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An Assessment of Recent Developments in International Watercourse Law through the Prism of the Substantive Rules Governing Use Allocation

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ABSTRACT

This paper examines recent developments in the law relating to the non-navigational uses of international watercourses. More specifically, the substantive rules that govern watercourse use—the principles of equitable utilization and no harm—are considered in two lights: as they have been developed by the International Law Commission in its Draft Articles on the Non-Navigational Uses of International Watercourses, and as they are reflected in current state practice. The author concludes that the work of the ILC does not concur with state practice and suggests that Article 7 of the ILC Draft be reconsidered.

I. INTRODUCTION

"*Ready to fight to the last drop*"—so read a recent article describing the shortage of international fresh water resources.[1] Many experts, including UN Secretary-General Boutros Boutros-Ghali,[2] see some truth in this assertion. In fact, there are those who predict the outbreak of "water wars" in the foreseeable future.[3]

A quick survey of the relevant facts speaks for itself: the quantity of fresh water resources continues to diminish for an ever-increasing

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1. John Vidal, *Ready to Fight to the Last Drop*, GUARDIAN WEEKLY, Aug. 20, 1995, at 13.

2. *Id.* (citing comments by U.N. Secretary General Boutros-Boutros Ghali at the Rivers of the Middle East Colloquium in 1988).

3. J. BULLOCH & A. DARWISH, WATER WARS: COMING CONFLICTS IN THE MIDDLE EAST 199 (1993).

population.[4] Pervasive abuse of the environment affects water quality in some parts of the world to such an extent as to be life-threatening.[5]

This article considers recent developments in the law relating to the non-navigational uses of international water-courses through the rubric of the substantive rules that govern use allocation. The principles of equitable utilization and no harm[6] will be examined in two lights: as they have been developed by the International Law Commission (ILC)[7] and as they have been applied in recent State practice.

In 1994, the General Assembly of the United Nations decided that

> at the beginning of the fifty-first session of the General Assembly, the Sixth Committee shall convene as a working group of the whole, open to States Members of the United Nations or members of specialized agencies, for three weeks from 7 to 25

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4. One expert asserts: Growing populations will worsen problems with absolute water availability. In 18 countries of the world in 1990, absolute per capita water availability falls below 1,000 m^3 per year, a level some suggest is an approximate minimum necessary for an adequate quality of life in a moderately developed country. By the year 2025, over 30 countries will be unable to provide 1,000 m^3 per person per year, simply because of population growth. P.H. GLEICK, *Water in the 21st Century, in* WATER IN CRISIS: A GUIDE TO THE WORLD'S FRESH WATER RESOURCES 104, 105 (P.H. Gleick ed., 1993). *See also* Pamela LeRoy, *Troubled Waters: Population and Water Scarcity*, 6 COL. J. INT'L ENVTL. L. & POL'Y 299 (1995); Remarks by Caroline Thomas, panel on Non-Navigational Uses of International Watercourses, Proceedings of the Second Joint Conference (July 22-24, 1993), *in* CONTEMPORARY INTERNATIONAL LAW ISSUES: OPPORTUNITIES AT A TIME OF MOMENTOUS CHANGE 386-87 (R. Lefeber ed., 1994).

5. The Vice-President of the World Bank, Ismail Serageldin, has estimated that there are 80 countries where water shortages threaten health and economies; 40% of the world population has no access to clean water. Vidal, *supra* note 1; *see also* Thomas, *supra* note 4, at 386.

6. On the issues generally, *see* Jerome Lipper, *Equitable Utilization, in* THE LAW OF INTERNATIONAL DRAINAGE BASINS 89 (A.H. Garretson et al. eds., 1967); *see also* Gunther Handl, *The Principle of 'Equitable Use' As Applied to International Shared Resources*, 14 REVUE BELGE DE DROIT INTERNATIONAL 40 (1978); Gunther Handl, *Balancing of Interests and International Liability for the Pollution of International Watercourses: Customary Principles of Law Revisited*, 13 CAN. Y.B. INT'L L. 156 (1975); Charles Bourne, *The Right to Utilize the Waters of International Rivers*, 3 CAN. Y.B. INT'L L. 187 (1965).

