

Reflections on Time Elements in the International Law of the Environment

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Only at one point are you outside time.
Dag Hammarskjöld, Markings

Abstract

No rule of international law can remain unaffected by time. In particular, rules of international law of the environment are sensitive to the passage of time. In the context of environmental protection, inter-temporal issues arise with regard to, *inter alia*, the interpretation of environmental treaties, the obligation of due diligence, and the application of the precautionary approach. An essential issue to be addressed is how it is possible to take account of time elements in the interpretation and application of rules of international environmental law. In this regard, further consideration must be given to evolutionary treaty interpretation, the evolving standard of due diligence, and inter-temporality of the precautionary approach. By examining these issues, this study aims to examine possible legal techniques to address inter-temporal aspects in the international law of the environment.

I. Introduction

Once a rule of law is established at a certain moment, the contents of the rule are fixed in time. In so doing, the rule stabilises the legal order. However, a society, national or international, is constantly changing as time goes by. An acute tension thus arises between rest and motion, and between legal stability and social dynamism. The antithesis between stability and change becomes a fundamental issue of law,¹ and the same applies to international law. Given that no rule, customary or conventional, can remain unaffected by time, the impact of time on the interpretation and application of rules of international law should be an important issue in the law.² The passage of

¹ Cf. *B. N. Cardozo*, *The Paradoxes of Legal Science*, reproduced in *Selected Writings of Benjamin Nathan Cardozo*, *The Choice of Tycho Brahe*, 1947, 257 et seq.; *M. Virally*, *La pensée juridique*, 1960, 188.

² Concerning time elements in international law, the following studies are of particular interest: *E. McWhinney*, *The Time Dimension in International Law, Historical Relativism and Intertemporal Law*, in: *J. Makarczyk* (ed.), *Essays in International Law in Honour of Judge Manfred Lachs*, 1984, 179 et seq.; *R. Higgins*, *Time and the Law: International Perspectives on*

time creates particular sensitivity around the interpretation and application of rules of the international law of the environment. In this regard, three issues merit highlighting.

The first issue pertains to the interpretation of treaties respecting environmental protection. Once a treaty is concluded, its text is frozen in time, unless it is amended. However, the political, economic and technical conditions which constituted a basis for the treaties may change with time. In particular, environmental knowledge and technology are developing rapidly. In order to protect the environment effectively, such new developments must be reflected in the interpretation and application of environmental treaties. An issue thus arises as to how one can take account of the change and development in the interpretation and application of these treaties.

The second issue involves the concept of due diligence. It is beyond serious argument that *sic utere tuo ut alienum non laedas* – which means “use your own property so as not to injure that of another” – reflects customary international law.³ It is generally understood that this principle provides an obligation to use due diligence not to cause transfrontier damage.⁴ The concept of due diligence is at the heart of the customary principle of *sic utere tuo ut alienum non laedas* since a State is not responsible for damage if it has paid such due diligence. However, due diligence is an elusive concept and it is difficult to set out objective criteria to determine whether a State complied with the obligation of due diligence in a specific context. A particular difficulty in this regard is that a standard of due diligence may change over time. This point was highlighted by the Seabed Disputes Chamber of the International Tribunal for the Law of the Sea (ITLOS), stating that:

“Among the factors that make such a description difficult is the fact that ‘due diligence’ is a variable concept. It may change over time as measures considered sufficiently diligent at a certain moment may become not diligent enough in light, for instance, of new scientific or technological knowledge.”⁵

an Old Problem, ICLQ 46 (1997), 501 et seq.; Société française pour le droit international, *Le droit international et le temps*, Colloque de Paris, 2001.

³ P. Sands/J. Peel/A. Fabra/R. Mackenzie, *Principles of International Environmental Law*, 3rd ed. 2012, 199; P. Birnie/A. Boyle/C. Redgwell, *International Law and the Environment*, 3rd ed. 2009, 137.

⁴ P. Birnie/A. Boyle/C. Redgwell (note 3), 137. See also, P. H. Okowa, *Procedural Obligations in International Environmental Agreements*, BYIL 67 (1996), 332; R. Pisillo-Mazzeschi, *The Due Diligence Rule and the Nature of the International Responsibility of States*, GYIL 35 (1992), 38.

⁵ *Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area* (Advisory Opinion), ITLOS Case No. 17 (1.2.2011), 36, para. 117. The text of the advisory opinion is available at the homepage of ITLOS <<http://www.itlos.org>>.

Likewise the International Law Commission (ILC), in its Commentaries on the Draft Articles on Prevention of Transboundary Harm from Hazardous Activities, stated that:

“What would be considered a reasonable standard of care or due diligence may change with time; what might be considered an appropriate and reasonable procedure, standard or rule at one point in time may not be considered as such at some point in the future. Hence, due diligence in ensuring safety requires a State to keep abreast of technological changes and scientific developments.”⁶

An issue thus arises as to how it is possible to take the time element into account in the standard of due diligence.

The third issue relates to the precautionary principle or approach. Although the definition of the precautionary approach varies depending on the instruments, in essence, it seeks to take early action in order to address serious environmental threats which may emerge in cases where there is ongoing scientific uncertainty concerning proof of cause and effect. The concept of the precautionary approach rests on the idea that sound environmental policy-making must not only address already identified environmental dangers but also prevent the emergence of such dangers in the future, since a healthy environment is fundamental for both present and future generations. In this sense, the precautionary approach is said to be a future-oriented approach on the basis of the idea of intergenerational solidarity.⁷ Under the precautionary approach, a need for taking preventive measures is to be determined on the basis of the existence of *probable* or *potential* risks. However, the proofs of such risks cannot be objectively established by present-day science. In fact, the assessment of *probable* or *potential* risks may change according to the progress of science over time.⁸ The level of such risks which is acceptable in a society may also change with time. In this sense, the precautionary approach is inter-temporal in nature.⁹ Here an issue arises with regard to mechanisms to address the inter-temporality of the precautionary approach.

⁶ ILC, Draft Articles on Prevention of Transboundary Harm from Hazardous Activities with Commentaries, ILCYB, Vol. II, Part 2 (2001), Commentary to Article 3, 154, para. 11.

⁷ U. Beyerlin/T. Marauhn, *International Environmental Law*, 2011, 52. While the terminology of this concept is not uniform, this study uses the term “precautionary approach”.

⁸ P. Martin-Bidou, *Le principe de précaution en droit international de l’environnement*, RGDIP 103 (1999), 651. See also L. Lucchini, *Le principe de précaution en droit international de l’environnement: ombres plus que lumières*, A.F.D.I. 45 (1999), 724.

⁹ Cf. Separate Opinion of Judge Cançado Trindade in the *Pulp Mills* case, ICJ Reports 2010, 169, para. 90.

Focusing on these three issues, this study seeks to examine legal techniques to address inter-temporality in international law of the environment. This contribution will contain three parts, dealing, respectively, with evolutionary treaty interpretation (part II.), the evolving standard of due diligence (part III.), and the inter-temporality of the precautionary approach (part IV.). Finally conclusions will be given in part V.

II. Evolutionary Interpretation of Environmental Treaties

1. Evolutionary Interpretation in the *Gabčíkovo-Nagymaros Project Case*

According to evolutionary treaty interpretation, treaties are considered as a “living instrument”, and the texts of the treaties are to be interpreted in an evolutionary manner by taking the development of norms and present-day standards into account.¹⁰ In so doing, a time element is incorporated into treaty interpretation. The evolutionary interpretation may be at issue particularly in the interpretation of human rights treaties,¹¹ constitutive instruments of international organisations,¹² and the WTO treaty.¹³ Evolu-

¹⁰ This part will focus on evolutionary interpretation of environmental treaties. Thus a comprehensive examination of evolutionary treaty interpretation falls outside scope of this consideration. Generally on this subject, see in particular, *G. Distefano*, L'interprétation évolutive de la norme internationale, RGDIP 115 (2011), 373 et seq.; *P.-M. Dupuy*, Evolutionary Interpretation of Treaties: Between Memory and Prophecy, in: E. Cannizzaro (ed.), *The Law of Treaties Beyond the Vienna Convention*, 2011, 123 et seq.; *M. Fitzmaurice*, Dynamic (Evolutive) Interpretation of Treaties: Part I, Hague Y. B. Int'l L. 21 (2008), 101 et seq.; by the same writer, *Dynamic (Evolutive) Interpretation of Treaties: Part II*, Hague Y. B. Int'l L. 22 (2009), 3 et seq.; *U. Linderfalk*, Doing the Right Thing for the Right Reason – Why Dynamic or Static Approaches Should be Taken in the Interpretation of Treaties, *International Community Law Review* 10 (2008), 109 et seq.; *R. Gardiner*, *Treaty Interpretation*, 2008, 250 et seq.; *T. Georgopoulos*, Le droit intertemporel et les dispositions conventionnelles évolutives: quelle thérapie contre la vieillesse des traités?, RGDIP 108 (2004), 123 et seq.; *D. W. Greig*, *Intertemporality and the Law of Treaties*, 2001.

¹¹ On this issue, see, for instance, *A. Drzemczewski*, The *Sui Generis* Nature of the European Convention on Human Rights, ICLQ 29 (1980), 54 et seq.; *P. van Dijk/G. J. H. van Hoof*, *Theory and Practice of the European Convention on Human Rights*, 1998, 77 et seq.; *R. Bernhardt*, *Evolutionary Treaty Interpretation, Especially of the European Convention on Human Rights*, GYIL 42 (2000), 11 et seq.; *G. Letsas*, *A Theory of Interpretation of the European Convention on Human Rights*, 2007, 58 et seq.

¹² *T. Sato*, *Evolving Constitutions of International Organizations*, 1996.

