

‘The Role of Customary Rules and Principles in the Environmental Protection of Shared International Freshwater Resources’

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1 Introduction

In some respects, international law relating to the utilisation of shared freshwater resources has become much clearer in recent years. It is now beyond debate that the principle of ‘equitable utilisation’ is the pre-eminent rule relating to the utilisation of international watercourses. According to this rule, the determination of a reasonable and equitable regime for the utilisation of an international watercourse is usually understood in terms of consideration of a number of familiar relevant factors or criteria.¹ However, among the various factors impacting upon the application of this principle, it is possible to argue that considerations relating to the environmental protection of international watercourses are steadily increasing in terms of their significance and complexity. This is largely due to the emergence in general and customary international law of a comprehensive suite of rules, principles and legal concepts requiring enhanced protection of various aspects of the natural environment of international watercourses and riparian States. The normative content of such rules and principles is becoming increasingly clearly defined, both through their ongoing elaboration into a sophisticated corpus of legal requirements and through growing understanding of their mutual relevance. Indeed, it can be argued that it is the normative sophistication and comprehensive coverage of general environmental rules that give added ‘voice’ to environmental concerns within the determination of a reasonable and equitable regime for the utilisation of an international watercourse. In

* Faculty of Law, University College Cork, National University of Ireland. It should be noted that this is a very much shortened version of a quite detailed survey (of the ongoing emergence of substantive and procedural customary rules and principles of international environmental law and of their potential role in ensuring the environmental protection of international watercourses) reported over a number of chapters in my doctoral thesis. This paper seeks to set out indicative examples of relevant practice but, as it attempts to cover a wide range of established and emerging rules and principles, it could not hope provide a comprehensive account of all key developments. In shortening the paper, I have made every effort to remove text without losing the threads of thought and argument which, hopefully, continue to give it coherence.

¹ For example, Article 6(1) of the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses, (1997) 36 *ILM* 719 and Article V(2) of the International Law Association’s 1966 Helsinki Rules on the Uses of the Waters on International Rivers, ILA, *Report of the Fifty-Second Conference* 484, (Helsinki, 1966), both emphasise the following factors as relevant in determining whether the regime of allocation of uses and / or quantum-share of waters of a shared freshwater resource is reasonable and equitable:

- the social and economic needs of the watercourse States;
- the population dependent on the watercourse;
- the existing and potential uses of the waters;
- the efficiency of actual or planned utilisations;
- the effects on other watercourse States;
- the availability of alternative sources; and
- certain physical geographical characteristics of the watercourse.

addition, these rules and principles are increasingly supported by sophisticated rules of procedure, adding further to their normative clarity and justiciability.

This paper is based on a detailed survey and analysis conducted of declaratory and conventional instruments, of judicial and arbitrary practice, of recorded State practice, of codifications by intergovernmental agencies and learned associations, and of academic commentary, in relation to a number of established and emerging rules and principles of substantive and procedural international environmental law. These include, under substantive rules: the duty to prevent transboundary pollution; the duty to co-operate; the duty to conduct transboundary EIA; the doctrine of sustainable development; the principle of intergenerational equity; the principle of common but differentiated responsibility; the precautionary principle; the polluter pays principle, and the ecosystems approach. Under procedural rules, these include: the duty to notify; duties in relation to the ongoing exchange of information; the duties to consult and to negotiate in good faith; the duty to warn; and duties relating to the settlement of disputes. The survey and analysis involves an examination of the likely status of each rule or principle in customary international law and of its likely normative content. It then investigates the extent to which each has been applied to the law on international watercourses in particular, and whether and how each has been incorporated into key conventional instruments on the non-navigational uses of international watercourses. Further, it attempts to draw conclusions as to the likely impact of each rule or principle in relation to the significance of environmental considerations within the overarching doctrine of equitable utilisation of international watercourses.

While it is entirely beyond the scope of this paper to set out in detail conclusions regarding the substantive content and the normative status in international law of all the rules and principles of international environmental law which impact upon the utilisation of international watercourses, it is possible to highlight very briefly a number of such rules and principles, both substantive and procedural, which have been articulated in recent, highly influential conventions relating to the utilisation of international watercourses, and to point out the relevance of several of these rules and principles for the practical application and understanding of others and, ultimately, for the environmental protection of international watercourses. It is contended that the wide international acceptance and normative specificity and sophistication of the continually evolving corpus of general international environmental law, coupled with the existence of competent institutional machinery for its elaboration and implementation, give environmental considerations ever-increasing 'voice', and thus greater relative significance in the determination of a reasonable and equitable regime for the utilisation of international watercourses.

2 Substantive Rules and Principles of International Environmental Law

Notwithstanding the provisions of the 1997 UN Convention on the Non-Navigational Uses of International Watercourses² and other conventional provisions expressly concerned with the

² (1997) 36 *ILM* 719, (New York, 21 May 1997) Not yet in force. (Hereinafter, the 'UN Convention'). While 103 States approved the 1997 Resolution to adopt the Convention, ratifications remain insufficient to bring it into force. Under Article 36 of the Convention, entry into force requires 35 instruments of ratification, acceptance, accession, or approval, but as of July 2002, only 12 States were party to the Convention (see *United Nations Treaty Collection On-Line*, available at <http://www.untreaty.un.org>). However, though the Convention has not entered into force, it is likely to remain highly influential and persuasive as a statement of current customary and general international law on watercourses as it is the culmination of over 20 years

environmental protection of international watercourses, a number of customary international legal rules and principles can be argued to have developed in recent decades which might be expected to have a role to play in this regard. The existence and, to a lesser degree, the normative status of these rules and principles have largely been defined by ‘the progressive gathering of recurrent treaty provisions, recommendations made by international organizations, resolutions adopted at the end of international conferences, and other texts that can be said to have influenced State Practice’.³ Such rules include the obligation to prevent transboundary pollution and the rules relating to responsibility and liability for such pollution, the obligation to co-operate and the requirement for environmental impact assessment for projects having transboundary effects, while customary principles include the precautionary principle, sustainable development, intergenerational equity and common but differentiated responsibility. Other, emerging principles can be identified which may eventually form part of the corpus of relevant customary international environmental law, including the so-called ‘ecosystems approach’. The key significance of such rules and principles lies in the fact that, as the accumulated legal expression of environmental protection concerns by the international community, they indicate the issues which are likely to be identified and articulated as central in the environmental protection of international rivers and the means by which such issues are likely to be considered. The normative content of the rules and principles of customary and general international law on the environment is likely to inform the interpretation and application of the rules and principles which are set out in outline in the environmental provisions of the 1997 Convention and other relevant instruments. Indeed, it is later submitted that it is largely by virtue of the very sophistication and extensive elaboration of these substantive and procedural rules and principles of general international environmental law that environmental considerations are likely to enjoy such prominent status as a factor in determining an equitable regime for the utilisation of shared freshwater resources. Further, customary international law is likely to continue to play a significant residual role in the settlement of international environmental disputes concerning shared water resources as it may apply to States which are not party to the 1997 Convention or other conventional arrangements or to disputes between State parties which are not covered by the Convention due to the use of reservations. Indeed, before referring the topic of the non-navigational uses of international watercourses to the International Law Commission for codification, the UN General Assembly recognised that, despite the existence of numerous treaties governing the use of particular international rivers, most situations were covered by customary, not conventional, international law.⁴

In recent years, debate has raged over the precise legal status of many international environmental norms and principles which are often assumed to enjoy binding force in customary international law. Taking an examination of actual State behaviour as the basis for determining

of in-depth research by the International Law Commission into the state of international watercourse law and practice.

³ P. M. Dupuy, ‘Overview of the Existing Customary Legal Regime Regarding International Pollution’, in D. B. Magraw, *International Law and Pollution*, (University of Pennsylvania Press, Philadelphia, 1991), 61 at 61.

⁴ See, *Survey of International Law*, Working Paper prepared by the Secretary-General in the Light of the Decision of the Commission to Review its Programme of Work, UN Doc. A/CN.4/245 (1971), para. 285, at 141. See further, G. Hafner and H. L. Pearson, ‘Environmental Issues in the Work of the International Law Commission’, (2000) 11 *Yearbook of International Environmental Law* 3, at 11.

whether a norm is part of customary law, Bodansky notably concludes that, '[A]ccording to the orthodox account of customary international law, few principles of international environmental law qualify as customary'.⁵ Having regard to several purported norms of customary international law, including the prohibition on transboundary harm, the precautionary principle and the duty to notify, he observes that, with the possible exception of the International Law Commission and some work of the International Law Association, legal writers' assertions about customary international law are not based on surveys of State behaviour but on the utilisation of texts produced by States and by non-State actors, such as courts, arbitral panels, intergovernmental and non-governmental organisations and legal scholars.⁶ Such texts include cases, statutes, treaties, codifications, resolutions and declarations. Therefore, he characterises these norms as 'declarative'⁷ rather than customary law but concedes that, while their usefulness may be limited in relation to third-party dispute settlement by courts and arbitral tribunals, such norms have an important role to play in terms of voluntary compliance and in terms of bilateral and multilateral negotiations.⁸ Indeed, as courts and arbitral tribunals play, at least as yet,⁹ a relatively minor role in the resolution of international environmental disputes, 'declarative' norms of international

⁵ D. Bodansky, 'Customary (and Not So Customary) International Environmental Law', (1995) 3 *Global Legal Studies Journal* 105, at 112. See also, H.E. Chodosh, 'Neither Treaty Nor Custom: The Emergence of Declarative International Law' (1991) 26 *Texas International Law Journal*, 87 and N. C. H. Dunbar, 'The Myth of Customary International Law' (1983) 8 *Australian Yearbook of International Law*.

⁶ *Ibid.*, at 113.

⁷ *Ibid.*, at 116, See also, Chodosh, *supra*, n. 5.

⁸ *Ibid.*, at 117-119. See further, M. Ehrmann, 'Procedures of Compliance Control in International Environmental Treaties', (2002) 13 *Colorado Journal of International Environmental Law and Policy*, 377-443. See generally, selected essays in D. Shelton (ed.), *Commitment and Compliance: The Role of Non-Binding Norms in the International Legal System* (OUP, Oxford, 2000), and in particular, A. Kiss, 'The Environment and Natural Resources: Commentary and Conclusions', at 223-242.

⁹ Bodansky speculates that '[T]he establishment of an environmental chamber of the International Court of Justice and the recent cases between Nauru and Australia and between Hungary and Slovakia may signal the emergence of a greater judicial role', *ibid.*, at 117. Similarly, Judge Stephen Schwebel has noted that '[A] greater range of international legal fora is likely to mean that more disputes are submitted to international judicial settlement. The more international adjudication there is, the more there is likely to be; the "judicial habit" may stimulate healthy imitation', *Annual Report of the ICJ to the 54th General Assembly*, UN Doc. A/54/PV.39, 26 October 1999, at 3, and that 'increase in recourse to the Court [International Court of Justice] is likely to endure, at any rate if a state of relative détente in international relations endures', *Annual Report of the ICJ to the 53rd General Assembly*, UN Doc. A/53/PV.44, 27 October 1998, at 4. On the background to the establishment of the Environment Chamber of the ICJ and the growing number of environmental cases coming before the Court, see M. Fitzmaurice, 'Environmental Protection and the International Court of Justice', in V. Lowe and M. Fitzmaurice (eds.), *Fifty Years of the International Court of Justice* 293, at 305-314. In relation to the Mediation and Conciliatory Committee of the Organisation of African Unity, see T. O. Elias, 'The Charter of the Organisation of African Unity' (1965) 59 *American Journal of International Law* 243, at 263-264.

environmental law can, by exerting a compliance pull on States¹⁰ and, more importantly, by influencing negotiations and other second-party control mechanisms, play a very significant role.¹¹

Further, international environmental norms, though declaratory in nature, can be expected to play a significant role in informing the rules and principles contained in the 1997 Convention and other treaty instruments. As Dupuy points out

A number of *guidelines* emitted by these bodies ... [international institutions, both intergovernmental and, at a lower stage, non-governmental (*e.g.*, the Institut de Droit Internationale, the International Law Association, and the International Union for Conservation of Nature)] ... have penetrated gradually into contemporary State practice. In certain cases, these guidelines bring an important contribution to the definition of international standards on the basis of which the due diligence to be expected from “well-governed” modern States can be established.¹²

More specifically, Dupuy suggests that both trends identified in treaty practice and soft law guidelines defined by international institutions can be taken into consideration ‘to define more concretely the material contents of “due diligence”’.¹³

Of course, the consistent inclusion of normative rules and principles in the declarations and resolutions of international organisations, and of the United Nations in particular, contributes significantly to the process of custom generation. As Judge Tanaka commented, in his dissenting opinion in the *South West Africa Case (Second Phase)*, in relation to repeated pronouncements in UN resolutions and declarations:

This collective, cumulative and organic process of custom generation can be characterised as the middle way between legislation by convention and the

¹⁰ See further, T. M. Franck, *The Power of Legitimacy Among Nations*, (1990), at 41-42; M. E. O’Connell, ‘Enforcement and the Success of International Environmental Law’ (1995) 3 *Indiana Journal of Global Legal Studies*, 47.

¹¹ Indeed, Bodansky concludes, *supra*, n. 5, at 118-119, that ‘the biggest potential influence of these norms is on second-party control mechanisms. Most international environmental issues are resolved through mechanisms such as negotiations, rather than through third-party dispute settlement or unilateral changes of behaviour. In this second-party control process, international environmental norms can play a significant role by setting the terms of the debate, providing evaluative standards, serving as a basis to criticize other states’ actions, and establishing a framework of principles within which negotiations may take place to develop more specific norms, usually in treaties’.

¹² *Supra*, n. 3, at 61. He further concludes, *ibid.*, at 62, that ‘Soft law [international directives or undertakings that are not, strictly speaking, binding in themselves] must be taken into account in the tentative analysis and interpretation of what is certainly already “hard law”, that is, international directives or undertakings that are binding of their own accord under international law’.