7. The ILC adopted a complete set of Draft Articles, with commentaries, on international watercourse law in 1994. *See Report of the International Law Commission on the Work of its Forty-Sixth Session*, U.N. GAOR, 49th Sess., Supp. No. 10, U.N. Doc. A/49/10, at 197 (1994) [hereinafter *ILC 1994 Draft Articles*]; *see also* Stephen McCaffrey, *Current Developments: The International Law Commission Adopts Draft Articles on International Watercourses*, 89 A.J.I.L. 395, 399 (1995) [hereinafter McCaffrey, *Current Developments*]; Stephen McCaffrey, *The International Law Commission*, 5 Y.B. OF INT'L. ENVTL. L. 513, 516 (1994); Malgosia Fitzmaurice, *The Law of Non-Navigational Uses of International Watercourses--The International Law Commission Completes its Draft*, 8 LEIDEN J. INT'L LAW 361, 362 (1995); Virginia Morris & M. Christiane Bourloyannis-Vrailas, *Current Developments: The Work of the Sixth Committee at the Forty-Ninth Session of the UN General Assembly*, 89 AM. J. INT'L. L. 607, 615 (1995).

> October 1996, to elaborate a framework convention on the law of the non-navigational uses of international watercourses on the basis of the draft articles adopted by the International Law Commission in light of the written comments and observations of States and views expressed in the debate of the forty-ninth session.[8]

States were invited to submit written comments on the ILC's Draft Articles by July 1, 1996.[9] The success of this work depends ultimately upon its acceptance by states. Identification of the substantive rules that govern watercourse uses will no doubt be a controversial and difficult issue.[10]

II. THE SUBSTANTIVE RULES OF INTERNATIONAL WATERCOURSE LAW

A. The principles of "equitable utilization" and "no harm"

The principle of equitable utilization, which evolved from early inter-state practice involving watercourses[11] determines the legitimacy of a use by balancing all factors relevant to a particular case and determining from that whether the use is an equitable and reasonable one. The no harm rule, which originated as a general principle of law in inter-state relations,[12] in the context of international watercourses precludes uses that

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8. U.N. GAOR, 49th Sess., Supp. No. 49, at 293 ¶ 3, U.N. Doc. (A/49/49)Doc. A/RES/49/52 (1995).

9. *Id.*

10. States have demonstrated their divergent views on the ILC's approach to the substantive rules governing watercourses from the outset of the project. *See The Law of the Non-Navigational Uses of International Watercourses, Replies by Governments to the International Law Commission's Questionnaire*, U.N. Docs. A/CN.4/294, A/CN.4/294/Add. 1, A/CN.4/3-14, A/CN.4/324, A/CN.4/329, A/CN.4/329/Add.1, A/CN.4/348, A/CN.4/352, A/CN.4/352/Add. 1 (1976); *The Law of the Non-Navigational Uses of International Watercourses, Comments and Observations Received from States*, U.N. Docs. A/CN.4/447, A/CN.4/447/Add.1, Add., Add.3 (1993).

11. Early European decisions include Aargau v. Zurich, Recueil Officiel des Arrêts du Tribunal Fédéral IV, 34 (1878); the Donauversinkung Case, Württemberg & Prussia v. Baden, 4 D.P.I.L. 128 (1927-28); 116 Entscheidungen des Reichsgerichts in Zivilsachen 18 (1927); Société Energie Electrique du Littoral Méditerranéen v. Compagnia Imprese Elettriche Liguri, 9 D.P.I.L. 120 (1938-40); 91 Giurisprudenza Italiana 518 (1939). The doctrine of equitable apportionment was refined in a series of decisions of the U.S. Supreme Court; *see, e.g.*, Kansas v. Colorado, 206 U.S. 46 (1907); Kansas v. Colorado, 185 U.S. 208 (1902); Kansas v. Colorado, 206 U.S. 46 (1907); Connecticut v. Massachusetts, 282 U.S. 660(1931); New Jersey v. New York, 283 U.S. 336 (1931); Wyoming v. Colorado, 286 U.S. 494 (1932); Missouri v. Illinois 200 U.S. 496 (1906); Wisconsin v. Illinois 278 U.S. 367 (1929); Wisconsin v. Illinois, 281 U.S. 179 (1930). *See also* Lucius Caflisch, *The Law of International Waterways and Its Sources, in* ESSAYS IN HONOUR OF WANG TIEYA, 115 (R.St.J. Macdonald ed., 1993).