¹³ *J. Pauwelyn*, *The Nature of WTO Obligations*, Jean Monnet Working Paper 1/02 (2002), 34 et seq. This paper is available at: <<http://www.jeanmonnetprogram.org>>. See also *J.*

tionary interpretation also merits particular attention in the interpretation of environmental treaties. The 1997 *Gabčíkovo-Nagymaros Project* case between Hungary and Slovakia will provide an important insight into this subject since it is said to be the first case where the ICJ directly addressed the inter-temporal issues respecting environmental treaties.¹⁴ In this case, two inter-temporal issues in particular were raised.¹⁵

The first issue concerns Hungary's unilateral termination of the 1977 Treaty Between the Hungarian People's Republic and the Czechoslovak Socialist Republic Concerning the Construction and Operation of the Gabčíkovo-Nagymaros System of Locks (hereafter the 1977 Treaty).¹⁶ Hungary presented five arguments in support of the lawfulness of its notification of termination of the Treaty: (i) the existence of a state of necessity, (ii) the impossibility of performance of the treaty, (iii) the occurrence of a fundamental change of circumstances, (iv) the material breach of the treaty by Czechoslovakia, and (v) the development of new norms of international environmental law.¹⁷ Concerning the last argument, Hungary invoked the development of new norms and prescriptions of international environmental law as a basis for a fundamental change of circumstances provided in Art. 62 of the 1969 Vienna Convention on the Law of Treaties.¹⁸ However, the Court did not consider that new developments in the state of environmental knowledge and of environmental law could be said to have been completely unforeseen. According to the Court, "the formulation of Arts. 15, 19 and 20 [of the 1977 Treaty], designed to accommodate change, made it possible for the parties to take account of such developments and to apply them when implementing those treaty provisions".¹⁹ Thus the Court did not admit the claim of Hungary on this matter.

Pauwelyn, Conflict of Norms in Public International Law: How WTO Law Relates to Other Rules of International Law, 2003, 264 et seq.

¹⁴ A. A-Khavari, The Passage of Time in International Environmental Disputes, Murdoch University Electronic Journal of Law 10 (2003), para. 34. This article is available at: <<http://www.murdoch.edu.au>>.

¹⁵ This part relies partly on the result of the following study with modification: Y. Tanaka, Evolutive Interpretation of Treaties Concerning Environmental Protection: The 1997 *Gabčíkovo-Nagymaros Project* Case Revisited, in: C. Henrichsen/J. E. Rytter/S. Rønsholdt (eds.), Ret, Informatik og Samfund, 2010, 109 et seq.

¹⁶ Entered into force on 30.6.1978. For the text of the Treaty, see 1109 UNTS, 235; ILM 32 (1993), 1247 et seq.

¹⁷ The *Gabčíkovo-Nagymaros Project* case, ICJ Reports 1997, 58, para. 92.

¹⁸ ICJ Reports 1997, 59 et seq., paras. 64 and 95, para. 104; Memorial Submitted by Hungary, Vol. I, 2.5.1994, 304, para. 10.69.

¹⁹ ICJ Reports 1997, 65, para. 104.

Furthermore, Hungary claimed that it was entitled to terminate the 1977 Treaty because new requirements of international law for the protection of the environment precluded performance of the Treaty.²⁰ Nonetheless, the Court took the view that newly developed norms of environmental law were relevant for the implementation of the 1977 Treaty and the parties could, by agreement, incorporate them through the application of Arts. 15, 19 and 20 of the Treaty. In this regard, it held that:

“By inserting these *evolving provisions* in the [1977] Treaty, the parties recognized the potential necessity to adapt the Project. Consequently, *the Treaty is not static, and is open to adapt to emerging norms of international law*. By means of Articles 15 and 19, new environmental norms can be incorporated in the Joint Contractual Plan.”²¹

It thus found that the notification of termination by Hungary of 19.5.1992 did not have the legal effect of terminating the 1977 Treaty and related instruments.²² It follows that the Treaty is still in force between the parties.²³

The second issue concerns the rights and obligations of Hungary and Slovakia. In this regard, the Court considered that “the Project’s impact upon, and its implications for, the environment are of necessity a key issue”.²⁴ It thus held that:

“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.”²⁵

The Court further stated that:

“Owing to new scientific insights and to a growing awareness of the risks for mankind – for present and future generations – of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed, set forth in a great number of instruments during the last two decades. *Such new norms have to be taken into consideration, and such new standards*

²⁰ ICJ Reports 1997, 67, para. 111; Memorial Submitted by Hungary (note 18), 317 et seq., paras. 10.91-10.96.

²¹ Emphasis added. ICJ Reports 1997, 67 et seq., para. 112.

²² ICJ Reports 1997, 69, para. 115 and 82, para. 155 (1) (D).

²³ ICJ Reports 1997, 76, para. 132.

²⁴ ICJ Reports 1997, 77, para. 140.

²⁵ Emphasis added. ICJ Reports 1997, 77 et seq., para. 140.

*given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past.*²⁶

Overall the Court did seem to consider that Arts. 15, 19 and 20 of the 1977 Treaty are evolutive in nature.²⁷ In the *Gabčíkovo-Nagymaros Project* judgment, the Court did not present its own evolutionary interpretation of the terms of the treaty, but merely directed the manner of interpretation when the parties renegotiate the terms of the treaty pursuant to its Art. 5.²⁸ Even so, it is noteworthy that the Court accepted the evolutionary nature of environmental obligations set out in the treaty.

The Court's view was echoed by several judges. For instance, Judge *Weeramantry* stated that the "inter-temporal aspect of the present case is of importance to all treaties dealing with projects impacting on the environment".²⁹ According to the learned Judge, environmental rights are human rights. Hence treaties that affect human rights cannot be applied in such a manner as to constitute a denial of human rights as understood at the time of their application. Judge *Weeramantry* thus highlighted that:

"The ethical and human rights related aspects of environmental law bring it within the category of law so essential to human welfare that we cannot apply to today's problems in this field the standards of yesterday. Judge Tanaka reasoned that a party to a humanitarian instrument has no right to act in a manner which is today considered inhuman, even though the action be taken under an instrument of 40 years ago. Likewise, no action should be permissible which is today considered environmentally unsound, even though it is taken under an instrument of more than 20 years ago."³⁰

Likewise Judge *Herczegh* took the view that "it is in accordance with present-day requirements that the scope of the Parties' treaty obligations with regard to protection of the environment should be defined".³¹

The validity of the evolutionary interpretation of the 1977 Treaty was also discussed by Judge *Bedjaoui*. On the one hand, he highlighted that: "[T]he essential basis for the interpretation of a treaty remains the 'fixed reference' to contemporary international law at the time of its conclusion".³² On the other hand, as an exceptional case,³³ the learned Judge sup-

²⁶ Emphasis added. ICJ Reports 1997, 77 et seq., para. 140.

²⁷ *J. Sohnle*, *Irruption du droit de l'environnement dans la jurisprudence de la C.I.J.: L'affaire Gabčíkovo-Nagymaros*, RGDIP 102 (1998), 96 et seq.

²⁸ ICJ Reports 1997, 78, para. 141; *P.-M. Dupuy* (note 10), 129 et seq.

²⁹ Separate Opinion of Judge *Weeramantry*, ICJ Reports 1997, 114.

³⁰ ICJ Reports 1997, 114 et seq.

³¹ Dissenting Opinion of Judge *Herczegh*, ICJ Reports 1997, 178 et seq.

³² Emphasis original. Separate Opinion of Judge *Bedjaoui*, ICJ Reports 1997, 122, para. 8.

ported the evolutionary interpretation of Arts. 15, 19, and 20 of the 1977 Treaty. His view bears quoting:

“Articles 15, 19, and 20 of the 1977 Treaty are fortunately drafted in extremely vague terms (in them, reference is made to ‘*protection*’ – without any further qualification – of water, nature or fishing). In the absence of any other specification, respecting the autonomy of the will implies precisely that provisions of this kind are interpreted in an evolutionary manner, in other words, taking account of the criteria adopted by *the general law* prevailing in each period considered. [...] The new law, both the law of the environment and the law of international watercourses, may therefore advisedly be applied on the basis of Articles 15, 19 and 20 of the 1977 Treaty, for an ‘evolutionary interpretation’ of the Treaty.”³⁴

2. Evolutionary Interpretation and the Original Will of the Parties

It is generally agreed that the purpose of treaty interpretation is to give effect to the intentions of the parties to treaties.³⁵ According to this orthodox position, treaty interpretation continues to be governed by the memory of the past, i.e., the original will of the parties. As Sir *Humphrey Waldock*, the Special Rapporteur on the law of treaties, stated, “[t]he question whether the terms used were intended to have a fixed content or to change in meaning with the evolution of the law could be decided only by interpreting the intention of the parties”.³⁶ A similar view was expressed by *Jiménez de Aréchaga*.³⁷ Following this view, an issue to be addressed in the *Gabčíkovo-Nagymaros Project* case was whether or not one can identify a common intention of the parties which allows an evolutionary interpretation of the 1977 Treaty. However, the Court did not provide any evidence to show that Hungary and Czechoslovakia intended to interpret the terms of the Treaty in an evolutionary manner. As quoted earlier, the Court stated that “the parties recognised the potential necessity to adapt the Project”.

³³ ICJ Reports 1997, 122, para. 8.

³⁴ Emphasis original. ICJ Reports 1997, 124, para. 17.

³⁵ *Sir G. Fitzmaurice*, *The Law and Procedure of the International Court of Justice*, Vol. 1, 1993, 338; *P. Reuter*, *Introduction au droit des traités*, 3rd ed. 1995, 88; *A. Clapham*, *Brierly’s Law of Nations*, 7th ed. 2012, 349.

³⁶ ILCYB 1, Part Two, 1966, 199, para. 9.

³⁷ ILCYB 1, 1964, 34, para. 10.

Nonetheless, the mere reference to “the potential necessity” seems to be weak as an evidence of intention of the parties.³⁸

Normally the text of a treaty is a product of compromise, and the treaty terms may often be intended to conceal the failure to reach consensus.³⁹ In many if not most cases, some issues will simply not have been foreseen by the parties to a treaty.⁴⁰ In the UN Conference on the Law of Treaties, *Sinclair*, from the UK delegation, stated that:

“As a matter of experience it often occurred that the difference between the parties to the treaties arose out of something which the parties had never thought of when the treaty was concluded and that, therefore, they had had absolutely no common intention with regard to it.”⁴¹

In reality, it is not infrequent that a common intention of the parties to treaties is hard to identify in practice. Where the common intention cannot be identified with regard to the fixed or mobile nature of the treaty terms concerned, two issues must be examined.

The first issue concerns the application of the principle of contemporaneity to the interpretation of treaties. According to this principle, the terms of a treaty must be interpreted according to the meaning which they possessed at the date when the treaty was originally concluded.⁴² The principle of contemporaneity was affirmed by the ICJ in the *Rights of Nationals of the United States of America in Morocco* case of 1952. When construing Art. 20 of the 1787 and 1836 treaties between the United States and Morocco, the Court held that “it is necessary to take into account the meaning of the word ‘dispute’ at the times when the two treaties were concluded”.⁴³ Judge *Levi Carneiro*, in the *Minquiers and Ecrehos* case, also took the view that “an instrument must not be appraised in the light of concepts which are not contemporaneous with it”.⁴⁴ Nonetheless, there appears to be scope to con-

³⁸ *D. French*, Treaty Interpretation and the Incorporation of Extraneous Legal Rules, ICLQ 55 (2006), 296; *A. A-Khavari* (note 14), para. 43.