¹³ *Ibid.*, at 69.

traditional process of custom making and can be seen to have an important role from the viewpoint of development of international law.¹⁴

This process might be expected to have made a particularly significant contribution to the development of international environmental law where the use of soft law declaratory instruments has been so widespread. Also, though some prominent commentators have maintained that, in relation to the formation of custom, ‘what states do is more important than what they say’,¹⁵ others, notably Akehurst, criticise this distinction between the ‘material components’ and other ‘elements’ of ‘practice’, noting that ‘it is artificial to try to distinguish between what a state does and what it says’.¹⁶ Indeed, Hohmann notes that, like ‘no other area of international law, [international environmental law] is influenced by such a multitude of guidelines, resolutions and other declarations’, the grouping of which documents ‘in the category of soft law (in contrast to hard law) does not do justice to the peculiarities of modern ways of making international environmental law’.¹⁷ He takes the view that for the purpose of identifying customary law, State practice may be reduced to diplomatic practice where the following three criteria are fulfilled:

1. the values at the basis of the resolutions concerned are shared by all States – and all States see the need to establish the legal rule quickly;
2. there must be an absence of pre-existing customary law to be displaced; and
3. there should be limited evidence of (external) State practice.¹⁸

Hohmann sees the primary role of soft-law instruments in the identification of custom as that of ‘the solidifying of indicators for a documentation of the *opinio juris*’ of States.¹⁹ However, he also points out that

the establishment of duties of customary law has also occurred through agreements ... if indications exist for the formation of *opinio juris*, if an agreement adopts this rule, if the rule can be generalized and if it is contained in a global agreement or in at least two regional agreements of two different regions.²⁰

¹⁴ (1966) ICJ Rep. 248, at 292.

¹⁵ S. M. Schwebel, ‘The Effect of Resolutions of the U.N. General Assembly on Customary International Law, (1979) *Proceedings of the American Society of International Law*, at 304. See, in support of this view, A. A. d’Amato, *The Concept of Custom in International Law*, (New York, 1971), at 88-91. See generally, H. Meijers, ‘On International Customary Law in the Netherlands’ in I. F. Dekker and H. H. G. Post (eds.), *On The Foundations and Sources of International Law* (T.M.C. Asser Press, The Hague, 2003) 77, at 83-84.

¹⁶ M. Akehurst, ‘Custom as a Source of International Law’ (1974-75) 47 *British Yearbook of International Law*, at 3.

¹⁷ H. Hohmann, *Precautionary Legal Duties and Principles of Modern International Environmental Law* (Graham & Trotman, London, 1994), at 335.

¹⁸ *Ibid.*

¹⁹ *Ibid.*, at 336.

²⁰ *Ibid.*, at 337.

Therefore, 'rules of customary law initiated through declarations find their way into agreements and vice versa'.²¹

At any rate, the single most important source of rules and principles that may have crystallised into generally binding norms of customary international environmental law is the accumulated corpus of relevant multilateral and bilateral treaty provisions. As Sir Robert Jennings declared in a statement made to the United Nations Conference on Environment and Development, it is

a principal task of the ICJ to decide, applying well-established rules and criteria, whether the provisions of multilateral treaties have or have not developed from merely contractual rules into rules of general customary international law.²²

Of course, the consistent inclusion of a provision of a particular normative character in bilateral treaties also provides significant evidence of acceptance of a rule in international law. In relation to shared water resources in particular, by 1963 a UN publication²³ had listed 253 treaties on non-navigational uses of international rivers and in 1974 another UN document identified a further 52 bilateral and multilateral agreements that had been concluded in the intervening period.²⁴ Clearly, this reservoir of treaty practice has greatly assisted the International Law Commission in the elaboration of the 1994 Draft Articles which formed the basis of the 1997 Convention and led State actors and intergovernmental bodies to argue that there are principles of international law which can be applied to the preservation and environmental protection of international watercourses in the absence of bilateral and multilateral agreements.²⁵ In turn, the inclusion of certain rules and principles in the ILC's Draft Articles, and subsequently in the Convention, must greatly enhance their status as established or emerging rules of general customary law, particularly in light of the ILC's particular function within the UN system and the cautious approach taken to its role of progressive development of international law, tempered by the constraints imposed by the reality of international State practice.²⁶

²¹ *Ibid.*

²² The text of the statement is reproduced in R. Jennings, 'Need for Environmental Court?', (1992) 22(5/6) *Environmental Policy and Law* 312, at 313, and in (1992) 1 *Review of European Community and International Environmental Law* 240, quoted in M. Fitzmaurice, *supra*, n. 9, at 300.

²³ *UN Legislative Series, Legislative Texts and Treaty Provisions Concerning the Utilization of International Rivers for Other Purposes than Navigation*, UN Doc. ST/LEG/LER.B/12. See C. O. Okidi, 'Preservation and Protection Under the 1991 ILC Draft Articles on the Law of International Watercourses' (1992) 3 *Colorado Journal of International Environmental Law and Policy* 143, at 144.

²⁴ *Legal Problems Relating to the Non-Navigational Uses of International Watercourses*, UN Doc. A/CN.4/274, prepared during the 26th session of the ILC, and reproduced in [1974] 1 *Yearbook of the International Law Commission*. See Okidi, *ibid.*

²⁵ This argument was urged in the recommendations of the 1977 United Nations Water Conference held at Mar del Plata, Argentina. See *Report of the United Nations Water Conference*, UN Doc. E/CONF.70/29, at 115. See further, Okidi, *ibid.*, at 159.

²⁶ See further, J. Brunée and S. J. Toope, 'Environmental Security and Freshwater Resources: A Case for International Ecosystem Law' (1994) 5 *Yearbook of International Environmental Law* 41, at 58

It is also worth noting that in recent years commentators have noted the increasingly significant role that multilateral development banks (MDBs) and other development agencies can play in implementing sustainable development standards and principles.²⁷ Indeed, Handle argues that MDBs are legally obliged, even though their charters may not include explicit environmental obligations or mandates, to act in accordance with international environmental norms possessing the status of customary international law or general principles of law.²⁸ He argues that this obligation may require not merely avoiding lending to projects which may cause environmental harm, but also a more positive obligation ‘to act affirmatively toward realising the goals of sustainable development generally’.²⁹ At any rate, it is apparent that MDBs routinely employ procedures for environmental impact assessment of development proposals and influence the general economic policy of borrower States by providing assistance in the development of national environmental action plans and by other capacity-building measures. Indeed, in early June 2003, ten of the world’s commercial leading banks agreed to abide by the World Bank’s voluntary code of environmental standards when making loans for infrastructure projects, particularly in less developed countries.³⁰ These banks have agreed to follow strict rules for lending to projects such as dams and oil pipelines that threaten the environment and local livelihoods.

A Conclusions re Substantive Rules

It is widely accepted that the obligation to prevent transboundary harm by means of pollution is well established. It receives support from the vast majority of academic commentators,³¹ in

²⁷ See, in particular, G. Handl, *Multilateral Development Banking: Environmental Principles and Concepts Reflecting General International Law and Public Policy*, (Kluwer Law International, London, 2001). See also, B. Richardson, *Environmental Regulation through Financial Organisations*, (Kluwer Law International, The Hague, 2002); A. N. Gowland Gualtieri, ‘The Environmental Accountability of the World Bank to Non-State Actors’, [2001] 72 *British Yearbook of International Law* 213; P. T. B. Kohona, ‘Implementing Global Standards – The Emerging Role of the Non-State Sector’, (2004) 34/6 *Environmental Policy and Law* 260.

²⁸ *Ibid.*, at 13-19.

²⁹ *Ibid.*, at 31.

³⁰ See *The Economist*, 7th June, 2003, at 7. The International Finance Corporation, the private sector lending arm of the World Bank Group, developed the so-called ‘Equator Principles’, (see www.ifc.org/), which are applicable to project financing and have already been cited in the context of a number of disputes, including those concerning the Karahnjukar Power Plant in Iceland and the Baku-Tblisi-Ceyhan (BTC) Pipeline Project. See further, Kohona, *supra*, n. 27.

³¹ See, *inter alia*, P. Birnie and A. Boyle, *International Law and the Environment*, (2nd Ed.) (O.U.P., Oxford, 2002), at 104-105; P. M. Dupuy, *supra*, n. 3, at 63; A. Kiss and D. Shelton, *International Environmental Law* (1991), at 130; P. Sands, *Principles of International Environmental Law* (1995), at 190; E. B. Weiss, S. C. McCaffrey, D. B. Magraw, P. C. Szasz and R. E. Lutz, *International Environmental Law and Policy* (1998), at 317; S. E. Gaines, ‘Taking Responsibility for Transboundary Environmental Effects’ (1991) 14 *Hastings International and Comparative Law Review* 781, at 796-797; D. Hunter, J. Salzman and D. Zaelke, *International Environmental Law and Policy* (1998), at 345; D. Wirth, ‘The Rio Declaration on Environment and Development: Two Steps Forward and One Back, or Vice Versa?’, (1995) 29 *Georgia Law Review* 599, at 620; R. Wolfrum, ‘Purposes and Principles of International Environmental Law’

judicial and arbitral statements,³² in leading declarations and resolutions adopted by the international community,³³ in codifications of international law adopted by intergovernmental agencies³⁴ and learned associations,³⁵ and in a number of normative environmental treaty

(1990) 33 *German Yearbook of International Law*, 308, at 309. For a more sceptical view, see J. H. Knox, 'The Myth and Reality of Transboundary Environmental Impact Assessment' (2002) 96 *American Journal of International Law* 291, at 293; O. Schachter, 'The Emergence of International Environmental Law' (1991) 44 *Journal of International Affairs* 457, at 463; Bodansky, *supra*, n. 5, at 110-111.

³² *Trail Smelter* arbitration, *U.S. v. Canada*, 3 R.I.A.A., (1941), at 1965. Though Bodansky is quick to point out that this decision is merely one of an arbitration panel and that 'after more than fifty years [it] is still the only case in which a state was held internationally responsible for causing transboundary harm', *supra*, n. 5, at 114. *Corfu Channel* case, *U.K. v. Albania*, I.C.J. Rep. (1949) 4, at 22. *Lac Lanoux Arbitration (France v. Spain)*, award of 16 Nov. 1957, 12 R.I.A.A. 281, see (1974) *Yearbook of the International Law Commission*, vol. 2, part 2, 194, at 197, para 1065. *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in Nuclear Tests [New Zealand v. France]*, Order 22 IX 95, ICJ Rep. (1995) 288. *Advisory Opinion on the Legality or Threat of Use of Nuclear Weapons*, (1996) ICJ Rep. 226, at para. 29. *Case Concerning the Gabčíkovo-Nagymaros Project*, I.C.J. Rep. (1997) 7, see further, 'Symposium', (1997) 8 *Yearbook of International Environmental Law*, 3-50; O. McIntyre, 'Environmental Protection of International Rivers', Case Analysis of the ICJ Judgment in the Case concerning the Gabčíkovo-Nagymaros Project (Hungary / Slovakia), (1998) 10 *Journal of Environmental Law*, 79-91.

³³ Principle 21 of the Stockholm Declaration, *Report of the United Nations Conference on the Human Environment*, (Stockholm, June 5-16, 1972), part I, chapter I, reprinted in 11 *ILM* 1416 (1972). 1973 UNGA Resolution on Co-operation in the Field of Environment Concerning Natural Resources Shared by Two or More States, UNGA Res. 3129 (XXVIII), U.N. GAOR Supp. (no. 30A), U.N. Doc. A/9030/Add.1 (1973). 1974 Resolution proclaiming the Charter of Economic Rights and Duties, UNGA Res. 3281, 29 U.N. GAOR Supp. (No. 31), at 50, U.N. Doc. A/9631 (1975), reprinted in 14 *ILM* 251 (1975). 1974 OECD Recommendation on the Control of Eutrophication of Waters, OECD Council Recommendation C(74)220, reprinted in OECD, *OECD and the Environment* (1986), at 44-45. OECD Recommendation on Strategies for Specific Pollutants Control, OECD Council Recommendation C(74)221, reprinted *ibid.* OECD Recommendation on Transfrontier Pollution, OECD Council Recommendation C(74)224, reprinted *ibid.* 1975 Final Act of the Conference on Security and Co-operation in Europe, 14 *ILM* 1292 (1975). Principle 3 of the 1978 UNEP Principles of Conduct in the Field of the Environment Concerning Resources Shared by Two or More States, UNEP/IG/12/2 (1978). Articles 10 and 11 of the 1985 ASEAN Agreement on the Conservation of Nature and Natural Resources, (1985) 15 *Environmental Policy and Law*, at 64. Principle 2 of the Rio Declaration, *Rio Declaration on Environment and Development*, U.N. Doc. A/CONF.151/5/Rev.1 (1992), 31 *ILM* 876.

³⁴ For example, the International Law Commission's 1996 draft articles on the general issue of transboundary harm, *Report of the Working Group on International Liability for Injurious Consequences Arising Out of Acts Not Prohibited by International Law*, in *Report of the International Law Commission* (1996) GAOR A/51/10, ANNEX 1, AT 235. See also, the International Law Commission's 2001 Draft Convention on the Prevention of Transboundary Harm from Hazardous Activities, *Report of the International Law Commission* (2001) GAOR

regimes.³⁶ However, few who support the status of this obligation as a rule of customary international law would argue that it prohibits all transboundary harm.³⁷ It is widely understood that this rule applies subject to a number of considerable limitations, including the fact that the prohibition is normally understood as reflecting an obligation as to performance, based on standards of ‘due diligence’, rather than an absolute obligation as to result.³⁸ Also, despite uncertainty as to the precise normative content of the duty to prevent harm by pollution, it is clear that it is the primary or cardinal rule of customary international environmental law and that has given rise to many, if not all, of the other relevant rules and principles and that it is informed, to a very significant extent, by the requirements of these other rules.