12. *See, e.g.*, the Trail Smelter arbitral award, 3 R.I.A.A. 1911, 1938, 33 A.J.I.L. 182 (1939); Corfu Channel decision, 1949 I.C.J. 4; Lac Lanoux arbitral award, 12 R.I.A.A. 281 (1957).

result in significant[13] harm to another State. The conflict between the two principles is readily apparent. While the former rule might permit significant harm as a result of an equitable use of the watercourse, the latter would not.

The principles of equitable utilization and no harm each require precision in their application; this occurs on a case-by-case basis. The procedural rules of notification, exchange of information, and consultation assist in this task.[14] Additionally, the general duty to cooperate,[15] and the customary obligation that states peacefully settle their disputes[16] encourage watercourse states to settle any contests over water by agreement.

The normative content of, and the inter-relationship between, the principles of equitable utilization and no harm in the field of watercourse law is defined not only in the ILC Draft, but also in the works of l'Institut de droit international (IDI) and the International Law Association (ILA).[17] The approach in each case is different.[18] While the ILC has adopted a nuanced version of the no significant harm principle as the primary rule of watercourse law, the ILA embraces equitable utilization as the overarching principle,[19] and the IDI, except in cases of pollution where all harm is precluded[20], proposes that equity prevail.[21]

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13. The harm caused must be above a certain threshold. Terms such as "significant," "substantial," and "appreciable" have been used to identify the threshold.

14. *See, e.g., ILC 1994 Draft Articles, supra* note 7, at art. 9, 11-19; *see also* Charles Bourne, *Procedure in the Development of International Drainage Basins: The Duty to Consult and to Negotiate*, 10 CAN. Y.B. INT'L L. 212 (1972) [hereinafter Bourne *Duty to Consult*]; Charles Bourne, *Procedure in the Development of International Drainage Basins*, 22 U. TOR. L.J. 172 (1972).

15. Article 7 provides: "[w]atercourse States shall cooperate on the basis of sovereign equality, territorial integrity and mutual benefit in order to attain optimum utilization and adequate protection of an international watercourse." *ILC 1994 Draft Articles, supra* note 7, at art. 8.

16. U.N. CHARTER art. 33.

17. *Also see* the more detailed article on the work of the ILA by Charles Bourne in this issue of the Natural Resources Journal.

18. *See* Patricia Wouters, *Allocation of the Non-Navigational Uses of International Watercourses: Efforts at Codification and the Experience of Canada and the United States*, 30 CAN. Y.B. INT'L L. 43 (1992).

19. *See Report of the Fifty-Second Conference*, ILA, Helsinki Rules on the Uses of the Waters of International Rivers, at 484, 496-497 (1966) (articles IV and X); *Report of the Sixtieth Conference* ILA, Montreal Rules on Pollution, at 531, 535 (1982) (Article 1); *Report of the Sixty-Second Conference*, ILA, Seoul Complementary Rules, at 232 (1986) (Article 1).

20. Article 2 of the IDI's Athens Resolution on Pollution provides:

> In the exercise of their sovereign right to exploit their own resources pursuant to their own environmental policies, and without prejudice to their contractual obligations, States shall be under a duty to ensure that their activities or those conducted within their jurisdiction or under their control cause no pollution in the waters of international rivers and lakes

A crucial question thus arises: What rule determines the legitimacy of international watercourse use where there are insufficient resources to support new water-related develop-ments?[22] The issue is a complex one, both in water quantity and quality problems. When is a State permitted to use the waters of international watercourse for hydro-electric power generation? Is foreseeable pollution of international waters ever allowed? The IDI, ILA and ILC each provide different solutions to these questions.[23]

B. The Work of the International Law Commission

1. Introduction

Following more than two decades of work on the topic, the ILC produced in 1994 a complete project relating to the law governing the non-navigational uses of international water-courses.[24] The Draft Articles comprise thirty-three articles supplemented by a resolution on transboundary ground water. Part II of the Draft, which contains the general principles of watercourse law, includes Articles 5-10 of which Articles 5 and 7 set forth the cornerstone rules of the work.

2. The ILC's development of the principles of equitable utilization and no harm in international watercourse law

The principles of equitable utilization and no harm are found in Articles 5 and 7 of the ILC's 1994 Draft Articles. Article 5, unchanged from its 1991 version[25], provides:

> (1) Watercourse States shall in their respective territories utilize an international watercourse in an equitable and reasonable manner. In particular, an international watercourse shall be used and developed by watercourse States with a view to attaining

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beyond their boundaries.