³⁹ *J. Stone*, Fictional Elements in Treaty Interpretation – A Study in the International Judicial Process, Sydney Law Review 1 (1953-55), 347 et seq.

⁴⁰ *F. G. Jacobs*, Varieties of Approach to Treaty Interpretation: With Special Reference to the Draft Convention on the Law of Treaties Before the Vienna Diplomatic Conference, ICLQ 18 (1969), 339.

⁴¹ First session, Vienna, 26.3.-24.5.1968, United Nations, Official Records, Summary Records of the Plenary Meeting and the Meetings of the Committee of the Whole, 177.

⁴² *G. Fitzmaurice* (note 35), 346 and 359. See also *I. Brownlie*, Principles of Public International Law, 7th ed. 2008, 633.

⁴³ The *Rights of Nationals of the United States of America in Morocco* case, ICJ Reports 1952, 189.

⁴⁴ Separate Opinion of Judge *Levi Carneiro* in the *Minquiers and Ecrehos* case, ICJ Reports 1953, 91.

sider the question as to whether the principle of contemporaneity can always be applied to all types of treaties, regardless of their legal character. As will be seen, certain categories of treaties, such as human rights treaties, are designed to be responsive to changes of political, economic and technical circumstances in the international community. Hence it seems reasonable to argue that the interpretative framework of treaties should differ according to the nature of the treaties.⁴⁵

The second issue pertains to the doctrine of inter-temporal law. It is common knowledge that *Max Huber*, the sole arbitrator in the 1928 *Island of Palmas* case, formulated this doctrine as follows: “[A] juridical fact must be appreciated in the light of the law contemporary with it, and not of the law in force at the time when a dispute in regard to it arises or falls to be settled”.⁴⁶ It seems that the principle of contemporaneity is based on this aspect of inter-temporal law. However, Judge *Huber* went on to state that:

“As regards the question which of different legal systems prevailing at successive periods is to be applied in a particular case (the so-called intertemporal law), a distinction must be made between the creation of rights and the existence of rights. The same principle which subjects the act creative of a right to the law in force at the time the right arises, demands that the existence of the right, in other words its continued manifestation, shall follow the conditions required by *the evolution of law*.”⁴⁷

In so stating, Judge *Huber* took an evolutive element into account in the inter-temporal law doctrine.⁴⁸ It follows that the doctrine of inter-temporal law consists of two elements, namely, a static element ensuring legal stability and an evolutive element which reflects the development of law, at the same time.⁴⁹ The dual requirement of inter-temporal law was clearly expressed in the Preamble of the 1975 Resolution of the *Institut de Droit International* on the Intertemporal Problem in Public International Law as follows:

⁴⁵ Cf. *Lord McNair*, *The Law of Treaties*, 1961, reprinted in 2003, 739 and 754. Furthermore, a comment to the Harvard Draft Convention on the Law of Treaties stated that: “No canons of interpretation can be of absolute and universal utility in performing such a task, and it seems desirable that any idea that they can be should be dispelled.” Harvard Law School, *Research in International Law*, in *Codification of International Law*, AJIL 29 (1935), 946.

⁴⁶ United Nations, *Reports of International Arbitral Awards* 2, 845.

⁴⁷ Emphasis added. *Reports of International Arbitral Awards* 2, 845.

⁴⁸ *D.-E. Khan*, *Max Huber as Arbitrator: The Palmas (Miangas) Case and Other Arbitrations*, EJIL 18 (2007), 169.

⁴⁹ *R. Gardiner* (note 10), 253; *T. O. Elias*, *The Doctrine of Intertemporal Law*, AJIL 74 (1980), 305.

“Whereas any solution of an intertemporal problem in the international field must take account of the dual requirement of development and stability.”⁵⁰

Thus the doctrine of inter-temporal law contains a dynamic element which has affinity with the evolutive interpretation of certain treaties.⁵¹ In this regard, an issue that arises is under what circumstances evolutionary interpretation of the text of a treaty may be allowed in light of inter-temporal considerations.

3. Key Elements of Evolutionary Treaty Interpretation

a) The Evolutionary Nature of a Generic Term

When considering this subject, one of the key elements may be the generic nature of the terms used in the text of a treaty. The meaning and scope of a generic term may vary depending on the circumstances when it is interpreted. In this sense, the generic term could be considered to give “mobile reference” to the law which will subsequently evolve with time. In fact, Judge *Higgins*, in the *Kasikili v. Sedudu Island* case, expressed the view that a “generic term” is “a known legal term, whose content the parties expected would change through time”.⁵² The evolutionary nature of the generic term has been affirmed by the international courts and tribunals. For example, the ICJ, in the 1971 *Namibia* Advisory Opinion, stated:

“Mindful as it is of the primary necessity of interpreting an instrument in accordance with the intentions of the parties at the time of its conclusion, the Court is bound to take into account the fact that the concepts embodied in Article 22 of the Covenant – ‘the strenuous conditions of the modern world’ and ‘the well-being and development’ of the peoples concerned – were not static, but

⁵⁰ Institut de Droit International, Le problème intertemporel en droit international public (the French text is authentic), Session of Wiesbaden, *Annuaire de l’Institut de droit international* 56 (1975), 537. The Resolution in English is available at: <<http://www.idi-iil.org>>.

⁵¹ In this regard, *M. Fitzmaurice* argued that “intertemporal law is one of the elements of the dynamic interpretation of treaties” (note 10), 118.

⁵² Declaration of Judge *Higgins* in the *Kasikili v. Sedudu Island (Botswana v. Namibia)*, ICJ Reports 1999, 1113, para. 2. See also ILC, Report of the International Law Commission, Fifty-eighth session, General Assembly, Official Records Sixty-first session Supplement No. 10 (A/61/10) (2006), 415 et seq., para. 23.

were by definition evolutionary, as also, therefore, was the concept of the ‘sacred trust’.”⁵³

In the 1978 *Aegean Sea Continental Shelf* Judgment, the ICJ interpreted the expression “the territorial status” used in Greece’s reservation to the General Act of 1928 in an evolutive manner due to the generic nature of the concept of territorial status and continuing duration of the General Act. The relevant passage of the judgment deserves quoting:

“While there may well be a presumption that a person transferring valuable property rights to another intends only to transfer the rights which he possesses at that time, the case appears to the Court to be quite otherwise when a State, in agreeing to subject itself to compulsory procedures of pacific settlement, excepts from that agreement a category of disputes which, though covering clearly specified subject matters, is of a generic kind. Once it is established that the expression ‘the territorial status of Greece’ was used in Greece’s instrument of accession as a generic term denoting any matters comprised within the concept of territorial status under general international law, the presumption necessarily arises that its meaning was intended to follow the evolution of the law and to correspond with the meaning attached to the expression by the law in force at any given time.”⁵⁴

Likewise, in the *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, the Appellate Body of the World Trade Organization (WTO) took the view that:

“[T]he generic term ‘natural resources’ in Article XX (g) [of the WTO Agreement] is not ‘static’ in its content or reference but is rather ‘by definition, evolutionary’.”⁵⁵

Thus, when the WTO Appellate Body interpreted the term “natural resources” in Art. XX (g) of the WTO Agreement, it held that measures to conserve exhaustive natural resources, whether living or non-living, may fall

⁵³ Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970), ICJ Reports 1971, 31, para. 53.

⁵⁴ The *Aegean Sea Continental Shelf* case, ICJ Reports 1978, 32, para. 77. The *Aegean Sea Continental Shelf* Judgment concerns the interpretation of a reservation to a treaty. However, the ICJ, in the 2009 *Costa Rica v. Nicaragua* case, considered that its reasoning in that case was fully transposable for the purposes of interpreting the terms of a treaty themselves. *Dispute regarding Navigational and Related Rights (Costa Rica v. Nicaragua)*, ICJ Reports 2009, 243, para. 66.

⁵⁵ *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, Doc. WT/DS58/AB/R, 12.10.1998, 48, para. 130.

within that provision.⁵⁶ The evolutionary nature of a generic term was also confirmed by the arbitral tribunal in the 2005 *Iron Rhine Railway* case between Belgium and the Netherlands. In this regard, the tribunal held that:

“It has long been established that the understanding of conceptual or generic terms in a treaty may be seen as ‘an essentially relative question; it depends upon the development of international relations’ (*Nationality Decrees Issued in Tunis and Morocco, P.C.I.J. Series B, No. 4 (1923)*, p. 24).”⁵⁷

More recently, the interpretation of a generic term was at issue in the 2009 *Costa Rica v. Nicaragua* case.⁵⁸ A principal issue in this case related to the interpretation of the phrase, “libre navegación ... con objetos de comercio”, in Art. VI of the 1858 Treaty. Nicaragua argued that for the purpose of the Treaty, “commerce” covers solely the purchase and sale of merchandise, of physical goods, and excludes all service, because in 1858 the word “commerce” necessarily meant trade in goods and did not extend to services. However, Costa Rica advocated that “commerce” includes, *inter alia*, the transport of passengers, tourists among them, as well as goods.⁵⁹ In this regard, the Court made the following important statement:

“[W]here the parties have used generic terms in a treaty, the parties necessarily having been aware that the meaning of the terms was likely to evolve over time, and where the treaty has been entered into for a very long period or is ‘of continuing duration’, the parties must be presumed, as a general rule, to have intended those terms to have an evolving meaning.”⁶⁰

In the Court’s view, this is the case in respect of the term “comercio” as used in Art. VI of the 1858 Treaty. The Court also noted that the 1858 Treaty was entered into for an unlimited duration. This signifies that it was intended to create a legal regime characterised by its perpetuity. It thus considered that the term “comercio” must be understood to have the meaning it

⁵⁶ United States – Import Prohibition of Certain Shrimp and Shrimp Products, Doc. WT/DS58/AB/R, 12.10.1998, 50, para. 131.

⁵⁷ *Arbitration regarding the Iron Rhine (“Ijzeren Rijn”) Railway (Belgium v. The Netherlands)*, Award of 24.5.2005, 36, para. 79. The Award is available at: <www.pca-cpa.org>.