For example, the duty to co-operate, though largely embodying procedural requirements to notify, exchange information, consult and negotiate, is absolutely central to the discharge of the due diligence standards of the obligation to prevent harm. Equally, transboundary environmental impact assessment is central to practical discharge of the duty to notify of planned projects and thus to effective co-operation. Birnie and Boyle have noted that ‘[W]ithout the benefit of an EIA the duty to notify and consult other states in cases of transboundary risk will in many cases be meaningless’.³⁹ Though the 1997 UN Convention does not expressly require the

A/56/10. See further, A. Boyle and D. Freestone (eds.), *Sustainable Development and International Law* (OUP, Oxford, 1999), Ch. 4. See, in particular, the survey of relevant State practice conducted by the ILC, *Survey of State Practice Relevant to International Liability for Injurious Consequences, etc.* (1984) UN Doc. ST/LEG/15.

³⁵ For example, Article 3(1) of the International Law Association’s Montreal Rules of International Law Applicable to Transfrontier Pollution, International Law Association, *Report of the 60th Conference* (1982), at 1-3.

³⁶ Notably, Article 194(2) of the 1982 U.N. Convention on the Law of the Sea, 21 *ILM* (1982) 1261, see also, Article 192(2). 1992 Espoo Convention on the Transboundary Effects of Industrial Accidents, 31 *ILM* (1992) 1333. Article 3 of the Convention on Biological Diversity, 31 *ILM* (1992) 818. Preamble to the Framework Convention on Climate Change, 31 *ILM* (1992) 851.

³⁷ For an example of one of the very few commentators who continue to argue that the prohibition applies to all transboundary harm, see S. E. Gaines, ‘Taking Responsibility for Transboundary Environmental Effects’ (1991) 14 *Hastings International and Comparative Law Review* 781, at 796-797.

³⁸ See further, A. E. Boyle, ‘State Responsibility and International Liability for Injurious Consequences of Acts Not Prohibited by International Law’ (1990) 39 *International and Comparative Law Quarterly* 1, at 14-15; R. Pisillo-Mazzeschi, ‘Forms of International Responsibility for Environmental Harm’, in F. Francioni and T. Scovazzi (eds.), *International Responsibility for Environmental Harm* (1991) 15, at 24; G. Handl, ‘National Uses of Transboundary Air Resources: The International Entitlement Issue Reconsidered’, (1986) 26 *Natural Resources Journal* 405, at 429.

³⁹ *Supra*, n. 31, at 131. The same authors conclude, at 126, that ‘the basic proposition that states must co-operate in avoiding adverse affects on their neighbours through a system of impact assessment, notification, consultation, and negotiation appears generally to be endorsed by the relevant jurisprudence, the declarations of international bodies, and the work of the ILC. Moreover, as the *Lac Lanoux* arbitration and the *Nuclear Tests* cases indicate, it also enjoys some support in state practice.’

conduct of an EIA before the implementation of planned projects or activities which may have a significant effect, Okowa suggests that

[I]t is nevertheless arguable that even in those instances where no specific provision is made, environmental impact assessment may be taken to be implicit in other procedural duties, in particular the duty to notify other States of proposed activities that may entail transboundary harm.⁴⁰

Transboundary EIA has also been linked to the general principle of non-discrimination,⁴¹ as have dispute settlement procedures which give priority to private recourse by adversely affected individuals to domestic courts and remedies in the avoidance and resolution of disputes over international watercourses. Such procedures can also be seen to give effect to the polluter pays principle.

In turn, the precautionary principle can play a vital role in identifying when a transboundary EIA would be necessary and then in comprehensively setting out all the environmental risks inherent in a planned project. Indeed, it is widely accepted that the use of anticipatory EIA procedures is one of the key means of giving practical effect to the more obscure precautionary principle.⁴² Also, outside of formal EIA procedures, the precautionary principle has a role to play in identifying general standards of due diligence for the purposes of the duty to prevent transboundary harm. For example, it is clear that duty of prevention would normally extend to a significant risk of transboundary environmental interference causing significant harm, thereby requiring precautionary risk assessment.⁴³ Obligations, of one form or another, relating to the application of clean production methods or the setting of precautionary environmental standards, techniques or practices are almost always associated with the application of the precautionary principle in international instruments.⁴⁴ In relation to the impact of the

⁴⁰ P. N. Okowa, 'Procedural Obligations in International Environmental Agreements' (1996) 67 *British Yearbook of International Law* 275, at 279.

⁴¹ J. H. Knox, *supra*, n. 31, at 293. Knox similarly concludes that 'Principle 21 does seem logically to require ... transboundary environmental impact assessment. Otherwise, the substantive prohibition on transboundary harm would be largely meaningless, except perhaps as a basis for *post hoc* determination of compensation owed to the affected state', *ibid.*, 295-296.

⁴² In his separate opinion appended to the *Gabcikovo-Nagymaros* case, *supra*, n. 32, Judge Weeramantry expressly describes environmental impact assessment as 'a specific application of the larger general principle of caution', at 21. See also, *Request for an Examination of the Situation*, *supra*, n. 32, Dissenting Opinion, Palmer, at 412, Dissenting Opinion, Weeramantry, at 345.

⁴³ See, for example, Experts Group on Environmental Law of the World Commission on Environment and Development, *Environmental Protection and Sustainable Development: Legal Principles and Recommendations*, (1987) (Article 10), at 75. Reprinted in J. Lammers and R. D. Munro (Eds.), *Environmental Protection and Sustainable Development: Legal Principles and Recommendations Adopted by the Experts Group on Environmental Law of the World Commission on Environment and Development* (London, 1986).

⁴⁴ For example, 1991 Bamako Convention, Article 4(3)(f); 1992 OSPAR Convention, Article 2(3)(b)(ii) and Appendix I; Baltic Convention, Article 23(3) and Annex II; 1979 Long-Range Transboundary Air Pollution Convention, Article 6, 1988 Nitrogen Oxides Protocol, Article 2(2)(a) and 1991 Volatile Organic Compounds Protocol, Article 3(3); 1991 UNGA Res. 46/215

precautionary principle on other norms of international environmental law, Birnie and Boyle note that ‘the ILC special rapporteur is right to suggest that the precautionary principle is already included in the principles of prevention and prior authorization, and in environmental impact assessment, “and could not be divorced therefrom”’.⁴⁵ Another increasingly important application of the precautionary principle is that of the ecosystems approach to natural resources management which, though by no means required under customary international law, is employed with increasing frequency in watercourse conventions. The precautionary principle has a pervasive relevance in international environmental law and it would appear, for example, that a precautionary approach is to be taken to the task of identifying ‘a grave and imminent peril’ for the purposes of establishing the existence of a state of ‘necessity’ under draft Article 25 of the International Law Commission’s 1996 draft Articles on Responsibility of States for Internationally Wrongful Acts.⁴⁶ The Special Rapporteur’s second report suggests that a measure of scientific uncertainty about the prospect of damage should not disqualify a State from invoking necessity.⁴⁷

However, of particular significance to the recent and future development of norms and principles of international environmental law is the universally accepted notion of sustainable development. It has been described as ‘an umbrella notion encompassing a range of more specific principles that give it effect’,⁴⁸ including EIA, access to information and participation in environmental decision-making, the precautionary principle,⁴⁹ inter-generational equity, intra-generational equity and the ecosystem approach. More importantly, it facilitates the reconciliation of international law on protection of the environment and international law on the utilisation of shared resources by permitting account to be taken of both environmental and non-environmental considerations, including social, economic and developmental goals.

Indeed, leading commentators suggest that the reference to States’ ‘own environmental and developmental policies’ included in Principle 2 of the Rio Declaration,⁵⁰ which effectively restates the duty to prevent transboundary environmental harm as earlier articulated in Principle 21 of the Stockholm Declaration, does no more than ‘confirm an existing and necessary reconciliation with the principle of sustainable development and the sovereignty of states over their own natural resources’.⁵¹ The duty of prevention has also been linked implicitly to the

on Large-Scale Pelagic Drift-Net Fishing and its Impact on the Living Marine Resources of the Worlds Oceans and Seas; 1995 Fish Stocks Agreement, Article 5(e).

⁴⁵ *Supra*, n. 31, at 120, citing *Report of the International Law Commission* (2000) GAOR A/55/10, para. 716.

⁴⁶ *Supra*, n. 34, at 235. Similarly, in the *Gabcikovo-Nagymaros* case, *supra*, n. 32, the ICJ strongly suggests that environmental concerns are likely to be relevant in determining the essential interests of States for the purposes of invoking a state of ‘necessity’.

⁴⁷ J. Crawford, *Second Report on State Responsibility*, UN Doc. A/CN.4/498/Add.2 (1999), para. 289, at 31.

⁴⁸ Brunnée and Toope, *supra*, n. 26, at 66.

⁴⁹ For example, Trouwborst suggests that the endorsement of the goal of sustainable development in Article 5 of the 1997 Convention automatically implies a recognition of the precautionary principle, as the latter is so firmly linked to the former. See, A. Trouwborst, *Evolution and Status of the Precautionary Principle in International Law* (Aspen Publishers, 2003), at 111.

⁵⁰ *Rio Declaration on Environment and Development*, UN Doc. A/CONF.151/5/Rev.1 (1992) 31 *ILM* 876, (emphasis added).

⁵¹ Birnie and Boyle, *supra*, n. 31, at 110.

notion of sustainable development by the proposal, contained in the International Law Commission's 2001 draft Convention on the Prevention of Transboundary Harm from Hazardous Activities,⁵² that States potentially in dispute over the prevention of transboundary harm must negotiate an equitable balancing of interests in accordance with a range of factors listed in the draft, rather as watercourse States must establish an equitable regime for the utilisation of shared freshwater resources under the principle of equitable utilisation. In the specific context of shared freshwater resources, the principle of equitable and reasonable utilisation, the predominant normative concept of international freshwater law, approximates with and 'operationalises' the notion of sustainable development.⁵³ The principle of equitable utilisation as articulated in Article 5 of the 1997 Convention requires watercourse States to achieve an equitable balancing of interests in accordance with a non-exhaustive list of factors, including environmental and non-environmental considerations, set out in Article 6. Therefore, in relation to shared freshwater resources, sustainable development facilitates the thorough consideration of the various aspects of environmental protection in the determination of an equitable regime for the utilisation of the resource. In other words, it involves the use of the waters on the basis of a regime of equitable utilisation which takes full account of the environmental protection of the shared resource. Such a regime might more appropriately be called one of 'equitable and sustainable utilisation'.

In relation to intergenerational equity, a principle at the normative core of the notion of sustainable development, Brown Weiss identifies five key duties of resource use and corresponding rights,⁵⁴ which Redgwell points out

bear a strong resemblance to existing principles of international environmental law. It is not surprising then that examples of each "duty of use" may be found in existing treaties in the environmental law field, as well as in the emerging principles of customary law.⁵⁵

Clearly, the precautionary principle has a role to play in achieving a balance of interests between present and future generations. According to Redgwell, the principle generally provides that 'where there is a threat to the global environment, yet scientific uncertainties persist, steps can and should be taken that will benefit the present generation in any event and mitigate

⁵² *Supra*, n. 34.

⁵³ See, P. K. Wouters and A. S. Rieu-Clarke, 'The Role of International Water Law in Promoting Sustainable Development' [2001] 12 *Water Law*, 281, at 283; M. Kroes, 'The Protection of International Watercourses as Sources of Fresh Water in the Interest of Future Generations', in E. H. P. Brans, E. J. de Haan, J. Rinzema and A. Nollkaemper (eds.), *The Scarcity of Water: Emerging legal and Policy Responses* (Kluwer Law International, The Hague, 1997), at 83; McIntyre, *supra*, n.32, at 88.

⁵⁴ E. Brown-Weiss, *In Fairness to Future Generations* (United Nations University Press, Tokyo / Transnational, New York, 1989), at 50. Namely:

- to conserve resources;
- to ensure equitable use;
- to avoid adverse impacts;
- to prevent disasters, minimise damage and provide emergency assistance;
- to compensate for environmental harm.

⁵⁵ C. Redgwell, *Intergenerational Trusts and Environmental Protection* (University of Manchester Press, 1999), at 81.

suspected adverse impacts upon future generations'.⁵⁶ Similarly, it is clear that the principle of common but differentiated responsibility, another core component of sustainable development, has a role to play in identifying the due diligence standards which might be expected of particular States under the duty to prevent transboundary harm. Indeed, the general obligation to exercise due diligence in preventing or mitigating adverse transboundary effects has, for many years, taken account of the differing capabilities of States. For example, Article 2 of the 1972 London Dumping Convention⁵⁷ requires the parties to take effective measures 'according to their scientific, technical and economic capabilities ...'. Common but differentiated responsibility may also impact to modify application of the precautionary principle, as is acknowledged in Principle 15 of the Rio Declaration.⁵⁸

Therefore, the position in relation to the normative status and substantive content of both more established and emerging rules and principles of international environmental law, and their application to shared international freshwater resources, is far from simple. It is clear, however, that customary and conventional rules and principles are closely interrelated. While the consistent articulation of certain rules in conventional regimes lends support to the case that those rules have achieved the status of customary international law, established and even emerging customary rules and principles significantly influence the application of conventional regimes. Indeed, having regard to the work of the International Law Commission, not to mention the many other intergovernmental agencies and learned associations involved in the formulation of international environmental law and policy, it is possible to argue that most generally applicable conventional and declaratory instruments relating to the environment consist of little more than codifications of existing custom or established State practice. Of course, once particular rules or principles have been included in such codifying instruments, their customary status is likely to be greatly enhanced. Moreover, each of the rules or principles of international environmental law identified above, whether customary or conventional in origin, are themselves closely interrelated, having some significance for the normative status or practical application of one or more of the others.

In relation to several areas of international law for which there is strong support for a legal obligation to negotiate an equitable solution, such as the law of high seas fisheries⁵⁹ and the law relating to maritime boundary delimitation,⁶⁰ it is reasonable for commentators to question whether transboundary environmental relations are more appropriately based on equitable balancing than on legal rules with greater certainty and predictability.⁶¹ However, the principle of equitable utilisation has long been the uncontested cornerstone of the law of international watercourses and it is appropriate that it is within the framework of this principle that factors

⁵⁶ *Ibid.*, at 139.