See Athens Res., 1979 ANNUAIRE DE L'INSTITUT DE DROIT INTERNATIONAL 196.

21. Article 3 of the IDI's Salzburg Resolution provides: "If the States are in disagreement over the scope of their rights of utilization, settlement will take place on the basis of equity, taking particular account of their respective needs, as well as of other pertinent circumstances." *See* IDI Salzburg Res., 1961 ANNUAIRE DE L'INSTITUT DE DROIT INTERNATIONAL 381.

22. *See* McCaffrey, *Current Developments*, *supra* note 7, at 399-401; *see also* Stephen McCaffrey, *The Law of International Watercourses: Some Recent Developments and Unanswered Questions*, 17 DENV. J. INT'L L. & POL'Y 505 (1989).

23. *See* Wouters, *supra* note 18, at 46-52.

24. *See* McCaffrey, *Current Developments*, *supra* note 7, at 395-99.

25. ILC Draft Articles and Commentaries on the Law of the Non-Navigational Uses of International Watercourses, adopted on First Reading, U.N. GAOR, 43rd Sess., at 1, U.N. Doc. A/CN.4/L.463/Add.4 (1991) [hereinafter *ILC 1991 Draft Articles*].

> optimum utilization thereof and benefits therefrom consistent with adequate protection of the watercourse.
> (2) Watercourse States shall participate in the use, development and protection of an international watercourse in an equitable and reasonable manner. Such participation includes both the right to utilize the watercourse and the duty to co-operate in the protection and development thereof, as provided in the present articles.[26]

Article 6 contains a non-exhaustive list of the relevant factors to consider in the assessment of an equitable and reasonable use. Notably, the provision does not include 'harm' or 'injury' as factors to be applied in this context.[27]

The principle of no harm, in Article 7 of the 1994 Draft, replaces the former "no-appreciable harm" rule contained in the 1991 Draft.[28] The revised provision reads:

> (1) 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.
> (2) Where, despite the exercise of due diligence, significant harm is caused to another watercourse State, the State whose use causes the harm shall, in the absence of agreement to such use, consult with the State suffering harm over:
>
> (a) the extent to which the use has proved equitable and reasonable taking into account the factors listed in Article 6;
> (b) the question of ad hoc adjustments to its utilization, designed to eliminate or mitigate any such harm caused, and, where appropriate, the question of compensation.[29]

Reconciliation of the rules contained in Articles 5 and 7 is not an

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26. *ILC 1994 Draft Articles, supra* note 7, at art. 5.

27. This is distinct from Article V of the ILA's Helsinki Rules which includes "substantial injury" as a factor to be considered in the assessment of an equitable utilization.

28. Article 7 provided: "Watercourse States shall utilize an international watercourse in such a way as not to cause appreciable harm to other watercourse States." *ILC 1991 Draft* Articles, *supra* note 25, at art. 7. The ILC's decision to adopt this provision as the primary rule of the entire Draft was controversial. *See* Charles Bourne, *Principles and Planned Measures*, 3 COL. J. INT'L ENV'L L. & POL'Y 65 (1992); Lucius Caflisch, *Sic Utere Tuo Ut Alienum Non Laedas: Règle Prioritaire ou Elément Servant à Mesurer le Droit de Participation Equitable et Raisonnable à l'Utilisation d'un Cours d'Eau International?*, *in* INTERNATIONALES RECHT AUF SEE UND BINNENGEWÄSSERN 27 (1992); Stephen McCaffrey, *The Evolution of the Law of International Watercourses*, 45 AUSTRIAN J. PUB. INT'L L. 87 (1993); Stephen McCaffrey, *The International Law Commission and Its Efforts to Codify the International Law of Waterways*, 67 ANNUAIRE SUISSE DE DROIT INTERNATIONAL 32 (1990).

29. *ILC 1994 Draft Articles, supra* note 7, at art. 7.

easy task. Is the legitimacy of a use determined by a balancing of the equities or the rule of due diligence not to cause significant harm? The ILC's attempt to clarify this issue in its Commentary to Article 7 only confounds the issue.