⁵⁸ For a commentary on this case, see *Y. Tanaka*, Navigational Rights on the San Juan River: A Commentary on the *Costa Rica v. Nicaragua* Case, *Hague Justice Journal* 4 (2009), 215 et seq.; *M. Dawidowicz*, The Effect of the Passage of Time on the Interpretation of Treaties: Some Reflections on *Costa Rica v. Nicaragua*, *LJIL* 24 (2011), 201 et seq.

⁵⁹ ICJ Reports 2009, 240 et seq., paras. 58-59.

⁶⁰ ICJ Reports 2009, 243, para. 66. See also ICJ Reports 2009, 242, para. 64. See also presentation by Mr. *Kohen*, CR 2009/6, 35, para. 58.

bears on each occasion on which the Treaty is to be applied.⁶¹ Furthermore, the Court stressed that:

“[E]ven assuming that the notion of ‘commerce’ does not have the same meaning today as it did in the mid-nineteenth century, it is the present meaning which must be accepted for purposes of applying the Treaty.”⁶²

In conclusion, the Court found, unanimously, that the right of navigation for purposes of commerce enjoyed by Costa Rica includes the transport of passengers.⁶³ In so doing, it interpreted this provision in an evolutive manner.⁶⁴

In this regard, it is important to note that the evolutionary interpretation of the 1858 Treaty in the *Costa Rica v. Nicaragua* judgment relies on “the Parties’ common intention at the time the treaty was concluded”.⁶⁵ According to this position, evolutionary interpretation must be supported by the original will of the parties at the time the treaty was concluded. However, the Court’s view was criticised by Judge *Skotnikov* because “[n]o evidence submitted by the Parties showed that Nicaragua and Costa Rica intended at the time the Treaty was concluded to give an evolving meaning to the word ‘commerce’”.⁶⁶ Likewise the ICJ’s evolutionary interpretation in the 1978 *Aegean Sea Continental Shelf* judgment and the 1971 *Namibia* Advisory Opinion relied on the intention of the parties.⁶⁷ As *Thirlway* pointedly observed, however, there are serious doubts whether the evolutionary interpretation in these cases could be deduced from the actual intention of the parties to treaties concerned.⁶⁸ It appears that the intention of the parties in those cases was a legal fiction or at most a presumed intention. In a sense, the recourse to the fiction may not be without merit. When the original will of the parties to a treaty remains unclear, it can be argued that the Court has no choice but to rely on a presumed intention with a view to securing consistency with the canon of treaty interpretation. However, an issue that

⁶¹ ICJ Reports 2009, 243 et seq., paras. 67-70.

⁶² ICJ Reports 2009, 244, para. 70.

⁶³ ICJ Reports 2009, 269, para. 156(1)(b).

⁶⁴ *J. Crawford*, *Brownlie’s Principles of Public International Law*, 8th ed. 2012, 379.

⁶⁵ ICJ Reports 2009, 242, para. 64.

⁶⁶ Separate Opinion of Judge *Skotnikov*, 284, para. 5. See also *M. Dawidowicz* (note 58), 219 et seq.

⁶⁷ ICJ Reports 1978, 33, para. 78; ICJ Reports 1971, 31, para. 53.

⁶⁸ *H. Thirlway*, *The Law and Procedure of the International Court of Justice 1969-1989*, Part One, BYIL 60 (1989), 137 and 142 et seq.

arises is whether the use of the generic term alone is adequate to deduce the presumed intention of the parties in favour of evolutionary interpretation.⁶⁹

b) Inter-temporality Reflected in the Object and Purpose of the Treaty

In approaching this issue, a key element to be considered is the object and purpose of the treaty referred to in Art. 31 para. 1 of the 1969 Vienna Convention.⁷⁰ In the words of *Higgins*, “intention of the parties is often to be deduced from the object and purpose of the agreement”.⁷¹ Hence, to a certain extent at least, the object and purpose of treaties provide guidance for determining whether or not the parties to the treaty were thought to have committed themselves to a programme of progressive development.⁷² In light of their object and purpose, for instance, it can be reasonably presumed that certain types of treaties are intended to have a fixed content. The best example may be treaties establishing boundaries. Pursuant to the principle of stability, it can be considered that boundaries established by the parties concerned are not subject to change with time.⁷³ In fact, the ICJ, in the *Libya v. Chad* case, held that:

“The establishment of this boundary is a fact which, from the outset, has had a legal life of its own, independently of the fate of the 1955 Treaty. Once agreed,

⁶⁹ In the *Costa Rica v. Nicaragua* case, the ICJ’s mechanical test was criticised by Judge *Skotnikov*. Separate Opinion of Judge *Skotnikov*, 284, para. 6. See also *M. Dawidowicz* (note 58), 221; *D. French* (note 38), 297.

⁷⁰ In the discussion concerning inter-temporal law at the Institut de droit international, *Max Sørensen* posed the following question: “Si l’intention des parties à cet égard ne peut pas être établie, quelle est la solution qui s’impose par l’objet et le but du traité?” *M. Sørensen*, Le problème dit du droit intertemporel dans l’ordre international, *Annuaire de l’Institut de Droit International* 55 (1973), 91.

⁷¹ *R. Higgins* (note 2), 519.

⁷² Cf. ILC, Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law, Report of the Study Group of the International Law Commission, Finalized by *Martti Koskenniemi*, Doc. A/CN.47L.682, 13.4.2006, 242, para. 478(a). At the same time, it must be noted that in certain circumstances, the object and purpose of treaties may need interpreting. Generally on this issue, see *J. Klabbers*, Some Problems Regarding the Object and Purpose of Treaties, *Finnish Yearbook of International Law* 8 (1997), 138 et seq.; *I. Buffard/K. Zemanek*, The “Object and Purpose” of a Treaty: An Enigma, *Austrian Review of International and European Law* 3 (1998), 311 et seq.; *R. Gardiner* (note 10), 189 et seq.; *U. Linderfalk*, On the Interpretation of Treaties: The Modern International Law as Expressed in the 1969 Vienna Convention on the Law of Treaties 2007, 203 et seq.; *H. Thirlway*, The Law and Procedure of the International Court of Justice, Vol. II, (2013), 1257 et seq.

⁷³ *Temple of Preah Vihear* case, ICJ Reports 1962, 34.

the boundary stands, for any other approach would vitiate the fundamental principle of the stability of boundaries [...].”⁷⁴

On the other hand, several categories of treaties can be presumed to include a mobile content by nature.⁷⁵ Human rights treaties may be a case in point. Whilst no detailed consideration can be made here, it is generally recognised that the European Court of Human Rights has endorsed the evolutive interpretation of the European Convention on Human Rights.⁷⁶ In the *Tyrer v. United Kingdom* case, for instance, the Court clearly stated that “the Convention is a living instrument which [...] must be interpreted in the light of present-day conditions”.⁷⁷ In relation to this, *Bernhardt’s* view bears quoting:

“The object and purpose of a treaty plays, [...], a central role in treaty interpretation. This reference to object and purpose can be understood as entry into a certain dynamism. If it is the purpose of a treaty to create longer lasting and solid relations between the parties or to guarantee personal freedoms to citizens as well as foreigners, it is hardly compatible with this purpose to eliminate new developments in the process of treaty interpretation.”⁷⁸

In addition, as *Sato’s* thorough study has suggested, constitutive instruments of international organisations can also be thought to include concepts and terms of mobile reference and will be interpreted accordingly.⁷⁹

By the same token, there may be scope to argue that environmental treaties include inter-temporal elements when they bring present and future generations together.⁸⁰ As Principle 1 of the 1972 Declaration of the United Nations Conference on the Human Environment declared, man “bears a solemn responsibility to protect and improve the environment for present and future generations”. Principle 2 of the Declaration further stated that: “The natural resources of the earth, including the air, water, land, flora and

⁷⁴ *Territorial Dispute*, ICJ Reports 1994, 37, para. 72.

⁷⁵ *M. K. Yasseen*, L’interprétation des traités d’après la Convention de Vienne sur le droit des traités, RdC 151 (1976-III), 66 et seq.

⁷⁶ This issue has already been discussed by many writers. See note 11 of this study.

⁷⁷ *Tyrer v. United Kingdom* case, Judgment of 25.4.1978, Series A, No. 26, para. 31.

⁷⁸ *R. Bernhardt* (note 11), 16 et seq. See also *A. Orakhelashvili*, Restrictive Interpretation of Human Rights Treaties in the Recent Jurisprudence of the European Court of Human Rights, EJIL 14 (2003), 533 et seq.

⁷⁹ *T. Sato* (note 12), 259. In this regard, *Bernhardt* argued that: “For the basic documents of international organisations, the Charter of the United Nations provides probably the best example for the necessity of an evolutive interpretation.” *R. Bernhardt* (note 11), 21.

⁸⁰ Judge *Cançado Trindade* referred to “solidarity in time” in environmental protection. Separate Opinion of Judge *Cançado Trindade* in the *Pulp Mills* case, ICJ Reports 2010, 177 et seq., paras. 114-131.

fauna and especially representative samples of natural ecosystems, must be safeguarded for the benefit of present and future generations through careful planning or management, as appropriate.” As shown in these statements, one can argue that the safeguarding of the benefits for present and future generations is at the heart of environmental protection. Hence there appears to be scope to argue that in essence, inter-temporality is reflected in the object and purpose of environmental treaties. If this is the case, it can be reasonably presumed that environmental treaties include a mobile content by nature.

c) Art. 31 para. (3) lit. (c) of the 1969 Vienna Convention on the Law of Treaties

Furthermore, Art. 31 para. (3) lit. (c) of the Vienna Convention may be relevant.⁸¹ This provision stipulates that:

“There shall be taken into account, together with the context:

[...]

(c) any relevant rules of international law applicable in the relations between the parties.”