⁵⁷ Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 11 *ILM* 1294 (1972). In force 30 August 1975.

⁵⁸ *Supra*, n. 33. Principle 15 provides that

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

⁵⁹ *Icelandic Fisheries Cases*, *ICJ Rep.* (1974) 3 and 175.

⁶⁰ *North Sea Continental Shelf Case*, *ICJ Rep.* (1969) 3.

⁶¹ Birnie and Boyle, *supra*, n. 31, at 129-130.

pertaining to environmental protection are considered. Of course, States remain free to enter into whatever binding conventional environmental arrangements that they deem necessary.

It remains, therefore, to consider broadly the relevant weight to be given to environmental factors in the course of such a balancing of interests and the processes by which they can be incorporated into an equitable regime for the utilisation of shared freshwater resources. In this regard, it is suggested that the growing corpus of broadly supported environmental rules and principles alluded to above emphasises the likely significance of environmental factors in this process and provides detailed mechanisms and procedures by means of which environmental considerations can be taken on board and environmental damage can thus be prevented or mitigated. Indeed, it can be argued that the extensive elaboration and detailed articulation of environmental rules and principles in recent years, both of substantive elements such as the due diligence standards required and of procedural obligations such as the duty to notify, significantly enhances the weight to be accorded to environmental considerations in the balancing of factors involved in the determination of an equitable regime for the utilisation of an international watercourse.

3 Procedural Rules of International Environmental Law

If one accepts that the applicable customary rules for the use of shared freshwater resources require that significant harm to other watercourse States should be avoided and, ultimately, that such use must be equitable and reasonable, it follows that a State will need to know of the current or proposed uses of a neighbouring State in order to ascertain whether any use will cause significant harm within its territory or to the shared water resource or whether such use will be equitable and reasonable. In addition to a notification procedure, legal machinery is required by means of which watercourse States may consult and negotiate in respect of proposed works or utilisation of shared waters. Okowa points out the proliferation, since the 1972 UN Conference on the Human Environment,⁶² 'of treaty instruments requiring States not so much to prevent environmental harm as to observe a number of discrete procedures before permitting the conduct of activities which may cause such harm'.⁶³ She further observes that

[B]ecause these obligations are designed to reconcile the interests of States proposing the conduct of activities and those likely to be affected, one recurrent theme in all these obligations is an attempt to ensure that, while some protection is given to putative victims, the sovereignty of the source State is also not unduly impeded in the process.⁶⁴

Generally, procedural obligations provide a framework for the early and amicable resolution of environmental disputes by ensuring that interested parties are adequately informed

⁶² *Report of the UN Conference on the Human Environment*, UN Doc. A/CONF.48/14; (1972) 11 *ILM* 1416.

⁶³ *Supra*, n. 40, at 275. See generally, F. L. Kirgis, *Prior Consultation in International Law* (Charlottesville, 1982); P. Sands, *Principles of International Law* (Manchester University Press, 1994), chapter 16, at 596; A. Boyle, 'The Principle of Co-operation: The Environment', in V. Lowe and C. Warbrick, *The United Nations and the Principle of International Law* (London, 1994), at 120.

⁶⁴ *Ibid.*, at 276.

of proposed projects and their potential environmental implications, by providing a form of procedural due process for the participation of interested parties, including, where appropriate, the citizens of the State of origin and the citizens of potentially affected States,⁶⁵ and by providing an opportunity for compromise to be reached, involving, for example, alteration of the original proposal or the inclusion of remedial measures to mitigate any likely adverse environmental effects.⁶⁶ Though many commentators would, quite correctly, count the device of transboundary Environmental Impact Assessment (EIA) among such legal procedures,⁶⁷ the author takes the view that it is so intrinsically linked to the discharge and implementation of several core substantive obligations and principles of international environmental law, including the obligation to prevent transboundary harm and the precautionary principle, that it is more apt to examine EIA alongside such substantive rules. However, this is not to deny the central role of EIA in ensuring that States likely to be affected by an activity are appropriately informed of its potential impacts and in facilitating meaningful consultation and negotiation between proposing and opposing States.

The existence of a general customary obligation on States to co-operate in respect the development and utilisation of international watercourses was suggested in the *Lac Lanoux Arbitration* where it was stated that:

States are today perfectly conscious of the importance of the conflicting interests brought into play by the industrial use of international rivers, and of the necessity to reconcile them by mutual concessions. The only way to arrive at such compromises of interests is to conclude agreements on an increasingly comprehensive basis ... There would thus appear to be an obligation to accept in good faith all communications and contacts which could, by a broad comparison of interests and by reciprocal good will, provide States with the best conditions for concluding agreements ...⁶⁸

The International Court of Justice emphasised the necessity of co-operation among watercourse States in the recent *Gabčíkovo-Nagymaros* case stating, for example, that '[O]nly by international cooperation could action be taken to alleviate ... problems [of navigation, flood control, and environmental protection]'.⁶⁹ However, members of the International Law

⁶⁵ In the context of transboundary water resources, see, for example, Article 16 of the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, (1992) 31 *ILM* 1312, which requires that all 'Riparian Parties' make available to the public the following information:

Water-quality objectives;

Permits issued and conditions required to be met;

Results of water and effluent sampling carried out for the purposes of monitoring and assessment, as well as results of checking compliance with the water quality objectives or the permit conditions.

⁶⁶ See further, Okowa, *supra*, n. 40, at 277-278.

⁶⁷ Including Okowa, *ibid.*

⁶⁸ *Supra*, n. 32, at 308. See C. B. Bourne, 'Procedure in the Development of International Drainage Basins: The Duty to Consult and to Negotiate', (1972) *Annuaire Canadien de Droit International* 219.

⁶⁹ *Supra*, n. 38, at 20.

Commission, in the course of their discussions on the subject of international watercourses, differed on whether the need for States to co-operate was a mere aspiration or a binding legal duty. For example, Calero Rodriguez argued that ‘cooperation was a goal, a guideline for conduct, but not a strict legal obligation which, if violated, would entail international responsibility’.⁷⁰ On the other hand, Graefrath insisted that ‘cooperation was not simply a lofty principle, but a legal duty’.⁷¹ However, despite disagreement over the precise legal status of the duty to co-operate *per se*, most agreed that it was an ‘umbrella term, embracing a complex of more specific obligations which, by and large, do reflect customary international law’.⁷² For example, Reuter concluded that ‘[T]he obligation to cooperate was a kind of label for an entire range of obligations’.⁷³ Sands takes a similar view and explains that the obligation to cooperate has ‘been translated into more specific commitments’, including

[R]ules on environmental impact assessment ...; rules ensuring that neighbouring states receive necessary information (requiring information exchange, consultation and notification) ...; the provision of emergency information ...; and transboundary enforcement of environmental standards.⁷⁴

However, despite the misgivings of some of its members about the precise legal nature and status of the obligation to co-operate, the International Law Commission eventually decided to include an express reference to this duty in its 1994 Draft Articles.⁷⁵ This reference formed the basis of Article 8 of the 1997 UN Watercourses Convention,⁷⁶ which recognises the practical importance of the duty to co-operate for the attainment of the twin goals of optimal utilisation and adequate protection of an international watercourse.⁷⁷ Article 8 also stresses the role of joint mechanisms or commissions in facilitating such co-operation.⁷⁸ The Convention includes further detailed requirements which give practical effect to the rather vague obligation to co-operate, including the obligations to notify, consult and negotiate, exchange information, and participate in dispute settlement procedures.

The general principle requiring notice and consideration of the transboundary environmental impact of national activities is based on the informed self-interest of nations and

⁷⁰ [1987] *Yearbook of the International Law Commission*, vol. 1, at 71. See S. McCaffrey, *The Law of International Watercourses* (OUP, Oxford, 2001), at 401.

⁷¹ *Ibid.*, at 85.

⁷² McCaffrey, *supra*, n. 70, at 401.

⁷³ [1987] *Yearbook of the International Law Commission*, vol. 1, at 75.

⁷⁴ P. Sands, *supra*, n. 63, at 197-198.

⁷⁵ *Report of the International Law Commission* (1994), at 105.

⁷⁶ *Supra*, n. 2.

⁷⁷ Article 8(1) provides

‘Watercourse States shall cooperate on the basis of sovereign equality, territorial integrity, mutual benefit and good faith in order to attain optimal utilization and adequate protection of an international watercourse’.

⁷⁸ Article 8(2) provides

‘In determining the manner of such cooperation, watercourse States may consider the establishment of joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions’.

has long received broad international support. For example, Principle 8 of the Draft Declaration of the Preparatory Committee for the 1972 United Nations Conference on the Human Environment provided that ‘a State having reason to believe that the activities of another State may cause damage to its environment or to the environment of areas beyond the limits of national jurisdiction may request international consultations concerning the envisaged activities’. Principle 20 of the Draft Declaration further required that

Relevant information must be supplied by States on activities or developments within their jurisdiction or under their control whenever they believe, or have reason to believe, that such information is needed to avoid the risk of significant adverse effects on the environment in areas beyond their national jurisdiction.

Though Principle 20 was not adopted at Stockholm, due principally to Brazilian opposition,⁷⁹ the concept received broad support. Indeed, the United Nations General Assembly subsequently adopted, by a vote of 115 to 0 with 10 abstentions, a Resolution specifically addressing the issue of notice of activities having potential for transboundary environmental harm in which the General Assembly resolved that it

Recognizes that cooperation between States in the field of the environment ... will be effectively achieved if official and public knowledge is provided of the technical data relating to the work to be carried out by States within their national jurisdiction with a view to avoiding significant harm that may occur in the human environment of the adjacent area’ and that ‘The technical data referred to ... will be given and received in the best spirit of cooperation and neighbourliness ...’⁸⁰

In relation to international water resources in particular, United States practice in this area provides an early and highly developed example of notice and consultation provisions applying in relation to water pollution that may have international dimensions. The Federal Water Pollution Act of 1956 required that where there was

reason to believe that any pollution (of interstate or navigable waters) which endangers the health or welfare of persons in a foreign country is occurring ... The Secretary (of the Interior), through the Secretary of State, shall invite the foreign country which may be adversely affected by the pollution to attend and participate in the conference, and the representative of such country shall, for the purposes of the conference, have all the rights of a State water pollution control agency.⁸¹

⁷⁹ Apparently, Brazilian opposition was due to the fact that Brazil was planning to build three high dams on the Parana River which is an important source of water for downstream Argentina. See, A. E. Utton, ‘International Environmental Law and Consultation Mechanisms’ (1973) 12 *Columbia Journal of Transnational Law*, 56, at 71-72.

⁸⁰ UNGA Resolution 2995, Dec. 15, 1972, reprinted in (1973) 68 *Department of State Bulletin*, at 56-57.

⁸¹ Section 466g(d)(2). Cited in Utton, *supra*, n. 79, at 65-66.

Indeed, Okowa points out that, prior to the 1972 Stockholm process, the inclusion of such procedural obligations is especially common in early treaties concerned with regulating the conduct of international watercourses.⁸² Describing the significance of procedural rules in relation to international water law in 1977, Schachter succinctly explained the reason for this significance and the nature of the relationship between procedural obligations and the malleable cardinal water law principle of equitable utilisation:

It is reasonable ... that procedural requirements should be regarded as essential to the equitable sharing of water resources. They have particular importance because of the breadth and flexibility of the formulae for equitable use and appropriation. In the absence of hard and precise rules for allocation, there is a relatively greater need for specifying requirements for advance notice, consultation, and decision procedures. Such requirements are, in fact, commonly found in agreements by neighbouring States concerning common lakes and rivers.⁸³

More recently, the United Nations Economic Commission for Europe (ECE) 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes imposes upon parties a range of procedural obligations relating to, *inter alia*, the exchange of information on existing and planned uses of shared waters, participation in consultations and the provision of warnings.⁸⁴ Similarly, the 1997 UN Watercourses Convention contains detailed procedural provisions. In 1973, Utton could conclude that

a general principle of limited territorial sovereignty or neighbourliness already requires nations to consider the environmental impact of their activities on other nations' but that 'the institutional machinery to implement such consideration is wholly inadequate. The elaboration of procedures and the development of appropriate fora for the consideration of activities that have the potential for environmental harm is yet to be accomplished.⁸⁵

⁸² *Supra*, n. 63, at 275. Examples cited include, the General Convention of 14 December 1931 between Romania and Yugoslavia concerning the Hydraulic System, 135 *LNTS* 31; the Agreement of 10 April 1922 for the Settlement of Questions Relating to Watercourses and Dykes on the German-Danish Frontier, 10 *LNTS* 201; the Treaty of 24 February 1950 between Hungary and the USSR concerning the Regime of Soviet-Hungarian State Frontier, UN *Legislative Texts and Treaty Provisions concerning the Utilization of International Rivers for other Purposes than Navigation* (hereinafter *Legislative Texts*), No. 226, at 823; the Agreement of 8 July 1948 between Poland and the USSR concerning the Regime of the Polish-Soviet State Frontier, 37 *UNTS* 25; the Treaty of 11 January 1909 between Great Britain and the United States of America relating to Boundary Waters and Questions concerning the Boundary between Canada and the United States, *Legislative Texts*, No. 79, at 260; the Convention of 11 May 1929 between Norway and Sweden on Certain Questions relating to the Law on Watercourses, 120 *LNTS* 263.

⁸³ O. Schachter, *Sharing the World's Resources* (Columbia University Press, New York, 1977), at 69, cited in McCaffrey, *supra*, n. 70, at 398.

⁸⁴ *Supra*, n. 65. By the end of 2000, the Convention had 26 Signatories and 32 Parties, (see <http://untreaty.un.org/> ...). See generally, A. Nollkaemper, *The Legal Regime for Transboundary Water Pollution: Between Discretion and Constraint* (Dordrecht, 1993).