The Commentary to Article 7, revised also in its final stages,[30] illustrates the difficulty the Commission had in trying to balance the substantive rules of the Draft.[31] The Commentary begins with the explanation that Article 7 "is setting forth a process aimed at avoiding significant harm as far as possible while reaching an equitable result in concrete cases."[32] In certain cases, the "'equitable and reasonable utilization' of an international watercourse may still involve significant harm to another watercourse State"[33] and "the principle of equitable utilization remains the guiding criterion in balancing the interests at stake."[34] Despite this introductory part dedicated to the role of the principle of equitable utilization, the Commentary continues, somewhat paradoxically, by asserting that the obligation contained in Article 7 "sets the threshold for lawful States activity."[35] The normative content of the rules is explained in the Commentary:

> A watercourse State can be deemed to have violated its due diligence obligation only if it knew or ought to have known that the particular use of an international watercourse would cause significant harm to other watercourse States.[36]

It is clear from the foregoing that qualification of a use as an equitable and reasonable one is insufficient to legitimize proceeding with the development. Under the ILC's rules, a State may develop a use only where it knows or ought to know that it would not cause significant harm to other states. This is the test to be met under Article 7. In this light, the due-diligence-not- to-cause-significant-harm rule is, in effect, an obligation not to cause significant harm and remains the governing rule of the entire Draft.[37] This position is supported by the second paragraph of Article 7

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30. *See* U.N. Doc. A/CN.4.L.493 at 43-52 (1994).

31. *See also ILC 1994 Draft Articles, supra* note 7, at commentary to art. 7 ¶¶ 22, 23 where the divergent views of the Commission's member over Article 7 is recorded.

32. *ILC 1994 Draft Articles, supra* note 7, at commentary to art. 7 ¶ 1.

33. *Id.* at commentary to art. 7 ¶ 2.

34. *Id.*

35. *Id.* at commentary to art. 7 ¶ 4.

36. *Id.* at commentary to ¶ 5. On the notion of due diligence, see R. Pisillo-Mazzeschi, *The Due Diligence Rule and the Nature of the International Responsibility of States*, 35 GERM. Y.I.L. 9 (1992); P.M. Dupuy, *Due Diligence in the International Law of Liability, in* OECD, LEGAL ASPECTS OF TRANSFRONTIER POLLUTION 369 (1977).

37. Professor McCaffrey, former Special Rapporteur on the topic, has observed, "The final version of the draft does not reverse the primacy of the no-harm rule but softens the regime . . ."; see McCaffrey, *Current Developments, supra* note 7, at 399.

which reduces the principle of equitable utilization to a mere factor to be considered in consultations where significant harm has occurred.[38]

The primacy of the no significant harm rule is reinforced in Articles 10 and 21 of the Draft. The former provision gives special weight to existing uses where "vital human needs" are involved.[39] The Commentary to Article 10 describes this criterion as "an accentuated form" of the factor referred to in Article 6(1)(b) of the Draft.[40] The prescribed preferential treatment of any particular factor precludes a true application of the principle of equitable utilization and imposes a no harm approach aimed at protecting prior uses.

The ILC's position with respect to pollution harm is more stringent than the general rule in Article 7. Article 21 contains an absolute prohibition of pollution that "may cause significant harm."[41] This provision "encompasses all pollution, whether or not it results in 'significant harm' to other watercourse states within the meaning of Article 7."[42]

3. *Summary of the ILC's Substantive Rules Governing the Non-navigational Uses of International Watercourses*

Clearly, the ILC has maintained the no significant harm rule as the governing rule of watercourse law. The nuanced version of the rule now contained in Article 7 mitigates the harshness of its predecessor and moves it closer to the principle of equitable utilization.[43] It does not, however, reconcile entirely the conflicting substantive rules. The suggestion that the conflict between the two provisions is more apparent than real[44] overlooks

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38. *ILC 1994 Draft Articles, supra* note 7, at art. 7(2)(a).

39. Article 10 provides:

> 1. In the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses.
>
> 2. In the event of a conflict between the uses of an international watercourse, it shall be resolved with reference to the principles and factors set out in articles 5 to 7, *with special regard being given to the requirements of vital human needs.*

ILC 1994 Draft Articles, supra note 7, at art. 10 (emphasis added).

40. *Id.* at commentary to art. 10.

41. Article 21(2) provides:

> Watercourse states shall, individually or jointly, prevent, reduce and control pollution of an international watercourse that *may* cause significant harm to other watercourse States or to their environment, including harm to human health or safety, to the use of the waters for any beneficial purpose or to the living resources of the watercourse.

ILC 1994 Draft Articles, supra note 7, at art. 21(2) (emphasis added).