Originally this provision can be traced back to *Waldock's* proposal on draft Art. 56 which dealt specifically with inter-temporal law.⁸² It is argued that Art. 31 para. (3) lit. (c) presents a key element of the “principle of systemic integration” of norms of international law. In fact, this provision is increasingly referred to in international courts and tribunals, in particular, the European Court of Human Rights. An issue that arises is whether inter-temporality can be taken into account in treaty interpretation via Art. 31 para. (3) lit. (c). Some international decisions seem to support the use of this provision in taking account of inter-temporal elements in treaty interpreta-

⁸¹ For a detailed analysis of Art. 31 para. 3 lit. (c) of the Vienna Convention, see *D. French* (note 38), 300 et seq.; *C. McLachlan*, *The Principle of Systemic Integration and Article 31(3)(c) of the Vienna Convention*, ICLQ 54 (2005), 279 et seq.; *Y. Matsui*, *Principle of Integration in Treaty Interpretation, with Special Focus on Article 31(3)(c) of the Vienna Convention on the Law of Treaties (in Japanese)*, in: S. Sakamoto (ed.), *Current Issues of International Lawmaking. Festschrift in Honour of Professor Hisakazu Fijita's 70th Birthday, 2009*, 101 et seq.

⁸² This article was eventually omitted from the Vienna Convention. Cf. ILC, *Fragmentation of International Law: Difficulties arising from the Diversification and Expansion of International Law*, Report of the Study Group of the International Law Commission, Finalized by *Martti Koskenniemi*, Doc. A/CN.47L.682, 13.4.2006, 217, para. 431; *Y. Matsui* (note 81), 111 et seq.

tion. In the *OSPAR Arbitration* case between the United Kingdom and Ireland, for instance, the arbitral tribunal ruled that:

“Lest it produce anachronistic results that are inconsistent with current international law, a tribunal must certainly engage in *actualisation* or contemporization when construing an international instrument that was concluded in an earlier period.”⁸³

In this context, the Tribunal referred to Art. 31 para. (3) lit. (c) of the Vienna Convention. At the same time, the Tribunal cautiously added that it had not been authorised to apply “evolving international law and practice”.⁸⁴ It would seem to follow that only *lex lata* applicable to the parties can be considered by virtue of Art. 31 para. (3) lit. (c).

Another noteworthy case on this subject may be the *Arbitration Regarding the Iron Rhine (“IJzeren Rijn”) Railway* between Belgium and the Netherlands. As the Arbitral Tribunal stated, the problem of intertemporality in the interpretation of treaty provisions, in particular, Article XII of the 1839 Treaty of Separation was of great importance in the arbitration.⁸⁵ In this regard, the Tribunal recalled Art. 31 para. (3) lit. (c) of the Vienna Convention. According to the Tribunal, provisions of general international law should be taken into account in interpreting Article XII of the 1839 Treaty of Separation and Article IV of the Iron Rhine Treaty through this provision. Notably the Tribunal considered that environmental law and the law on development stand as mutually reinforcing, integral concepts, which require that where development may cause significant harm to the environment there is a duty to prevent, or at least mitigate, such harm and this duty has now become a principle of general international law. In the Tribunal’s view, this principle applies to activities undertaken in implementation of specific treaties between the parties.⁸⁶ In this regard, the Tribunal took the view that in the situation where new technical developments relating to the operation and capacity of the railway, an evolutive interpretation, which would ensure an application of the treaty that would be effective in terms of its object and purpose, would be preferred to a strict application of

⁸³ Emphasis original. *Dispute Concerning Access to Information under Article 9 of the OSPAR Convention (Ireland v. United Kingdom)*, 2.7.2003, 34, para. 103. The Award is available at: <www.pca-cpa.org>.

⁸⁴ *Dispute Concerning Access to Information under Article 9 of the OSPAR Convention*, 33, para. 101. Thus the Tribunal dismissed Ireland’s proposal that the 1998 Aarhus Convention, which had been ratified by neither the United Kingdom nor Ireland, or “draft proposals for a new EC Directive” be applied. Para. 104. However, Judge Griffith dissented to the majority opinion on this matter. Dissenting Opinion of Gavan Griffith, paras. 7-19.

⁸⁵ The *Arbitration Regarding the Iron Rhine Railway* (note 57), 28, para. 57.

⁸⁶ The *Arbitration Regarding the Iron Rhine Railway* (note 57), 28 et seq., paras. 58-59.

the intertemporal rule which requires to interpret Article XII according to juridical facts as they stood in 1839.⁸⁷ In summary, it can be argued that in the *Iron Rhine Railway* case, Art. 31 para. (3) lit. (c) opened the way to take the new development of general international law into account in the interpretation of the 1839 Treaty of Separation.

In the field of environmental protection, it is possible that new rules and standards will develop within a comparatively short period owing to the rapid development of environmental knowledge and practice. If this is the case, there will certainly be a need to take the new normative development into account in the interpretation of environmental treaties with a view to securing their effectiveness.⁸⁸ As shown in the *Iron Rhine Railway* case, in appropriate circumstances, the development of a new environmental norm may be taken into account in the interpretation of environmental treaties, as falling under “any relevant rules of international law applicable in the relations between the parties” set out in Art. 31 para. (3) lit. (c) of the Vienna Convention.⁸⁹

d) Limits of Evolutionary Interpretation of Environmental Treaties

Overall evolutionary interpretation seems to have a certain degree of legitimacy with regard to the interpretation of environmental treaties, unless the intentions of the parties are proved to be contrary. On the other hand, it must be noted that evolutionary interpretation does not automatically determine only one meaning of treaty provisions. In this regard, three points must be noted.

First, if, as the ICJ stated, new environmental norms and standards have to be taken into consideration in treaty interpretation, it is not easy to determine whether and what kind of norms have evolved since the conclusion of the original treaty. In the *Gabčíkovo-Nagymaros Project* case, Hungary claimed that the obligation not to cause substantive damage to the territory

⁸⁷ The *Arbitration Regarding the Iron Rhine Railway* (note 57), 36 et seq., paras. 79-80. See also *R. Gardiner* (note 10), 276 et seq.; *Y. Matsui* (note 81), 124 et seq.

⁸⁸ In this regard, the ICJ, in the *Kasikili v. Sedudu Island* case, held that: “In order to illuminate the meaning of words agreed upon in 1890, there is nothing that prevents the Court from taking into account the present day state of scientific knowledge [...]” ICJ Reports 1999, 1060, para. 20.

⁸⁹ Cf. *A. Clapham* (note 35), 358. Although no reference was made to Art. 31 para. 3 lit. (c) of the Vienna Convention, the ICJ, in the *Pulp Mills* case, considered that “a precautionary approach may be relevant in the interpretation and application of the provisions of the [1975] Statute”. The Statute between Argentina and Uruguay does not provide the application of this approach. *Pulp Mills on the River Uruguay* case, ICJ Reports 2010, 71, para. 164.

of another State had evolved into an *erga omnes* obligation of prevention of damage pursuant to the precautionary principle. Hungary thus argued that Czechoslovakia breached the obligation of the precautionary principle.⁹⁰ However, Slovakia contended that the precautionary principle had yet to ripen into a norm of general international law.⁹¹ In this regard, the Court did not specify the kind of contemporary environmental norms which must be taken into account in the interpretation of the relevant provisions of the 1977 Treaty.⁹²

Second, if new norms of international environmental law could be identified, it is not easy to determine their legal effects upon treaty interpretation. The Court, in the *Gabčíkovo-Nagymaros Project* case, did not clarify the legal consequence of the evolutionary interpretation of the provisions of the 1977 Treaty. Furthermore, there is no guarantee that the consideration of new norms and standards will lead to the same interpretation of treaty provisions between the parties. Accordingly, further consideration must be given to the legal effects of subsequently developed norms of international environmental law upon the interpretation of treaties in the judicial process.

Third, it must be noted that normally treaties are subject to parliamentary approval before ratification in accordance with the rules of many State's constitutions. This is an important procedure for ensuring democratic control over the conduct of the Government. Here a question might arise whether there is no problem in a treaty being "developed" by international judges, without any new parliamentary consent.⁹³ In reality, there is the risk that an "excessive" evolutionary treaty interpretation by international courts and tribunals will not be accepted by State parties to the treaty concerned. Given that the jurisdiction of the ICJ or any other international courts relies on the consent of the parties, the Court must deal with its cases with caution so as not to lose the confidence of the parties.⁹⁴

⁹⁰ ICJ Reports 1997, para. 97; Memorial Submitted by Hungary (note 18), 198 et seq., paras. 6.56-6.69.

⁹¹ Counter-Memorial Submitted by Slovak Republic, Vol. I, 5.12.1994, 271, para. 9.80.

⁹² *A. A-Khavari* (note 14), para. 46; *A. A-Khavari/D. R. Rothwell*, The ICJ and the *Danube Dam Case*: A Missed Opportunity for International Environmental Law?, Melbourne University Law Review 22 (1998), 527.

⁹³ *R. Bernhardt* (note 11), 23; *Y. Matsui* (note 81), 134.

⁹⁴ *O. J. Lissitzyn*, The International Court of Justice: Its Role in the Maintenance of International Peace and Security, 1951, 17.

4. Summary

The above discussion can be summarised as follows.

(i) The object of treaty interpretation is to give full and fair effect to the intention of the parties to the treaty. Where no common intention of the original parties to a treaty can be identified, however, a question arises with regard to the manner of the treaty interpretation. Considering the validity of evolutionary treaty interpretation, three elements must be taken into account: the use of a generic term, the object and purpose of treaties, and Art. 31 para. (3) lit. (c) of the 1969 Vienna Convention.

(ii) It can be observed that the international judicial bodies tend to interpret the generic term in an evolutionary manner. Furthermore, in essence, environmental treaties are thought to include inter-temporal aspects. Hence it can be reasonably presumed that environmental treaties are designed to be responsive to changes of environmental and technical circumstances surrounding them. The development of a new environmental norm may also be taken into account in the interpretation of environmental treaties as “any relevant rules of international law applicable in the relations between the parties” provided in Art. 31 para. (3) lit. (c) of the Vienna Convention. Thus, where a generic term is used in a relevant provision of an environmental treaty, there appears to be scope to argue that evolutionary interpretation of the provision concerned may have a certain degree of legitimacy, unless the intentions of the parties are proved to be contrary.

(iii) Evolutionary treaty interpretation does not always lead to only one meaning of relevant texts since the scope and legal effects of newly developed norms and standards are not always clear-cut. Caution is also necessary to avoid an “excessive” evolutionary treaty interpretation by international courts and tribunals. Thus there is a need for international courts and tribunals to avoid anticipating developments before they have occurred, whilst these courts may rule that in appropriate circumstances, evolutionary interpretation is needed to reflect *current* situation.⁹⁵

⁹⁵ Cf. *J. M. Merrills*, *The Development of International Law by the European Court of Human Rights*, 2nd ed. 1993, 80.