⁸⁵ Utton, *supra*, n. 79, at 59.

This view was shared by most leading commentators.⁸⁶ In the context of shared freshwater resources, however, Bourne had argued that the requirement of reasonableness inherent in the Helsinki Rules requires prior notice of uses of international watercourses that might have significant environmental impacts on other watercourse States and involvement of such States at the planning stage rather than after the damage has occurred.⁸⁷ Furthermore, he usefully elaborated detailed recommendations on procedural rules for involving potentially affected watercourse States which, having regard to the procedural rules eventually adopted under the 1997 Convention and to recent developments in customary international law, now appear prophetic.⁸⁸

A Conclusions re Procedural Rules

It is worth noting that the International Law Commission's 2001 draft Convention on the Prevention of Transboundary Harm from Hazardous Activities,⁸⁹ in addition to confirming the general obligation to prevent transboundary harm, codifies existing related international obligations relating to environmental impact assessment, notification, consultation,⁹⁰ monitoring and diligent control of activities likely to cause such harm. These related procedural obligations operate to discharge the more general duty of States to co-operate in the reasonable and equitable utilisation of international watercourses. At least as regards the duty to provide neighbouring States with prior notice of plans to exploit a shared natural resource, commentators agree that it is an obligatory requirement under customary international law⁹¹ or 'as a principle generally recognised in international environmental law'.⁹² Several States have sought to rely on the duty to provide prior notification in the course of international disputes.⁹³ The obligation certainly

⁸⁶ See, for example, A. Goldie, in L. Hargrove (Ed.), *Law, Institutions and the Global Environment*, at 129 and A. Lester, 'River Pollution in International Law' (1963) 57 *American Journal of International Law* 828, at 833.

⁸⁷ C. B. Bourne, 'International Law and Pollution of International Rivers and Lakes' (1971) *University of British Columbia Law Review*, 121.

⁸⁸ *Ibid.*, at 122.

⁸⁹ *Supra*, n. 34.

⁹⁰ In the light of arbitral and judicial guidance, Nollkaemper has defined the duty to consult to mean that the State in question 'has to engage in an exchange of views with potentially affected states so as to make the consideration of their interests a component in its final determination', *supra*, n. 84, at 165.

⁹¹ See, for example, J. de Arechaga, 'International Law in the Past Third of a Century', (1978) 1 *Recueil des Cours de l'Academie de Droit International*, at 198; F. L. Kirgis, *supra*, n. 63, at 86, 128; *Management of International Water Resources: Institutional and Legal Aspects*, UN Doc. ST/ESA/5 (1975), at 50-51.

⁹² See, J. G. Lammers, 'The Present State of Research Carried Out by the English-Speaking Section of the Centre for Studies and Research', in *La pollution transfrontiere et le droit international*, (Academie de Droit International de La Haye – Centre d'etude et de recherche de droit international et des relations internationales, 1985), at 109-110.

⁹³ See, for example, the *Lac Lanoux* arbitration, *supra*, n. 32; the *Itaipú Dam* dispute, see McCaffrey, *supra*, n. 70, at 265-267; and Sudan's claim that Egypt had failed to notify it of the technical details of the Aswan High Dam, see McCaffrey, *ibid.*, at 233 *et seq.*

receives broad support in important recent conventional⁹⁴ and declaratory instruments.⁹⁵ In addition, Okowa asserts that, even where it is not expressly provided for, the obligation to notify ‘must be taken as implicit in any requirement to conduct environmental impact assessment’, as such assessments are required with a view to protecting the interests of third States.⁹⁶ There is potential for uncertainty as to which States are likely to be affected by a particular activity and consequently entitled to notification, or as to which types of activities and forms of injuries the State or origin must notify to the potentially affected States, though both the precautionary principle and the more inclusive ecosystems approach might function to address these questions. Article 12 of the 1997 UN Convention acknowledges the link between effective notification and transboundary EIA by expressly requiring that the results of any EIA accompany the notification. The duty to notify may be facilitated by institutional machinery and the widely adopted 1992 ECE Convention requires Parties to enter into bilateral or multilateral agreements or other arrangements which provide for the establishment of joint bodies to have responsibility for, *inter alia*, ‘the exchange of information on existing and planned uses of water and related installations that are likely to cause transboundary impact’⁹⁷ and to ‘participate in the implementation of environmental impact assessments relating to transboundary waters, in accordance with appropriate international regulations’.⁹⁸ In a rare example of a treaty instrument taking a broader, more ecosystems oriented, approach to international co-operation, Article 9 also provides for the involvement of non-riparian coastal States ‘directly and significantly affected by transboundary impact ... in the activities of multilateral joint bodies established by Parties riparian to such transboundary waters.’⁹⁹ The joint bodies which Parties are required to establish shall have among their tasks ‘[T]o participate in the implementation of environmental impact assessments relating to transboundary waters, in accordance with appropriate international regulations’.¹⁰⁰

Article 13 of the 1997 UN Convention provides that, unless otherwise agreed, the notifying State shall allow notified States a period of six months within which to study and evaluate the measures and to communicate their findings. However, this period must be extended for a further six months at the request of a notified State ‘for which the evaluation of the planned measures poses special difficulty’ and this provision may be a reference to the emerging international environmental law principle of ‘common but differentiated responsibility’.

Other related obligations under the duty to co-operate include the duty to negotiate in good faith,¹⁰¹ the duty to warn and duties relating to more general and regular exchange of

⁹⁴ See, for example, Articles 3 and 10 of the 1992 Convention on the Transboundary Effects of Industrial Accidents, *supra*, n. 36.

⁹⁵ See, for example, Recommendation 51(b)(i) of the 1972 Stockholm Declaration, *supra*, n. 33, which provided that

‘when major water resource activities are contemplated that may have a significant environmental effect on another country, the other country should be notified well in advance of the activity envisaged.’

⁹⁶ *Supra*, n. 63, at 289. However, the ECE Convention on Environmental Impact Assessment, (1991) 30 *ILM* 802, expressly includes the obligation to notify under Article 3.

⁹⁷ *Supra*, n. 65, Article 9(2)(h).

⁹⁸ Article 9(2)(j).

⁹⁹ Article 9(3) and (4).

¹⁰⁰ Article 9(2)(j).

¹⁰¹ Negotiations would not be so conducted where one party terminates the negotiations without justification, imposes abnormal delays or time limits, fails to adhere to the agreed procedure, or

information. According to Okowa, '[A]lmost all the treaty instruments on environmental protection provide for the exchange of information on a regular basis',¹⁰² and McCaffrey perceives this obligation as 'a necessary adjunct to, or perhaps even an integral part of, the obligations of equitable utilization and prevention of significant harm'.¹⁰³ Similarly, the Experts Group on Environmental Law of the World Commission on Environment and Development linked the obligation closely to the principle of equitable utilisation, stating that 'the duty to provide information may in principle pertain to many factors ... which may have to be taken into account in order to arrive at a reasonable and equitable use of a transboundary natural resource.'¹⁰⁴ Though determination of breach of such an obligation is bound to be problematic in the absence of uniform principles or rules regulating the collection or dissemination of information, Okowa speculates that 'should damage occur, failure to supply such information may be taken as evidence that the State on whom the duty is incumbent has not exercised due diligence over activities under its jurisdiction and control.'¹⁰⁵ This duty is most effectively achieved through the establishment of permanent river basin institutions to facilitate common management of the shared water resources. Indeed, Dupuy concludes that such regular exchange of information by means of such permanent regional institutions 'seems to be the most appropriate way of establishing a reasonable and equitable use of shared natural resources, *as is required by international law*.'¹⁰⁶

Procedural obligations appear to play a particularly significant role in relation to regimes for the protection of water or other shared natural resources. It is therefore widely accepted that, despite the lack of a similar customary requirement in relation to environmental obligations generally, customary law in the context of shared water resources imposes a binding obligation to notify other States, supply information and enter into consultations.¹⁰⁷ Early support for the existence of these customary obligations is to be found in a long line of European¹⁰⁸ and other¹⁰⁹

systematically refuses to consider the proposals or the interests of the other party. See *Lac Lanoux Arbitration, supra*, n. 32, at 307.

¹⁰² *Supra*, n. 40, at 300.

¹⁰³ *Supra*, n. 72, at 411. He goes on to explain that

'without data and information from co-riparian states concerning the condition of the watercourse, it will be very difficult, if not impossible, for a state not only to regulate uses and provide protection (*e.g.* against floods and pollution) within its territory, but also to ensure that its utilization is equitable and reasonable vis-à-vis other states sharing the watercourse'.

¹⁰⁴ *Supra*, n. 43, at 95.

¹⁰⁵ *Supra*, 40, at 300.

¹⁰⁶ *Supra*, n. 3, at 73.

¹⁰⁷ See, for example, J. Bruhacs, *The Law of Non-Navigational Uses of International Watercourses* (Dordrecht, 1993), at 176-177.

¹⁰⁸ For example, the 1921 Barcelona Convention on the Regime of Navigable Waterways of International Concern, 7 *LNTS* 35; the 1948 Convention regarding the Regime of Navigation on the Danube, 33 *UNTS* 196; the 1963 Berne Convention on the International Commission for the Protection of the Rhine, reprinted in *Tractatenblad Van Het Koninkrijk Der Nederlanden*; the 1964 Agreement Concerning the Use of Waters in Frontier Waters concluded between Poland and the USSR, 552 *UNTS* 175; Article 9 of the 1974 Agreement concerning Co-operation in Water Economy Questions in Frontier Rivers concluded between the German Democratic Republic and Czechoslovakia, reprinted in *Sozialistische Landeskultur Umweltschutz, Textausgabe Ausgewählter Rechtsvorschriften, Staatsverslag Der Deutsch Dem. Rep.* 375 (1978);

treaties and State practice¹¹⁰ on the utilisation of international watercourses and Okowa points out that these duties are generally complied with even in the absence of applicable treaty provisions.¹¹¹ Similarly, in a comprehensive study of practice surrounding the duty to warn in customary international law, Woodliffe concludes that it is more developed in situations that involve the utilisation of a shared natural resource (SNR), such as an international watercourse system.¹¹²

There can be little doubt that the procedural rules set down in the 1997 Convention codify and formalise many existing rules of customary international law. In so doing the Convention further strengthens and legitimises such rules. In summarising the procedural rules as set down in Part II of the Draft Articles, Bourne concludes that

For the most part, the basic requirements of the exchange of information, notice, consultation, and negotiation now form part of customary international law. In fleshing out these basic rules, such as providing for a six-month time limit, the ILC has engaged in beneficial progressive development of the law. ... the new provisions merely elaborate the existing law and will make it more effective. Insofar as these provisions constitute new law, they should have little difficulty in gaining ready acceptance by the international community.¹¹³

Having particular regard to the law of international watercourses, however, the absolutely central role of procedural rules in facilitating effective application of the overarching principle of equitable utilisation, not to mention the subsidiary rule on the prohibition of significant transboundary harm, lends such procedural rules, and their elaboration through the 1997 Convention, added significance. As Special Rapporteur McCaffrey concluded in his Third Report

the 1976 Convention on the Protection of the Rhine against Chemical Pollution, (1977) 16 *ILM* 242. For an extensive survey, see Kirgis, *supra*, n. 63. chapter 2.

¹⁰⁹ For example, Article IX of the 1909 Boundary Waters Treaty, *supra*, n. 82; the 1959 Nile Waters Agreement; Article 6 of the 1960 Indus Waters Treaty, 419 *UNTS* 125; the 1964 Agreement concerning the Niger Commission, 587 *UNTS* 19; the 1971 Act of Santiago concerning Hydrologic Basins concluded between Argentina and Chile; the 1973 US-Mexico Agreement on the Permanent and Definitive Solution to the Problem of the Salinity of the Colorado River, (1973) 12 *ILM* 1105; Article 9 of the 1978 US-Canada Great Lakes Water Quality Agreement, 30 *UST* 1383.

¹¹⁰ For a comprehensive survey of State practice in this area, see J. G. Lammers, *Pollution of International Watercourses* (Dordrecht, 1984), at 165, *et seq.*

¹¹¹ *Supra*, n. 40, at 319.

¹¹² J. Woodliffe, 'Tackling Transboundary Environmental Hazards in Cases of Emergency: The Emerging Legal Framework' in R. White and B. Smythe (Eds.), *Current Issues in European and International Law* (London, Sweet & Maxwell, 1990), 105, at 114-5. He explains, at 115, that 'Because utilisation of a SNR heightens the risk of transfrontier environmental harm, there is a broad measure of juristic support for the existence of a duty to warn states of any emergency situation which might cause sudden harmful effects to their environment.'

¹¹³ C. B. Bourne, 'The International Law Commission's Draft Articles on the Law of International Watercourses: Principles and Planned Measures' (1992) 3 *Colorado Journal of International Environmental Law and Policy*, 65, at 72.

Thus the doctrine of equitable utilization does not exist in isolation. It is part of a normative structure that includes procedural requirements necessary to its implementation: the substantive and procedural principles form an integrated whole.¹¹⁴

4 Conclusion

There remains considerable debate surrounding the role and influence of environmental factors in general, and the environmental impact of the use of an international watercourse on other watercourse States in particular, in determining an equitable regime for the utilisation of international watercourses. Some leading authorities have concluded that the causing of significant harm to the environment is a special category of injury which makes the harmful utilisation an inequitable use of the watercourse *per se*.¹¹⁵ Though the International Law Association has clearly articulated the opposing view, stating that ‘uses of the waters by a basin State that cause pollution in a co-basin State must be considered from the overall perspective of what constitutes an equitable utilization’,¹¹⁶ this pronouncement dates from before the advent of modern international environmental law and policy normally associated with the 1972 Stockholm process. The International Law Commission has been rather more circumspect with regard to the significance of the obligation to prevent transboundary harm for the operation of the principle of equitable utilisation.¹¹⁷ Its 1991 Draft Articles accorded priority to the duty to prevent harm so that pollution, or any other class of interference, which caused significant harm would be inequitable *per se*.¹¹⁸ In 1993, the Special Rapporteur, Mr. Robert Rosenstock, considering that the Draft Articles should be reconsidered and updated to reflect developments in the area of international environmental law and practice, proposed a redraft of Article 7 which would have made it clear that equitable and reasonable utilisation was the decisive criterion in determining the permissible uses of an international watercourse but which would also have given special treatment to pollution so that it created a rebuttable presumption of inequity.¹¹⁹ The final version

¹¹⁴ *Supra*, n. 70, at 411, citing McCaffrey, *Third Report*, at 23, para. 34.

