating prudent behaviour in circumstances of uncertainty: according to this principle the lack of full and final scientific proof of future damage does not entitle going ahead; projects should be stopped even if there is "only" a high probability but not a certainty of the damage.	Belief in the technical fix: man is master of the universe, whatever he destroys, he can correct nothing is irreversible. A mere likelihood of immense future loss is not a reason to endure a qualitatively smaller, but certain present loss.
Market economy or else	Goods with no market value (the beauty of a landscape, the presence of irreplaceable archaeological sites, the richness of biodiversity) are nevertheless valuable, they deserve sacrifices including financial efforts.	Market economy dictates "reasonable market behaviour". Tradeable goods such as energy, navigational improvement have priority over symbolic values.
Survival vs growth	The goal is: balance with nature, sustainable existence (not necessarily development in terms of growth).	The goal is modernization in industrial terms, growth, expansion, domination over nature.

century earlier, all the calls for vigilance and references to the value of the environment notwithstanding. In 1997 the buds of postmodern, evolutive, future generations- and sustainability-oriented elements of environmental law that respect long term values no less than reward immediate state preferences could not yet burst the bark of traditional international law. But they were there, and 25 years on we can enjoy their late bloom.