III. Evolving Standard of Due Diligence

1. The Use of Best Available Techniques (BAT) and Best Environmental Practice (BEP)

As noted, the concept of due diligence is at the heart of the customary principle of *sic utere tuo ut alienum non laedas*. If, as the ILC aptly observed, the level of due diligence changes with time, its standard must also evolve accordingly. Thus there is a need to explore an evolving standard of due diligence which can take account of changes of technology and environmental knowledge over time. In this regard, particular attention must be paid to an obligation to use BAT and BEP.

This obligation has been increasingly enshrined in treaties respecting environmental protection. Examples include the 1992 Convention on the Protection of the Marine Environment of the Baltic Sea Area (hereafter the Helsinki Convention),⁹⁶ the 1996 Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities (Syracuse Protocol),⁹⁷ and the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic (hereafter the OSPAR Convention).⁹⁸ In this regard, one might take the OSPAR Convention as an example. This Convention places a general obligation upon the Contracting parties to take all possible steps to prevent and eliminate pollution and take the necessary measures to protect the maritime area against the adverse effects of human activities.⁹⁹ To this end, the Contracting Parties are obliged to define with respect to programmes and measures the application of, *inter alia*, BAT and BEP, including, where appropriate, clean technology pursuant to Art. 2 para. (3) lit. (b) (i).

In accordance with Appendix 1 para. 2 of the OSPAR Convention, the term “best available techniques” means “the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting dis-

⁹⁶ Art. 6 para. 1. See also Annex II.

⁹⁷ Art. 5 para. 4. Entered into force 11.5.2008. The text of the Protocol is published in the Yb. Int'l Env. L. 7 (1996), 678 et seq.

⁹⁸ Entered into force on 25.3.1998.

⁹⁹ Art. 2 para. 1 lit. (a).

charges, emissions and waste”.¹⁰⁰ Notably, Appendix 1 para. 3 clearly states that:

“It therefore follows that what is ‘best available techniques’ for a particular process *will change with time* in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.”¹⁰¹

Under Appendix 1 para. 6 of the OSPAR Convention, the term “best environmental practice” is defined as “the application of the most appropriate combination of environmental control measures and strategies”. The same paragraph lists the graduated range of measures to be considered in making a selection for individual cases in some detail. Para. 7 then enumerates elements which should be considered in determining what combination of measures constitutes BEP. They comprise: (a) the environmental hazard of the product and its production, use and ultimate disposal, (b) the substitution by less polluting activities or substances, (c) the scale of use, (d) the potential environmental benefit or penalty of substitute materials or activities, (e) advances and changes in scientific knowledge and understanding, (f) time limits for implementation, (g) social and economic implications. Next, para. 8 highlights the evolutionary nature of BEP, by stating that:

“It therefore follows that best environmental practice for a particular source *will change with time* in the light of technological advances, economic and social factors, as well as changes in scientific knowledge and understanding.”¹⁰²

The evolutionary nature of BAT and BEP is also confirmed in the Helsinki Convention¹⁰³ and the Syracuse Protocol.¹⁰⁴

Under the obligation to apply BAT and BEP, States are required to review and update their technology and practice concerning environmental protection in the light of technological and scientific advances. If a State whose activities have caused serious environmental damage has failed to apply BAT and BEP, it would be difficult to claim that due diligence has been exercised. In this sense, it can be argued that the obligation to use BAT and BEP allows for the evolving standard of due diligence to change as technol-

¹⁰⁰ In accordance with para. 5 of Appendix 1, “techniques” include both the technology used and the way in which the installation is designed, built, maintained, operated and dismantled under para. 5.

¹⁰¹ Emphasis added. See also, para. 2 of Appendix 1.

¹⁰² Emphasis added.

¹⁰³ Regulation 4 of Annex II.

¹⁰⁴ Annex IV, paras. 3 and 8.

ogy develop with time.¹⁰⁵ The inter-linkage between the obligation of due diligence and the obligation to apply BEP was highlighted by the Seabed Disputes Chamber of ITLOS, stating that:

“[I]n light of the advancement in scientific knowledge, member States of the [International Seabed] Authority have become convinced of the need for sponsoring States to apply ‘best environmental practices’ in general terms so that they may be seen to have become enshrined in the sponsoring States’ obligation of due diligence.”¹⁰⁶

Arguably the same applies to the relationship between the obligation of due diligence and BAT.

2. Limits of BAT and BEP

Whilst the use of BAT and BEP can contribute to enhancing the quality of the obligation of due diligence, it cannot pass unnoticed that their application may encounter some difficulties in practice.

First, the identification of BAT and BEP may not always be a clear-cut one. A standard that represents BAT and BEP in one region may not be BAT and BEP in another since political, economic, ecological and technical backgrounds differ between States and regions.¹⁰⁷ Hence there is a concern that a dispute may arise as to whether a party properly applies BAT and BEP. In reality, the proper application of BAT was a matter of dispute in the *Pulp Mills* case between Argentina and Uruguay. In this case, Argentina maintained that Uruguay had failed to take all measures to prevent pollution by not requiring the Orion (Botnia) mill to employ the BAT. By contrast, Uruguay asserted that the Orion (Botnia) mill was one of the best pulp mills in the world, applying best available techniques and complying with European Union standards in the area.¹⁰⁸ In this regard, the ICJ noted that the Orion (Botnia) mill uses the bleached Kraft pulping process, which already accounted at the time for about 80 % of world’s pulp production

¹⁰⁵ The inter-linkage between due diligence and BAT/BEP is highlighted by *P. Birnie/A. Boyle/C. Redgwell* (note 3), 148.

¹⁰⁶ Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Advisory Opinion), ITLOS Case No. 17 (1.2.2011), 42, para. 136.

¹⁰⁷ *A. Nollkaemper*, Balancing the Protection of Marine Ecosystems with Economic Benefits from Land-Based Activities: The Quest for International Legal Barriers, *Ocean Dev. Int. Law* 27 (1996), 159.

¹⁰⁸ ICJ Reports 2010, 88, para. 220.

and was therefore the most applied production method of chemical pulping processes. The Court thus found that, from the point of view of the technology employed, there is no evidence to support the claim of Argentina that the Orion (Botnia) mill was not BAT-compliant in terms of the discharges of effluent for each tonne of pulp produced.¹⁰⁹

Second, it seems difficult for developing States to use BAT and BEP which would meet the most demanding regulatory requirements in the world. In this regard, the concept of common but different responsibility is at issue.¹¹⁰ According to this concept, less developed countries have different and more diminished obligations. It is true that this concept is increasingly incorporated in various international instruments, including Principle 7 of the Rio Declaration. As commentators aptly indicated, however, there are dangers in stressing differentiation of standard too much because it may allow less developed States to apply low standard of due diligence and remain free to pollute other States and their environment.¹¹¹ Arguably a State's capability to take protective measures would seem not to depend only on its own technology. It seems possible to introduce foreign advanced technology. Accordingly, technical and financial assistance to less developed States will be increasingly important with a view to ensuring the effective implementation of BAT and BEP in their territory.

Third, economic feasibility of the technology is a key factor in the implementation of BAT and BEP.¹¹² In fact, this factor is explicitly listed in Regulation 3 para. 1 of Annex II of the 1992 Helsinki Convention, Appendix 1 para. 2 lit. (c) of the 1992 OSPAR Convention, and Annex IV A para. 2 lit. (c) of the 1996 Syracuse Protocol. Consideration of economic feasibility may allow States to balance the use of BAT and BEP and economic interests. However, it seems difficult for a third party to objectively determine the validity of the balance because it is a matter of national policy. Thus there is a concern that the consideration of short-term economic interests may result in the avoidance of expensive but effective measures to protect the environment.¹¹³

¹⁰⁹ ICJ Reports 2010, 89, paras. 224 et seq.

¹¹⁰ *P. Birnie/A. Boyle/C. Redgwell* (note 3), 149.

¹¹¹ *P. Birnie/A. Boyle/C. Redgwell* (note 3), 149. In relation to this, it is relevant to note that in the *Pulp Mills* dispute, Argentina and Uruguay referred to the European Union standard, i.e., the December 2001 Integrated Pollution Prevention and Control Reference Document on Best Available Techniques in the Pulp and Paper Industry of the European Commission, as the industry standard in this sector. ICJ Reports 2010, 89, para. 224.

¹¹² *J. Ebbesson*, A Critical Assessment of the 1992 Baltic Sea Convention, *GYIL* 43 (2000), 47.

¹¹³ Cf. *L. de la Fayette*, The OSPAR Convention Comes into Force: Continuity and Progress, *Int'l J. Marine & Coastal L.* 14 (1999), 256 et seq.

3. Summary

The above considerations can be summarised as follows.

(i) BAT and BEP are evolutionary concepts. Hence, where the use of BAT and BEP is provided in a treaty, parties to the treaty are obliged to apply the most effective and appropriate techniques and practice to prevent environmental damage in light of the development of technology and environmental knowledge. Where a State has failed to apply BAT and BEP, that State can hardly claim that it has fulfilled the obligation of due diligence. Thus the obligation to use BAT and BEP can be said to provide an evolving standard of due diligence.

(ii) However, the identification of BAT and BEP is not free from difficulty. Furthermore, the implementation of BAT and BEP may be qualified by consideration of economic feasibility. Considering that the balance between the use of BAT/BEP and economic feasibility is a matter of national policy, not law, it will be difficult for a third party to judge the validity of the balance.

(iii) In essence, the obligation of due diligence involves the law of State responsibility concerning damage already caused. Thus a question as to whether a State has fulfilled the obligation of due diligence arises only after damage has been caused in the other State's territory in terms of establishing State responsibility. As the ICJ aptly stated in the *Gabčíkovo-Nagymaros Project* case,¹¹⁴ however, environmental damage is often irreversible. Thus much weight should be given to the prevention of such damage. Here the precautionary approach comes into play.