¹¹⁵ For example, Nollkaemper, *supra*, n. 84, at 68-69.

¹¹⁶ International Law Association, *Report of the Fifty-Second Conference* (Helsinki, 1966), at 499.

¹¹⁷ See generally, X. Fuentes, ‘The Criteria for the Equitable Utilization of International Rivers’, (1996) 67 *British Yearbook of International Law* 337, at 409-411.

¹¹⁸ See further, Fuentes, *ibid.*, at 409-410.

¹¹⁹ See, R. Rosenstock, ‘Non-Navigational Uses of International Watercourses’, (1993) 23 *Environmental Policy and Law* 241, at 242. The proposed Article 7 provided that:

‘Watercourse States shall exercise due diligence to utilize an international watercourse in such a way as not to cause significant harm to other watercourse States, absent their agreement, except as may be allowable under an equitable and reasonable use of the watercourse. A use which causes significant harm in the form of pollution shall be presumed to be an inequitable and unreasonable use unless there is:

a clear showing of special circumstances indicating a compelling need for *ad hoc* adjustment; and the absence of any imminent threat to human health and safety.’

R. Rosenstock, *First Report on the Law of the Non-Navigational Uses of International Watercourses* (1993), UN Doc. A/CN.4/415, at 10.

of Article 7, adopted by the Commission in 1994, makes no mention of pollution and simply subordinates the obligation to prevent significant harm to the principle of equitable and reasonable utilisation.¹²⁰ Therefore, at least in relation to Articles 5 and 7, it would appear that pollution is not to be given special treatment nor viewed as a particularly significant class of harm. However, the ILC's 1994 Draft Articles, and now the 1997 UN Convention, proceeded to include a general obligation to protect and preserve the ecosystems of international watercourses¹²¹ and an obligation to prevent, reduce and control pollution of an international watercourse that may cause significant harm to other watercourse States or their environment.¹²² Similarly, the Convention requires watercourse States to take all measures necessary to protect and preserve the marine environment.¹²³ Neither the Convention nor the commentary to the earlier Draft Articles elaborate on the relationship between these obligations and the principle of equitable utilisation and, in particular, on whether the scope of the latter principle is limited by the operation of these environmental obligations. Somewhat unhelpfully, the commentary to Article 21(2) merely states that '[T]his paragraph is a specific application of the general principles contained in articles 5 and 7'.¹²⁴

At any rate, it is possible to argue that environmental factors are likely to enjoy a certain priority, or at least an increasing significance, within the balancing process that comprises practical implementation of the principle of equitable utilisation. Though any conclusions as to the relative significance of factors relating to environmental protection could only ever amount to 'rules of thumb' or broad guidelines to assist the diplomatic negotiator, legal advisor or judicial decision-maker, they are useful and necessary nonetheless. One writer, discussing the case of the Jordan River, notes that 'consideration of all these factors without a method of gauging their relative importance cannot provide conclusive and realistic conclusions to disputes over international waters'.¹²⁵ Despite the fact that Articles 6(3)¹²⁶ and 10(1)¹²⁷ of the 1997 Convention respectively provide that no particular factor or use enjoys inherent priority, it would

¹²⁰ The commentary to Article 7 explains that:

'In certain circumstances "equitable and reasonable utilization" of an international watercourse may still involve significant harm to another watercourse State. Generally in such instances, the principle of equitable and reasonable utilization remains the guiding criterion in balancing the interests at stake'.

Report of the International Law Commission to the General Assembly on the Work of its Forty-Sixth Session, Doc.A/49/10 (1994), at 236.

¹²¹ Articles 20 and 22.

¹²² Article 21(2).

¹²³ Article 23.

¹²⁴ *ILC Report* (1994), at 291.

¹²⁵ J. M. Wenig, 'Water and Peace: The Past, the Present and the Future of the Jordan River Watercourse: An International Law Analysis' (1995) 27 *New York University Journal of International Law and Policy* 331, at 348.

¹²⁶ Article 6(3) provides:

'The weight to be given to each factor is to be determined by its importance in comparison with that of other relevant factors. In determining what is a reasonable and equitable use, all relevant factors are to be considered together a a conclusion reached on the basis of the whole.'

¹²⁷ Article 10(1) provides that

'In the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses.'

certainly appear that, along with the consideration of vital human needs which are accorded a special position under Article 10(2),¹²⁸ factors relating to environmental protection, as articulated or alluded to in Articles 5, 6, 7, 20, 21, 22 and 23, enjoy enhanced significance by virtue of their express and detailed inclusion. Article 21(3), for example, specifically lists indicative measures and methods to prevent, reduce and control pollution of an international watercourse on which watercourse States shall consult with a view to reaching agreement.¹²⁹ Clearly, such detailed conventional guidance for the practical implementation of the obligation to prevent, reduce and control pollution of an international watercourse that may cause significant harm to other watercourse States is of considerable assistance in determining whether environmental factors have been adequately considered, or in ensuring that environmental obligations are duly discharged, as a component of an equitable regime for the utilisation of shared waters. Obviously, the implementation of detailed environmental provisions will be greatly assisted where international joint bodies have been established with the requisite technical and other resources to facilitate appropriate fact-finding and consultation. Some commentators have interpreted Articles 7, 20 and 21 [of the Draft Articles] as establishing the requirement of due diligence as the determinative criterion so that harm due to a failure to satisfy this requirement is inequitable *per se*.¹³⁰

Procedural obligations, however, and the requirement to conduct an EIA in particular, play a key role in ensuring that environmental considerations relating to a planned or continuing use of a watercourse are adequately understood and presented and thus that they may properly be taken into account. Also, the principle of sustainable development, if it is to be equated with the principle of equitable utilisation in the particular context of international watercourses, would lend support to the proposition that considerations of environmental protection enjoy very considerable significance under the latter principle, as environmental protection has always constituted a major component factor of the former. Further, the widespread use of international joint commissions to facilitate the common management of international watercourses plays an important role in ensuring that factors relating to environmental protection are identified, articulated and given due consideration in determining regimes for the equitable utilisation of those watercourses. Such international bodies are charged with a variety of functions, ranging from fact-finding roles to the settlement of disputes but, as their environmental responsibilities

¹²⁸ Article 10(2) provides that

‘In the event of a conflict between uses of an international watercourse, it shall be resolved with reference to articles 5 to 7, with special regard being given to the requirements of vital human needs.’

¹²⁹ These include:

‘(a) Setting joint water quality objectives and criteria;
(b) Establishing techniques and practices to address pollution from point and non-point sources;
(c) Establishing lists of substances the introduction of which into the waters of an international watercourse is to be prohibited, limited, investigated or monitored.’

¹³⁰ Brunée and Toope, *supra*, n. 26, who conclude, at 63-64, that

‘[T]he Draft Articles adopted in 1994 ... ultimately make due diligence the decisive criterion. Thus, significant harm resulting from a failure to exercise due diligence violates both the transboundary harm and equitable use principles.’

See further, however, Fuentes, *supra*, n. 117, who strongly disagrees with this interpretation, at 411.

are normally expressly included in their founding instruments, they would usually enjoy a clear mandate to act in the interest of environmental protection as well as the technical, legal, political and administrative expertise to do so effectively. Finally, it is a moot point whether several of the proposed rules and principles of international environmental law have achieved the status of 'custom' for the purposes of Article 10(1) and, accordingly, for determining whether considerations of environmental protection may enjoy priority over other relevant factors. Indeed, regardless of whether or not they have formally achieved customary status, the sophisticated and detailed articulation of the rules and principles of international law provides a comprehensive set of reference standards and procedures to assist the consideration of environmental impacts and benefits. It is contended that it is the degree of normative specificity of rules and principles of environmental protection, substantive and procedural, that plays the most significant role in practice in ensuring that environmental values are accorded very considerable, and even disproportionate, weight in any equitable balancing of interests.

A Sustainable Development

As the notion of sustainable development has its origins in conventional and declaratory instruments of international environmental law and has always sought to reconcile protection of the natural environment with the requirements of economic and social development, it is to be expected that environmental considerations would figure strongly in any application of the principle. The 1987 Bruntland Report, which brought the concept to centre-stage, elaborates on its substantive content, stating that '[I]t contains two key concepts: the concept of "needs" ... and the idea of limitations imposed by the state of technology and social organizations on the environment's ability to meet present and future needs'.¹³¹ Indeed, Fuentes, in an examination of the relative priority accorded to environmental and developmental values respectively under the concept of sustainable development, concludes that '[T]he balance seems to tip in favour of the protection of the environment', and that 'environmental protection has developed to a certain extent at the expense of international economic law relating to development'.¹³² She explains that this phenomenon can be attributed to a number of reasons. First, she suggests that there is a 'democratic deficit' in international environmental law-making, due to the opening of 'the international environmental law-making process to greater participation by the so-called "transnational civil society"',¹³³ for whom 'environmental concerns have figured more prominently in their international agenda'.¹³⁴ She observes that 'NGOs concerned with poverty alleviation and those propounding more equitable economic relations between States seem not to have acquired the same degree of influence as environmental NGOs, industries, and businesses'.¹³⁵ Secondly, she argues that '[E]nvironmental law, in contrast to international development law, has proved particularly suitable for the use of a "rights and duties" language', which provides environmental law, and the values which are inherent therein, with 'autonomy' or

¹³¹ World Commission on Environment and Development, *Our Common Future (The Bruntland Report)* (OUP, 1987), at 43.

¹³² X. Fuentes, 'International Law-Making in the Field of Sustainable Development: the Unequal Competition between Development and the Environment', (2002) 2 *International Environmental Agreements: Politics, Law and Economics* 109, at 109.

¹³³ *Ibid.*, at 113.

¹³⁴ *Ibid.*, at 115.

¹³⁵ *Ibid.*, at 117-118.

something of an absolute character so that ‘policy considerations are generally excluded from the interpretation and application of the law’.¹³⁶ She explains that ‘[T]his perspective puts environmental considerations in a privileged position as it would not be necessary to assess their relevance alongside other concerns’.¹³⁷ In relation to shared water resources in particular, Fuentes points to the

apparent contradiction between the principle of equitable utilization, which in principle requires consideration of the environmental impact of the utilization on an international watercourse along with other criteria, and Articles 7, 20 and 21 [of the 1997 Convention] which might be interpreted as having the effect of putting environmental impact outside the scope of application of the principle of equitable utilization.¹³⁸

She goes on to explain that this interpretation ‘results, in practice, in a restriction of the operation of the principle of equitable utilization. According to this interpretation, environmental impact will not be subject to distributive (or developmental) considerations’.¹³⁹ Thirdly, Fuentes points to the emergence of a nascent human right to a ‘decent’ or ‘healthy’ environment and suggests that ‘through the establishment of a human right to a healthy environment, environmental considerations may be given priority over mere economic and social interests’.¹⁴⁰ She points out that ‘the very idea of environmental rights can defeat the central nucleus of sustainable development [and thus of equitable utilisation]: the achievement of integration between development and the environment’.¹⁴¹ She further argues that, even if the right to a healthy environment cannot be regarded as a ‘human right’ in any orthodox sense, it may be considered to be a political and civil right or an economic and social right, and concludes that ‘[E]ither of these two forms strengthen the potential of a right to a healthy environment to take precedence over non-right based interests’.¹⁴²

In relation to the use of shared freshwater resources, it has been suggested that the principle of equitable and reasonable utilisation ‘operationalises’ the notion of sustainable development.¹⁴³ Brunée and Toope point out that

[A] link between equitable use and sustainability would promote common environmental interests of states in several respects. First, the linkage emphasizes the need to consider the environmental context when balancing competing use

¹³⁶ *Ibid.*, at 118.

¹³⁷ *Ibid.*

¹³⁸ *Ibid.*, at 124.

¹³⁹ *Ibid.* Indeed, she points to support for this interpretation, stating, *ibid.*, at 125, that ‘in other areas of international law, such as the allocation of trans-boundary natural resources, the idea that environmental impact should be one more criterion to be taken into account in the establishment of equitable regimes for the utilization of shared natural resources has run into considerable opposition’.

¹⁴⁰ *Ibid.*, at 126.

¹⁴¹ *Ibid.*

¹⁴² *Ibid.*, at 128.

¹⁴³ See, *inter alia*, Wouters and Rieu-Clarke, *supra*, n. 53, at 283; Kroes, *supra*, n. 53, at 83; and McIntyre, *supra*, n. 53, at 88.

interests. Below the threshold of transboundary harm, and even where there may be no current interference with the equitable share of another state, a sustainability criterion would articulate long-term environmental limits to water use. Second, the notion of sustainable development ties a state's resource use into a broader international context. Because the concept applies both in the "micro" and "macro" context of environmental management, a state's performance will be measured against local, regional, and even global sustainability criteria. The concept thus acknowledges the commonality of environmental concerns and the indivisibility of ecosystems.¹⁴⁴

Therefore, universal recognition of the application of the overarching objective of sustainable development to the law relating to the utilisation of international watercourses may be regarded as making applicable to this area of law the plethora of international rules and standards relating to environmental protection in general and to the protection of water quality and watercourse ecosystems in particular. Indeed, as authoritative a commentator as Charles Bourne, in the course of an analysis of the principles of equity, no harm and sustainability as included in the 1997 Convention, concludes that sustainability is a goal or objective which could be attained by reliance on equity.¹⁴⁵ Similarly, Lowe concludes, in relation to the flexibility inherent in the application of equitable principles, that

These characteristics make equity particularly suitable for discussions in contexts where there are competing interests which have not hardened into specific rights and duties. This will be true primarily in areas where the law is not highly developed. The nascent concept of intergenerational equity, and of equitable principles in environmental law, are examples.¹⁴⁶

Despite criticism to the effect that the principle of equitable utilisation as articulated in the 1997 Convention does not go far enough in terms of achieving sustainability,¹⁴⁷ Botchway

¹⁴⁴ *Supra*, n. 26, at 67-68.

¹⁴⁵ C. B. Bourne, 'The Primacy of the Principle of Equitable Utilization in the 1997 Watercourses Convention', (1997) 35 *Canadian Yearbook of International Law* 215, at 221-230.

¹⁴⁶ V. Lowe, 'The Role of Equity in International Law', (1992) 12 *Australian Yearbook of International Law* 54, at 73. Reprinted in M. Koskenniemi, *Sources of International Law* (Ashgate, Dartmouth, 2000) 403)

¹⁴⁷ See, in particular, A. Nollkaemper, 'The Contribution of the International Law Commission to International Water Law: Does it Reverse the Flight from Substance?', (1996) XXVII *Netherlands Yearbook of International Law* 39; G. Handl, 'The International Law Commission's Draft Articles on the Law of International Watercourses (General Principles and Planned Measures): Progressive or Retrogressive Development of International Law?' (1992) 3 *Colorado Journal of International Environmental Law and Policy* 123; E. Hey, 'Sustainable Use of Shared Water resources: the Need for a Paradigmatic Shift in International Watercourse Law', in G. H. Blake *et al* (eds.), *The Peaceful Management of Transboundary Resources* (1995), 127; R. Rahman, 'The Law of the Non-Navigational Uses of International Watercourses: Dilemma for Lower Riparians', (1995) 8 *Fordham International Law Journal* 9; E. Benvenisti, 'Collective Action in the Utilization of Shared Freshwater: The Challenges of International Water Resources Law' (1996) 90 *American Journal of International Law* 384.

concludes that ‘the Watercourses Convention does represent an advance on the previous judicial texts, especially the Helsinki Rules’.¹⁴⁸ He points out that the doctrine of equitable utilisation adopted under the Convention, if considered in conjunction with the obligations to notify and co-operate, includes many of the features of sustainable development, noting that ‘[I]n many ways, the Watercourses Convention incorporates the concepts of polluter pays, integration of environmental concerns into economic planning, the precautionary principle, and EIA’.¹⁴⁹ Further, he goes so far as to suggest renaming the concept borne of the marriage of sustainable development and equitable utilisation, stating that ‘[A]ll this can be recast in a modified version of sustainable development and equitable development, a hybrid concept – *sustainable equity*’.¹⁵⁰

In the *Gabčíkovo-Nagymaros* case,¹⁵¹ it is clear that the International Court of Justice was concerned to ensure that, in the development of the Danube, environmental factors were to be given full consideration and accorded considerable significance in the determination of an equitable regime for the utilisation of the river. The Court referred to ‘this need to reconcile economic development with protection of the environment ... aptly expressed in the concept of sustainable development’,¹⁵² which Judge Weeramantry, in his separate opinion, considered to be ‘more than a mere concept, but a principle with normative value crucial to the determination of this case’.¹⁵³ Therefore, in the context of the utilisation of international watercourses, the ICJ is prepared to have regard to the evolving principle of sustainable development in order to identify and give effect to the environmental obligations inherent in the principle, as expressed in Article 5 of the 1997 UN Convention, of equitable and reasonable utilisation of an international watercourse ‘with a view to attaining optimal and sustainable utilization thereof’. However, of the various substantive and procedural elements which together constitute the concept of sustainable development,¹⁵⁴ the requirement that States conduct an EIA of projects or activities likely to cause significant harm to other States enjoys the clearest support in State and judicial practice, and so the clearest independent normative status, and can, in practical terms, exert the greatest influence on the attainment of sustainability and the discharge of the environmental obligations inherent in equitable utilisation.

B Environmental Impact Assessment

The requirement to carry out an environmental impact assessment of any development or activity likely to cause harm to the environment of an international watercourse or of another watercourse State plays a very important role in ensuring that environmental concerns are likely to figure prominently in determining an equitable regime for the utilisation of an international watercourse.

¹⁴⁸ F. N. Botchway, ‘The Context of Trans-Boundary Energy Resource Exploitation: The Environment, the State and the Methods’, (2003) 14 *Colorado Journal of International Environmental Law and Policy* 191, 222-223.

¹⁴⁹ *Ibid.*, at 223.

¹⁵⁰ *Ibid.*, at 222 (original emphasis).

¹⁵¹ *Supra*, n. 32.

¹⁵² *Ibid.*, at 67, para. 140.

¹⁵³ Separate Opinion of Vice-President Weeramantry, at 1. See further, McIntyre, *supra*, n. 32, at 87.

¹⁵⁴ On the elements of sustainable development, see further, Sands, ‘International Law in the Field of Sustainable Development’ (1994) 65 *British Yearbook of International Law*, at 379. See also, Botchway, *supra*, n. 148, at 204-214.

As the practice of assessment evolves through, *inter alia*, the collection and study of environmental impact statements in central repositories,¹⁵⁵ the adoption of a general convention on transboundary EIA which is widely taken to set universal minimum standards for transboundary EIA procedures,¹⁵⁶ and the elaboration of sector-specific guidelines by multilateral development banks¹⁵⁷ or non-governmental organisations,¹⁵⁸ an increasingly sophisticated means of identifying, understanding and communicating environmental concerns is developing which ensures that such concerns can readily be taken into account by decision-makers and policy-makers. Numerous international expert groups, such as the World Water Council (WWC)¹⁵⁹ and the Global Water Partnership (GWP),¹⁶⁰ have contributed to the formulation of guidelines, codes of conduct or practice standards on the exploitation of shared water resources, each of which advocates the use of EIA procedures. Similarly, the World Commission on Dams (WCD), a forum which brought together representatives of all stakeholders with an interest in dam-building, including environmental NGOs, reported its conclusions in 2000 and proposed 26

¹⁵⁵ For example, many academic institutions collect and collate completed Environmental Impact Statements for the purposes of teaching and research.

¹⁵⁶ 1991 (Espoo) Convention on Environmental Impact Assessment in a Transboundary Context, (1991) 30 *ILM* 802. See, Okowa, *supra*, n. 40, who states at 282:

‘A broad range of standards and largely non-controversial principles may nevertheless be detected in existing treaty instruments. The 1991 ECE Convention on environmental impact assessment, for instance, specifies in some detail the minimum components of a good environmental impact assessment.’

¹⁵⁷ For example, The European Bank for Reconstruction and Development (EBRD) has adopted an Environmental Policy which seeks to ensure, through a very detailed environmental appraisal process, that the projects it finances are environmentally sound and are designed to operate in compliance with applicable regulatory requirements. The Bank’s Environmental Policy requires (at 20) that:

‘For projects involving transboundary impacts, the notification and consultation guidelines in the working papers to the UNECE Convention on EIA in a Transboundary Context must be taken into account in the planning process and followed in principle.’

It further provides (*ibid.*) that:

‘For all projects involving Environmental Impact Assessments according to the Bank’s requirements, the Bank will take guidance from the principles of the UNECE’s Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters’

To this end, the EBRD has prepared detailed Environmental Procedures which provide guidance as to how the environmental appraisal should be conducted and over 80 sets of Sub-Sectoral Environmental Guidelines covering, for example, fish processing, logging, stone, sand and gravel extraction, pulp and paper, hazardous waste management, potable water supplies, *etc.* For further details, see <http://www.ebrd.com/about/strategy/index.htm>

¹⁵⁸ See, for example, the guidelines published by the World Wide Fund for Nature (WWF) in relation to the construction and operation of large dams, at <http://www.panda.org/dams>

¹⁵⁹ See further, www.worldwatercouncil.org, where a search of the WWC’s World Water Actions Inventory lists 840 actions, campaigns, legal proceeding, policy initiatives, *etc.* where the issue of EIA of freshwater projects is central.

¹⁶⁰ See further, www.gwpforum.org, which lists numerous technical papers and reports prepared or commissioned by the Global Water Partnership.

guidelines for the building of dams, including guidelines for the protection of the environment which advocate the use of EIA procedures.¹⁶¹ In particular, the WCD recommended among its ‘Strategic Priorities for Decision-Making’, the use of ‘Comprehensive Options Assessment’, stating that:

In the assessment process, social and environmental aspects have the same significance as economic and financial factors. The options assessment process continues through all stages of planning, project development and operations.¹⁶²

It is somewhat redundant to argue that EIA of projects or activities potentially causing transboundary harm is not required by law. The obligation to conduct an EIA is commonly associated with the well established duty to prevent transboundary harm¹⁶³ and its allied duties to notify and consult with potentially affected States in relation to any planned projects or activities that might give rise to such harm.¹⁶⁴ Even those commentators who do not accept that the requirement to conduct transboundary EIA stems from the duty to prevent transboundary harm do not argue that the requirement enjoys no normative status in general international law, but rather that it has developed instead from the application of the principle of ‘non-discrimination’.¹⁶⁵ The requirement for transboundary EIA has also been closely linked with practical implementation of the more general concept of sustainable development¹⁶⁶ and with application of the precautionary principle.¹⁶⁷ Further, if the due diligence requirement is the determinative criterion in determining breach of the obligation not to cause significant harm and, possibly, a key factor in determining the equity or inequity of a particular regime of utilisation,¹⁶⁸ failure to conduct an adequate EIA is likely, *prima facie*, to indicate such a breach.

At a more practical level, practically all infrastructure projects funded by multilateral development banks (MDBs) or otherwise assisted by international development agencies are now required to undergo an EIA procedure in order to assess their potential domestic, transboundary and global environmental effects.¹⁶⁹ Indeed, the World Commission on Dams expressly

¹⁶¹ World Commission on Dams, *Dams and Development: A New Framework for Decision-Making* (The Report of the World Commission on Dams) (Earthscan, 2000).

¹⁶² See, *Dams and Development: A New Framework for Decision-Making – An Overview*, at 24, available at <http://www.dams.org>

¹⁶³ See, for example, P. M. Dupuy, *supra*, n. 3, at 66-68.

¹⁶⁴ See, for example, Birnie and Boyle, *supra*, n. 31, at 131.

¹⁶⁵ See, for example, J. H. Knox, *supra*, n. 31, at 296-301.

¹⁶⁶ See, for example, Sands, *supra*, n. 154, and Botchway, *supra*, n. 148, and X. Fuentes, ‘Sustainable Development and the Equitable Utilization of International Watercourses’, (1999) 70 *British Yearbook of International Law* 119, at 125-129.

¹⁶⁷ See, for example, O. McIntyre and T. Mosedale, ‘The Precautionary Principle as a Norm of Customary International Law’, (1997) 9 *Journal of Environmental Law* 221, and A. Kiss, ‘The Rights and Interests of Future Generations’, in D. Freestone and E. Hey (eds.), *The Precautionary Principle and International Law* (The Hague, 1996) 26.

¹⁶⁸ See Brunée and Toope, *supra*, n. 26.

¹⁶⁹ See further, W. V. Kennedy, ‘Environmental Impact Assessment and Multilateral Financial Institutions’, in J. Petts (ed.), *Handbook of Environmental Impact Assessment: Environmental Impact Assessment in Practice – Impact and Limitations* (1999), 98.

recommends in relation to projects for the storage and diversion of water in transboundary rivers that:

Where a government agency plans or facilitates the construction of a dam on a shared river in contravention of the principle of good faith negotiations between riparians, external financing bodies withdraw their support for projects and programmes promoted by that agency.¹⁷⁰

Given the significance of the EIA procedure for effective implementation of and compliance with the principle of 'good faith negotiations', it is clear that it will very often be required in practice. Many of these procedures have evolved over time in terms of their sophistication and thoroughness and now comprise a *de facto* corpus of EIA law for States wishing to avail of such assistance.¹⁷¹ These rules are likely to impact more on developing than developed countries. It is clear that in developed countries a great deal of water infrastructure has already been built and thus that most disputes over international watercourses are likely to arise among developing countries as most future development is likely to take place in such countries.¹⁷² Ultimately, many leading commentators conclude that, '[I]n practice, many least developed countries conduct EIA for projects only when it is required as a condition of international aid'.¹⁷³ Therefore, as well as providing a means for the discharge of the duty to

¹⁷⁰ *Supra*, n. 161, at 28.

¹⁷¹ For the current World Bank rules on EIA, see World Bank Operational Manual OP 4.01: *Environmental Assessment* (1999). For an overview of the rule on EIA required for development projects funded by the Asian Development Bank, the European Bank for Reconstruction and Development, the European Investment Bank, and the Inter-American Development Bank, see (1993) 4 *Yearbook of International Environmental Law*, at 528-549.

¹⁷² See, for example, 'A Survey of Water', *The Economist*, 19th July, 2003. To illustrate, the survey points out that the United States has 7,000 cubic metres of water storage capacity per head of population, while South Africa has 700, the rest of Africa has 25 and Kenya has four, *ibid.*, at 10. Similarly, Ethiopia has exploited an estimated three per cent of its hydropower potential while the figure for Japan is 90 per cent, *ibid.* In order to illustrate further the urgency of the need to improve water infrastructure in developing countries, the survey points out that as much as 60 per cent of the world's illness is water-related, *ibid.*, at 5. In 2000, investment in water in developing countries was estimated to be running at between \$75-80 billion, and a group established under the auspices of the WWC and the GWP suggested that, in order to meet the development goals agreed at the Johannesburg Earth Summit in August 2002, investment would have to be raised to around \$180 billion, *ibid.* During the 1990s, an estimated US\$32-46 billion was spent annually on large dams, four fifths of it in developing countries, WCD, *Dams and Development: A New Framework for Decision-Making*, *supra*, n. 161, at 11. See further, C. O. Okidi, 'The State and the Management of International Drainage Basins in Africa', (1988) 28 *Natural Resources Journal* 645, at 649; C. O. Okidi, "'Preservation and Protection" Under the 1991 ILC Articles on the Law of International Watercourses', (1992) 3 *Colorado Journal of International Environmental Law and Policy* 143, at 148.