IV. Inter-temporality of the Precautionary Approach

1. Unforeseeable Future: The Difficulty with the Precautionary Approach

Concerning the application of the precautionary approach, curiously, one can detect two contrasting trends between treaty practice and judicial practice. Whilst the precautionary approach has been incorporated in a growing number of international instruments with regard to environmental protection, to date, international courts and tribunals have been wary about ap-

¹¹⁴ ICJ Reports, 1997, 78, para. 140.

plying the precautionary approach in international disputes.¹¹⁵ In fact, the ICJ, in the 1995 *Nuclear Tests II* and 1997 *Gabčíkovo-Nagymaros Project* cases, made no explicit mention of the “precautionary principle”, although the applicability of this principle was at issue in the judicial process. Furthermore, the WTO Appellate Body, in the *Beef Hormones* case, took the view that: “Whether it [the precautionary principle] has been widely accepted by Members as a principle of general or customary international law appears less than clear”.¹¹⁶ Thus the Panel did not make any definitive finding with regard to the legal status of this principle in international law. In the 2006 EC-Approval and Marketing of Biotech Products, the Panel took the view that:

“[T]he legal debate over whether the precautionary principle constitutes a recognized principle of general or customary international law is still ongoing. Notably, there has, to date, been no authoritative decision by an international court or tribunal which recognizes the precautionary principle as a principle of general or customary international law.”¹¹⁷

This judicial hesitation can also be seen in the ITLOS jurisprudence. In the 2001 *MOX Plant* case, for example, Ireland argued that the manufacture of MOX fuel at Sellafield involved significant risks for the Irish Sea, since such manufacture would inevitably lead to some discharges of radioactive substances into the marine environment, via direct discharges and through the atmosphere; and that the precautionary principle was applicable as a rule of customary international law. Nonetheless, ITLOS did not prescribe the provisional measures requested by Ireland, on the ground that there was no urgency of the situation in the short period before the constitution of the Annex VII arbitral tribunal.¹¹⁸ It is true that ITLOS considered that prudence and caution required that Ireland and the United Kingdom cooperate in exchanging information concerning risks or effects of the opera-

¹¹⁵ P.-M. Dupuy, *Le principe de précaution et le droit international de la mer*, in: *La mer et son droit, Mélanges offerts à Laurent Lucchini et Jean Pierre Quéneudec*, 2003, 215 et seq.; N. Schrijver, *The Status of the Precautionary Principle in International Law and Its Application and Interpretation in International Litigation*, in *Liber Amicorum Jean-Pierre Cot: Le procès international*, 2009, 241 et seq.

¹¹⁶ Report of the Appellate Body, *EC Measures Concerning Meat and Meat Products (Hormones)*, Doc. WT/DS26/AB/R, Doc. WT/DS48/AB/R, 16.1.1998, 45 et seq., para. 123 (original footnotes omitted).

¹¹⁷ WTO Panel Report, *European Communities-Measures Affecting the Approval and Marketing of Biotech Products (EC-Approval and Marketing of Biotech Products)*, Doc. WT/DS291/R, Doc. WT/DS292/R, Doc. WT/DS293/R, 29.9.2006, para. 7.88.

¹¹⁸ *MOX Plant case (Ireland v. United Kingdom) (Provisional Measures)*, ITLOS Case No. 10 (3.12.2001), ILM 41 (2002), 415, para. 81.

tion of the MOX Plant and in devising ways to deal with them.¹¹⁹ Nonetheless, no explicit mention was made with respect to the precautionary approach in this case.¹²⁰ Likewise ITLOS, in the 2003 *Land Reclamation* case, made no explicit reference to the precautionary approach, while the application of the ‘precautionary principle’ was discussed by the disputing parties.¹²¹

Arguably there are good reasons for judicial hesitation. As noted, the precautionary approach aims to take preventive measures in order to respond to probable or potential risks which cannot be objectively identified through present-day science but might create environmental damage in the future. However, “risk” is a complex concept which comprises the probability and scale of harm, the causes and effects of harm on human health, processes in question and their interaction over time.¹²² The assessment of potential risks which may trigger the application of the precautionary approach is often difficult to make since such risks may not be well known or it may not be possible to discover them through present-day science.¹²³ Non-foreseeability of potential risks can be considered an essential element of uncertainty with regard to the implementation of the precautionary approach. Moreover, the application of the precautionary approach itself does not automatically specify measures that should be taken. The precautionary approach can be applied in different ways in different contexts and times. Given that scientific knowledge and technology are constantly developing, appropriate preventive measures to respond to potential risks also change over time. The level of environmental risks which is socially acceptable also varies in time. In short, the implementation of the precautionary approach is essentially affected by time. Hence it seems difficult for international courts and tribunals to judge the breach of the obligation to apply the precautionary approach in a particular case. An issue to be considered is how it is possible to address the inter-temporality of the precautionary approach.

¹¹⁹ ILM 41 (2002), para. 84.

¹²⁰ See also Separate Opinion of Judge *Wolfrum*, ILM 41 (2002), 428 et seq.; Separate Opinion of Judge *Treves*, ILM 41 (2002), 431.

¹²¹ *Case concerning Land Reclamation by Singapore in and around the Straits of Johor (Malaysia v. Singapore)* (Provisional Measures), ITLOS Case No. 12 (8.10.2003), paras. 74 and 75.

¹²² *P. Birnie/A. Boyle/C. Redgwell* (note 3), 153.

¹²³ *P. Martin-Bidou* (note 8), 647.

2. Catching Signs of the Future: Environmental Impact Assessment (EIA) and Monitoring

We cannot control the passage of time, namely, the past, present and future. What we can do is to investigate the *present* world. Potential environmental risks which might arise or change over *time* must be examined as a matter of process of change in *space*. In this regard, EIA and a monitoring system merit serious consideration.¹²⁴

a) Inter-linkage between Environmental Impact Assessment, Obligation of Due Diligence and the Precautionary Approach

The 1991 Convention on Environmental Impact Assessment in a Transboundary Context (the Espoo Convention) defines EIA as “a national procedure for evaluating the likely impact of a proposed activity on the environment”.¹²⁵ An EIA is fundamental to any regulatory system which seeks to identify environmental risk and integrate environmental concerns into the decision-making process with regard to future projects. An EIA introduces public scrutiny and elements of independence and impartiality to the decision-making process.¹²⁶ In so doing, EIA seeks to detect environmental risks and impacts of a proposed project before authorising or funding the project. EIA can be thought to be a legal technique to catch signs of future environmental risks within a certain space. The signs themselves do not belong to the future, but the present. But, from them, the future can be to some extent envisaged. In this sense, EIA can be considered as a legal device to address inter-temporality in environmental protection.

¹²⁴ This subsection seeks to examine the role of EIA and a monitoring system from a spatial viewpoint. Generally on EIA, see *P. Sands/J. Peel/A. Fabra/R. Mackenzie* (note 3), 601 et seq.; *P. Birnie/A. Boyle/C. Redgwell* (note 3), 164 et seq.; *N. Craik*, *The International Law of Environmental Impact Assessment: Process, Substance and Integration*, 2008; *J. H. Knox*, *The Myth and Reality of Transboundary Environmental Impact Assessment*, *AJIL* 96 (2002), 291 et seq.; *K. R. Gray*, *International Environmental Impact Assessment: Potential for a Multilateral Environmental Agreement*, *Colo. J. Int'l Env'tl. L. & Pol'y* 11 (2000), 83 et seq.

¹²⁵ Art. 1 para. (vi). Text in *ILM* 30 (1991), 802. See also Preamble of Goals and Principles of Environmental Impact Assessment adopted by UNEP in 1987. Text in *P. Birnie/A. Boyle*, *Basic Documents on International Law and Environment*, 1995, 27 et seq.

¹²⁶ *P. Birnie/A. Boyle/C. Redgwell* (note 3), 165.

In practice, EIA has been increasingly enshrined in various binding and non-binding instruments respecting environmental protection.¹²⁷ For instance, Principle 17 of the Rio Declaration states that:

“Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.”

At the treaty level, the 1991 Espoo Convention is the most comprehensive treaty on this subject. Art. 2 para. 2 of the Convention places a clear obligation upon each Party to take necessary legal, administrative or other measures to implement the provisions of the Convention, “including the establishment of an environmental impact assessment procedure that permits public participation and preparation of the environmental impact assessment documentation described in Appendix II”.¹²⁸ Art. 2 para. 3 further obliges the Party of origin to ensure that “in accordance with the provisions of this Convention an environmental impact assessment is undertaken prior to a decision to authorise or undertake a proposed activity listed in Appendix I that is likely to cause a significant adverse transboundary impact”.¹²⁹ The Party of origin is obliged to furnish the affected Party with the EIA documentation pursuant to Art. 4 para. 2. The minimum information which shall be contained in the EIA documentation is specified in Appendix II.¹³⁰

Under treaties providing an obligation of EIA, arguably a State whose activities cause serious environmental damage could not deny the breach of the obligation of due diligence on grounds of non-foreseeability if it has not conducted EIA.¹³¹ This view seems to be echoed by the 2010 *Pulp Mills* judgment, which stated that:

“[D]ue 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 of its waters did not undertake an environmental impact assessment on the potential effects of such works.”¹³²

¹²⁷ Cf. Dissenting Opinion of Judge Weeramantry in the *Nuclear Test* case of 1995, ICJ Reports 1995, 344.

¹²⁸ Concerning public participation in relevant EIA, see Art. 2 para. 6.

¹²⁹ “Party of origin” means the Contracting Party or Parties to this Convention under whose jurisdiction a proposed activity is envisaged to take place under Art. 1 para. (ii).

¹³⁰ Art. 4 para. 1.

¹³¹ A. E. Boyle, Land-based Sources of Marine Pollution: Current Legal Regime, *Marine Policy* 16 (1992), 23; P.-M. Dupuy, *Soft Law and the International Law of the Environment*, *Mich. J. Int’l L.* 12 (1991), 434.

¹³² The *Pulp Mills on the River Uruguay* case, ICJ Reports 2010, 83, para. 204.

Furthermore, the ICJ went on to add 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”.¹³³ Likewise the Seabed Disputes Chamber of ITLOS, in its first advisory opinion, ruled that: “[T]he obligation to conduct an environmental impact assessment is a direct obligation under the Convention [UN Convention on the Law of the Sea] and a general obligation under customary international law”.¹³⁴

By identifying potential risks, an effective EIA will also assist decision-makers in determining whether the precautionary action must be taken. Indeed, it seems difficult to detect potential risks which may trigger the application of the precautionary approach, unless an effective EIA is carried out before a proposed project has begun. Accordingly, EIA and the precautionary approach must be integrally inter-linked.¹³⁵ It may not be unreasonable to argue that where an obligation to apply the precautionary approach is set out in a treaty, a State party to the treaty whose activities cause serious environmental damage could not deny the breach of the obligation if it has not conducted EIA effectively. In this sense, it can be argued that EIA provides a criterion to judge whether a State has fulfilled the obligation to apply the precautionary approach.

b) Inter-linkage between Environmental Impact Assessment and Monitoring

As environmental conditions may change with time, there is a need to continue monitoring the ongoing environmental risks and impacts after a project has begun. Accordingly, EIA must be complemented by a monitoring system. Normally monitoring is undertaken after the project has begun and seeks to check initial EIA predictions and provide information to enable national regulatory agencies to determine whether further measures are needed in order to prevent environmental harm.¹³⁶ The need for post-

¹³³ ICJ Reports 2010, 83, para. 204.

¹³⁴ Responsibilities and Obligations of States Sponsoring Persons and Entities with Respect to Activities in the Area (Advisory Opinion), ITLOS Case No. 17 (1.2.2011), 44, para. 145.

¹³⁵ Separate Opinion of Judge *Cançado Trindade* in the *Pulp Mills* case, ICJ Reports 2010, 171, para. 96.

¹³⁶ *P. Birnie/A. Boyle/ C. Redgwell* (note 3), 165.

project analysis was highlighted by Judge *Weeramantry* in the 1997 *Gabčíkovo-Nagymaros Project* case. The learned Judge stated that:

“I wish in this opinion to clarify further the scope and extent of the environmental impact principle in the sense that environmental impact assessment means not merely an assessment prior to the commencement of the project, but a continuing assessment and evaluation as long as the project is in operation. This follows from the fact that EIA is a dynamic principle and is not confined to a pre-project evaluation of possible environmental consequences. As long as a project of some magnitude is in operation, EIA must continue, for every such project can have unexpected consequences; and considerations of prudence would point to the need for continuous monitoring.”¹³⁷

Later, this view was echoed by the ICJ, in the *Pulp Mills* case, by stating that:

“The Court also considers that an environmental impact assessment must be conducted prior to the implementation of a project. Moreover, once operations have started and, where necessary, throughout the life of the project, continuous monitoring of its effects on the environment shall be undertaken.”¹³⁸

The need for monitoring the environment was also highlighted by ITLOS. In the 2001 *MOX Plant* case, it prescribed provisional measures ordering that Ireland and the United Kingdom shall enter into consultation in order to “monitor risks or the effects of the operation of the MOX Plant for the Irish Sea”.¹³⁹ Whilst the term “monitoring” was not used, ITLOS, in the 2003 *Land Reclamation* case between Malaysia and Singapore, requested that the parties shall enter into consultations in order to establish promptly a group of independent experts with the mandate to conduct a study to determine the effects of Singapore’s land reclamation and to propose, as appropriate, measures to deal with any adverse effects of such land reclamation.¹⁴⁰

The inter-linkage between EIA and monitoring is supported by treaty practice in the field of environmental protection. By way of example, Art. 7 para. 1 of the Espoo Convention highlights a need for a post project analysis, by providing that:

¹³⁷ Separate Opinion of Judge *Weeramantry* in the *Gabčíkovo-Nagymaros Project* case, ICJ Reports 1997, 111.

¹³⁸ ICJ Reports 2010, 83 et seq., para. 205.

¹³⁹ *MOX Plant* case (*Ireland v. United Kingdom*) (Provisional Measures), ITLOS Case No. 10 (3.12.2001), ILM 41 (2002), 419, para. 89(1)(b).

¹⁴⁰ *Case concerning Land Reclamation by Singapore in and around the Straits of Johor* (*Malaysia v. Singapore*) (note 121), para. 106 (1)(a)(i).

“The concerned Parties, at the request of any such Party, shall determine whether, and if so to what extent, a post-project analysis shall be carried out, taking into account the likely significant adverse transboundary impact of the activity for which an environmental impact assessment has been undertaken pursuant to this Convention. Any post-project analysis undertaken shall include, in particular, the surveillance of the activity and the determination of any adverse transboundary impact. Such surveillance and determination may be undertaken with a view to achieving the objectives listed in Appendix V.”

To take another example, Art. VI of the Aruba Protocol places an obligation upon each Contracting Party to formulate and implement monitoring programmes. Such programmes may, *inter alia*:

- “a. systematically identify and assess patterns and trends in the environmental quality of the Convention area; and
- b. assess the effectiveness of measures taken to implement the Protocol.”

A similar obligation to implement monitoring is provided in Art. VIII of the 1983 Protocol for the Protection of the South-East Pacific against Pollution from Land-Based Sources (Quito Protocol)¹⁴¹ as well as Art. 7 of the 1990 Protocol to the Kuwait Regional Convention for the Protection of the Marine Environment Against Pollution from Land-Based Sources (Kuwait Protocol).¹⁴² By combining EIA and a monitoring system, it may be possible to continuously check for any change in the environment over time and, as a consequence, to detect potential environmental risks.

On the other hand, many environmental treaties do not include detailed rules concerning the specific steps and requirements for undertaking EIA.¹⁴³ Hence there is a reasonable concern that an international dispute may arise with regard to the quality of EIA and monitoring particularly in the situation where transboundary pollution has occurred.¹⁴⁴ In the 2001 *MOX Plant* case, for instance, Ireland claimed that the United Kingdom had failed to cooperate with Ireland in the protection of the marine environment of the Irish Sea, *inter alia*, by refusing to carry out a proper environmental assessment of the impacts on the marine environment.¹⁴⁵ In the *Pulp Mills*

¹⁴¹ Entered into force in 1986. The text of the Protocol is available at: <<http://sedac.ciesin.org>>.

¹⁴² Entered into force on 2.1.1993. The text of the Protocol is available at: <<http://sedac.ciesin.columbia.edu>>.

¹⁴³ *N. Craik* (note 124), 89.

¹⁴⁴ *P. Birnie/A. Boyle/C. Redgwell* (note 3), 170. For a detailed analysis of interstate disputes concerning EIA, see *N. Craik* (note 124), 111 et seq.

¹⁴⁵ *MOX Plant* case (*Ireland v. United Kingdom*) (Provisional Measures), ITLOS Case No. 10 (3.12.2001), ILM 41 (2002), 408, para. 26.

case, the parties agreed on the necessity of conducting an EIA. Nonetheless, the parties disagreed with regard to the scope and content of the EIA that Uruguay should have carried out on the Orion (Botnia) mill project.¹⁴⁶ On this issue, the ICJ ruled that:

“[I]t is for each State to determine in its domestic legislation or in the authorisation process for the project, the specific content of the environmental impact assessment required in each case, having regard to the nature and magnitude of the proposed development and its likely adverse impact on the environment as well as to the need to exercise due diligence in conducting such an assessment.”¹⁴⁷

Here the Court may face criticism that it missed an opportunity to clarify the minimum requirements of EIA.¹⁴⁸ In any case, it may have to be accepted that the effectiveness of EIA, along with monitoring, relies essentially on the municipal law and capabilities of the originating State(s).¹⁴⁹

3. Summary

The above discussion can be summarised in three points.

(i) The existence of potential risks which might trigger the application of the precautionary approach is difficult to determine because they cannot be objectively identified with present-day science and the results of the assessment may vary over time. The inter-temporality involves an inherent difficulty with the application of the precautionary approach.

(ii) By combining EIA and a monitoring system, it becomes possible to continuously check the process of change of the environment. In so doing, EIA and a monitoring system visualise potential risks which may trigger the application of the precautionary approach within a certain space. Hence EIA and monitoring must be integrally inter-linked to the precautionary approach.

(iii) The quality of EIA and a monitoring system rests essentially on the good will of the originating State(s). In order to enhance its quality, institutionalisation of EIA and a monitoring system will be needed. This is particularly true of EIA and monitoring concerning transboundary pollution.

¹⁴⁶ ICJ Reports 2010, 82, para. 203.

¹⁴⁷ ICJ Reports 2010, 83, para. 205.

¹⁴⁸ *P. Sands/J. Peel/A. Fabra/R. Mackenzie* (note 3), 621.

¹⁴⁹ Cf. *L. Kong*, Environmental Impact Assessment under the United Nations Convention on the Law of the Sea, *Chinese Journal of International Law* 10 (2011), 660.

V. General Conclusions

The above considerations can be summarised as follows.

1) Environmental treaties are likely to be affected by the passage of time. Thus the validity of evolutionary interpretation is particularly at issue in the interpretation and application of these treaties. Although jurisprudence of international courts and tribunals is still fluid, it is argued that three elements must be considered when judging the validity of evolutionary interpretation of treaties: the use of a generic term, the inter-temporality reflected in the object and purpose of the treaties, and Art. 31 para. (3) lit. (c) of the 1969 Vienna Convention on the Law of Treaties.

2) There is a clear trend for international courts and tribunals to interpret the generic term in an evolutionary manner. Given that a healthy environment is fundamental for both present and future generations, it can be argued that environmental treaties are thought to include inter-temporal aspects to some extent. Thus, in essence, environmental treaties can be presumed to include a mobile content. Furthermore, the development of a new environmental rule may fall under “any relevant rules of international law applicable in the relations between the parties” provided in Art. 31 para. (3) lit. (c) of the Vienna Convention. Overall evolutionary interpretation of environmental treaty provisions which contain a generic term may have a certain degree of legitimacy, unless the intentions of the parties are proved to be contrary.

3) The inter-temporal issues also arise with regard to the application of the obligation of due diligence under customary international law. As the concept of due diligence is evolutionary in nature, its standard must also evolve with time. In this regard, it is argued that BAT and BEA can provide an evolutionary standard on this matter since the obligation to apply BAT and BEP requires States to review and update their protective measures according to technological and scientific development. If States have failed to apply BAT and BEA, arguably those States cannot be said to have fulfilled the obligation of due diligence.

4) The existence of potential risks which might trigger the application of the precautionary approach is difficult to identify with present-day science. The assessment of such risks may also change with the passage of time. It may be said that the inter-temporality of the precautionary approach involves an inherent difficulty with its practical application. In response, it is argued that EIA and a monitoring system which detect signs of future environmental risks have an important role to play in identifying potential risks required for the application of the precautionary approach. Thus the pre-

cautionary approach and EIA/monitoring system must be integrally inter-linked. One can argue that the implementation of EIA and monitoring is a pre-condition to fulfil the obligation to apply the precautionary approach.

5) The interpretation and application of rules of international environmental law give rise, to a greater or lesser extent, to inter-temporal issues since measures taken by public authorities of today may affect the living conditions of future generations. It can be argued that inter-temporality is an important element to be taken into account in the interpretation and application of rules of international environmental law.