¹⁷³ Knox, *supra*, n. 31, at 297. See also, C. Wood, *Environmental Impact Assessment: A Comparative Review* (1995), at 303 and C. George, 'Comparative Review of Environmental Assessment Procedures and Practice', in N. Lee and C. George (eds.), *Environmental Assessment in Developing and Transitional Countries* (2000) 35, at 49.

prevent transboundary harm and the duty to co-operate and for the practical implementation of the precautionary principle and the concept of sustainable development, EIA is very widely used by MDBs and other development agencies to ensure that considerations of environmental protection are fully taken into account in the planning of projects enjoying their support. This *de facto* requirement to conduct an EIA provides a more or less formal process for facilitating the consideration of environmental impacts, which is rather more than exists for any of the other factors relevant to the determination of an equitable and reasonable regime for the utilisation of an international watercourse, even those relating to vital human needs which occupy a special position by virtue of Article 10(2). The very existence of such a formal procedure can only help to ensure that environmental considerations ‘punch above their weight’ in the process of balancing competing interests. Also, consistent use by States of the EIA procedure and its widespread adoption into domestic legislation can only add to the stock of international State practice supporting the proposition that the requirement to conduct transboundary EIA has become a norm of customary international law.

C International Commissions

It can be difficult to study empirically the relative significance attached to environmental factors in State practice relating to the utilisation of international watercourses as such practice will often take place at a confidential and unrecorded diplomatic level. Therefore, it is useful to examine the practice of the many international joint commissions established to facilitate inter-governmental agreement in river basin planning and utilisation. Such bodies vary greatly in terms of their composition and function but almost all possess considerable technical skills and resources and operate under an express mandate to further the environmental protection of the international watercourse and, possibly, the wider natural environment. This trend has become more marked in recent years. For example, the 1994 Agreements on the Protection of the Rivers Meuse and Scheldt create an international commission to facilitate co-operation between the parties for the purposes of the environmental protection of the rivers.¹⁷⁴ Similarly, the 1994 Convention on Co-operation for the Protection and Sustainable Use of the Danube River¹⁷⁵ establishes an international commission¹⁷⁶ to ensure co-operation in order to

at least maintain and improve the current environmental and water quality conditions of the Danube River and of the waters in its catchment area and to prevent and reduce as far as possible adverse impacts and changes occurring or likely to be caused.¹⁷⁷

The Danube Commission has more specific functions including, where appropriate, the establishment of emission limits applicable to individual industrial sectors, the prevention of the release of hazardous substances, and the definition of water quality objectives.¹⁷⁸ The practice of the US-Canada International Joint Commission (IJC) is particularly instructive as it is one of the longest established such agencies and provides a comprehensive body of recorded examples of

¹⁷⁴ (1995) 34 *ILM* 851 and 859, Article 2(2).

¹⁷⁵ *Yearbook of International Environmental Law* (1994), doc. 16.

¹⁷⁶ Article 4.

¹⁷⁷ Article 2(2).

¹⁷⁸ Article 7.

the consideration of environmental impacts in the context of the use of shared freshwaters.¹⁷⁹ The IJC was established by the 1909 Boundary Waters Treaty¹⁸⁰ for the purpose of issuing orders of approval in response to applications for the use, obstruction or diversion of the shared boundary waters which may affect the natural water levels or flows,¹⁸¹ and may also investigate specific issues if so requested by both States.¹⁸² High profile examples of disputes involving a significant environmental element include those concerning the Garrison Diversion scheme,¹⁸³ the Poplar River¹⁸⁴ and the Flathead River.¹⁸⁵

The potential role of such joint bodies has been considerably augmented by means of their express mention in a number of important framework conventions relating to international watercourses. Though it does not require the establishment of international joint commissions, the 1997 UN Convention expressly recognises the valuable role they can play by providing under Article 8, which contains the general duty to co-operate, that

In determining the manner of such cooperation, watercourse States may consider the establishment of joint mechanisms or commissions, as deemed necessary by them, to facilitate cooperation on relevant measures and procedures in the light of experience gained through cooperation in existing joint mechanisms and commissions in various regions.¹⁸⁶

Such joint mechanisms or commissions would be particularly useful in giving effect to the specific measures and methods for preventing, reducing and controlling pollution of an international watercourse suggested under Part IV of the Convention.¹⁸⁷ Indeed, the 2000 Southern African development Community (SADC) Revised Protocol on Shared Watercourses, which was adopted largely to give effect to key provisions contained in the 1997 UN Convention,¹⁸⁸ sets out a very detailed institutional framework for its implementation.¹⁸⁹ In

¹⁷⁹ See further, X. Fuentes, *supra*, n. 166, at 150-155.

¹⁸⁰ 1909 Treaty between the United States and Great Britain relating to Boundary Waters and Questions Arising between the United States and Canada, 102 *British and Foreign State Papers* 137.

¹⁸¹ Articles III and IV.

¹⁸² Article IX.

¹⁸³ International Joint Commission, *Transboundary Implications of the Garrison Diversion Unit* (1977).

¹⁸⁴ International Joint Commission, *Water Quality in the Poplar River Basin* (1981).

¹⁸⁵ International Joint Commission, *Impacts of a Proposed Coal Mine in the Flathead River Basin* (1988).

¹⁸⁶ Article 8(2).

¹⁸⁷ For example, Article 21(3) proposes that watercourse States introduce the following measures and methods:

‘(a) Setting joint water quality objectives and criteria;
(b) Establishing techniques and practices to address pollution from point and non-point sources;
(c) Establishing lists of substances the introduction of which into the waters of an international watercourse is to be prohibited, limited, investigated or monitored.’

¹⁸⁸ The Revised Protocol incorporates all the key substantive provisions contained in the 1997 Convention and its Preamble expressly refers to the Convention, stating at para. 1:

contrast to the 1997 UN Convention, Article 9 of the 1992 ECE Helsinki Convention, which concerns bilateral and multilateral co-operation, expressly requires that bilateral or multilateral agreements or other arrangements entered into by the parties pursuant to the Convention ‘shall provide for the establishment of joint bodies’.¹⁹⁰ Article 9(2) goes on to provide a comprehensive list of tasks which these joint bodies shall undertake.

Article 9 further provides for the participation of non-riparian coastal States directly and significantly affected by transboundary impact in the activities of multilateral joint bodies established by riparians¹⁹¹ and for the co-ordination of the activities of joint bodies where two or more exist in the same catchment area.¹⁹² Indeed, the 1992 Convention even provides a definition of a ‘joint body’ which it describes as ‘any bilateral or multilateral commission or other appropriate institutional arrangements for cooperation between the Riparian Parties’.¹⁹³

Therefore, by creating a technically-competent inter-governmental body with responsibility for identifying in detail the adverse environmental effects of any ongoing or planned use of an international watercourse, and a formal procedural mechanism for presenting its findings and recommendations in this regard, the increasingly common practice of establishing international joint commissions almost inevitably serves to bring environmental considerations to the fore. Of course, such commissions may have regard to or assist in the preparation of Environmental Impact Statements (EISs) as part of a formal transboundary EIA process.

D Custom

Though debate rages about the status in customary international law of various rules and principles of international environmental law, it is almost beyond argument that new binding customary norms have emerged in relation to protection of the environment. In the *Gabčíkovo-Nagymaros* case, the ICJ confirmed that new environmental norms and standards have emerged which must be taken into account when States consider projects or activities which might involve adverse environmental impacts. The Court stated:

Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past, this was often done without consideration of the effects upon the environment. 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,*

‘Bearing in mind the progress with the development and codification of international water law initiated by the Helsinki Rules and that the United Nations subsequently adopted the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses.’

¹⁸⁹ Article 5.

¹⁹⁰ Article 9(2) (emphasis added).

¹⁹¹ Article 9(3) and (4).

¹⁹² Article 9(5).

¹⁹³ Article 1(5).

*and such new standards given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past.*¹⁹⁴

The Court proceeded to recognise that many of these environmental norms and standards are included within the concept of sustainable development.

It should be remembered that the lack of hierarchical ranking among the factors relevant to equitable utilisation came under serious challenge in the deliberations of the General Assembly Working Group on the 1997 Convention from those ‘environmentally-minded delegations desirous of having the importance of the new standards and principles of international environmental law adequately reflected in the articles of the Convention concerning equitable utilisation’.¹⁹⁵ Indeed, the Finnish delegation proposed inserting a new *chapeau* for Article 6 of the Convention, stating that

Utilisation of an international watercourse in an equitable and reasonable manner within the meaning of Article 5 requires taking into account all relevant factors and circumstances *with a view to attaining sustainable development of the watercourse as a whole*. Special regard should be given to vital human needs. Relevant factors and circumstances shall include: ...¹⁹⁶

While this principle was strongly supported by those States which sought to introduce substantive standards for the environmentally-sound application of the equitable utilisation principle, a number of delegations strongly objected to it¹⁹⁷ and ‘it is most likely that their negative attitude was dictated by the fear that prominence might be given to environmental standards in the context of the equitable utilisation principle’.¹⁹⁸

Interestingly, Article 10(1) of the 1997 UN Watercourses Convention expressly provides that ‘[I]n the absence of agreement *or custom to the contrary*, no use of an international watercourse enjoys inherent priority over other uses’. Therefore, though Article 10 is concerned with competing uses of water rather than the factors which must be considered in determining a regime for the equitable and reasonable utilisation of a watercourse, it could be argued that any use which is inconsistent with a rule or principle of customary international environmental law should be accorded less priority than any use consistent with customary international environmental law.

Even though Tanzi and Arcari suggest that

One can discern from the *travaux préparatoires* that the word “custom” in Article 10 is intended to refer to that formal source of international law known as “local”,

¹⁹⁴ *Supra*, n. 32, at 67, para. 140. (Emphasis added).

¹⁹⁵ Such delegations included those from Finland, Portugal, Hungary, the Netherlands and Germany. See further, A. Tanzi and M. Arcari, *The United Nations Convention on the Law of International Watercourses* (Kluwer Law International, 2001), at 125-126.

¹⁹⁶ UN Doc. WG/CRP.18, (emphasis added). See further, Tanzi and Arcari, *ibid.*, at 125.

¹⁹⁷ See, for example, the statement by the Chinese delegation, UN Doc. A/C.6/51/SR.16 (1996), at 2, para. 1. See Tanzi and Arcari, *ibid.*, at 126.

¹⁹⁸ Tanzi and Arcari, *ibid.*

“special” or “regional” custom, which is much closer to the concept of tacit agreement than general customary law,¹⁹⁹

the case could certainly be made that customary rules and principles may be considered in determining which uses of an international watercourse might be preferred. Therefore, environmental factors could be given added weight through the interpretation of emerging rules of customary international environmental law.

Further, as is the case with EIA, many emerging norms and principles of customary international environmental law are likely to enjoy informal implementation through the policies and practices of MDBs and other international development agencies. This is particularly true in the case of the duty to co-operate and its component duties to notify and consult. It must be borne in mind, however, that new or emerging norms of international environmental law will rarely, if ever, involve absolute obligations. For the purposes of the determination of an equitable regime of shared freshwater utilisation in particular, such environmental norms must be viewed through the dual prisms of due diligence and proportionality.²⁰⁰ Therefore, the issue of adequate implementation of or compliance with norms such as the duty to prevent transboundary environmental harm must be considered having regard to the reasonableness of a State’s behaviour in light of all the relevant circumstances. Only then might the fact of non-compliance be considered as a material factor in the determination of an equitable regime.

However, possibly the single most important element in facilitating the effective consideration of environmental values within the equitable balancing process that is so central to the principle of equitable utilisation is that of the extent of the detailed elaboration of environmental rules and principles in recent years and their consequent degree of normative specificity and sophistication. In terms of substantive rules, one needs only to consider the ongoing, organic development of environmental due diligence standards which underpin the duty of prevention of significant harm, and which could be found to exist in relation to a wide range of activities, of types of plant and equipment, of protective or preventive works, of technical studies and assessments, and so on. Similarly, one needs only to consider the comprehensive set of procedures and standards which could be found in relation to the conduct of an EIA. Such detailed procedures and standards now exist in relation to literally dozens of industry sectors and categories of activity as well as to various classes of habitat and ecosystem. In terms of procedural rules, one has only to think of the detailed elaboration of guidance on the duty of watercourse States to consult in relation to the adoption of environmental measures under Article 21(3) of the 1997 Convention. It is contended that, by formalising the values, means and procedures by which questions of environmental protection are to be considered within the framework of equitable utilisation, the parallel and independent development of a complex but interrelated corpus of environmental rules and principles performs a vital function in ensuring that such questions are indeed so considered. While disparaging what she considers to be the disproportionate, and possibly inequitable, pre-eminence of environmental considerations (over developmental considerations) within applications of the concept of sustainable development and in the allocation of transboundary natural resources, Fuentes suggests that it is possible

¹⁹⁹ Tanzi and Arcari, *ibid.*, at 137. On ‘local’, ‘special’ or ‘regional’ custom, see further, A. D’Amato, ‘The Concept of Special Custom in International Law’, (1969) 63 *American Journal of International Law* 211.

²⁰⁰ See, for example, M. Kroes, *supra*, n. 53, at 94-95 and 97.

to explain the advantageous position that environmental concerns are gaining, as compared to the slow pace of the developmental aspects of sustainable development, by emphasizing the inadequacies of the international law-making process in the fields of international economic and cooperation law.²⁰¹

This of course suggests that the effectiveness of the international law-making process in the field of environmental law is to some degree responsible for the priority being accorded to environmental concerns.

²⁰¹ *Supra*, n. 132, at 112.