42. *Id.* at commentary to ¶ 1.

43. McCaffrey, *Current Developments, supra* note 7, at 399.

44. Jutta Brunnee & Stephen J. Toope, ENVIRONMENTAL SECURITY AND FRESHWATER RESOURCES: A CASE FOR INTERNATIONAL ECOSYSTEM LAW, 5 Y.B. INT'L E. LAW 41, 63 (1995).

a very important difference in the application of each rule. Whereas foreseeable significant harm might be justified under the principle of equitable utilization, it can never be permitted under the due diligence rule contained in Article 7. In the former case, significant harm can be dealt with prospectively by all states concerned. Under Article 7, however, significant harm can only be dealt with *post factum*, a situation less favorable to the victim State.

Under Article 7, where, despite the exercise of due diligence, significant harm occurs, states are required only to consult over whether the use was equitable and if the harm can be mitigated or compensated for.[45] It is not clear what result these consultations are to have on the status of the use. Also uncertain is the relationship between subparagraphs (a) and (b) of Article 7(2).[46] A more compelling question is the precise nature of the remedy offered the victim State under that provision.

III. INTERNATIONAL STATE PRACTICE

A. Introduction

This part of the article focuses on recent international agreements involving watercourses. State activity in this field is remarkable in three respects: in the number of agreements, in the content of those agreements, and in the particular states involved. This will become clear following the next part of the article which focuses on the use-allocation rules contained in each agreement.

B. Multilateral Agreements of a General Scope

Concluded in March 1992, the U.N. Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes[47] (Helsinki Convention) is the first multilateral treaty relating to watercourse uses since the relatively unsuccessful 1923 Geneva Convention Relating to the Development of Hydraulic Power Affecting more than One State (Geneva Convention).[48] Ratified by a mere eleven states, the Geneva

45. *ILC 1994 Draft Articles*, *supra* note 7, at art. 7(2)(a), (b).

46. Neither the article nor the commentary make clear what effect the determination that the subject use is equitable–or not equitable—will have on the legitimacy of the use being considered. Presumably, the relative equity of the use might be considered to be relevant to the question of ad hoc adjustments to the use or the issue of compensation as referred to in article 7(2)(b), or possibly in the case of dispute settlement under article 33 of the draft.

47. Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Mar. 17, 1992, 31 I.L.M. 1312 (1992) [hereinafter Helsinki Convention].

48. Geneva Convention Relating to the Development of Hydraulic Power Affecting more than One State, Dec. 9, 1923, 36 L.N.T.S. 76 (entered into force June 30, 1925).

Convention, though referred to in one international arbitration,[49] was of limited influence.[50]

The Helsinki Convention, which contains twenty-eight articles and four annexes, has had wide support.[51] The overall purpose of the treaty is to limit transboundary impact arising from the utilization of international waters. Under Article 2, the Parties are required to "take all appropriate measures to prevent, control and reduce any transboundary impact,"[52] which is defined broadly.[53]

To meet the goal of the convention, Parties are obliged "[t]o ensure that transboundary waters are used in a reasonable and equitable way, taking into particular account their transboundary character, in the case of activities which cause or are likely to cause transboundary impact."[54] "Riparian Parties," in particular, are required to conclude agreements[55] which provide for the establishment of joint bodies in order to meet their obligations under the convention.[56]

Parties are held to a "best efforts" standard throughout the Agreement. In Article 2, for example, Parties are required to "take all *appropriate* measures" in undertaking the obligations set forth [emphasis

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49. Lac Lanoux Arbitral Award, 12 R.I.A.A. 281 (1957). The tribunal examined the drafting history of the Geneva Convention in order to determine whether prior consent was required before a basin State could proceed with works.

50. *Report of the Secretary General, Legal Problems Relating to the Utilization and Use of International Rivers*, U.N. Doc. A/5409, [1974] 2 Y.B. INT'L. L. COMMISSION 33. *See also* P. Sevette, *Legal Aspects of Hydro-Electric Development of Rivers and Lakes of Common Interest*, U.N. Doc. E/ECE/136, at 153 (1952). The Convention appeared to influence Latin American states in their approach. *See* Bourne, *Duty to Consult*, *supra* note 14, at 213.

51. As of September 18, 1992 (the date until which the Convention was open for signature), there were 26 signatories (Albania, Austria, Belgium, Bulgaria, Denmark, Estonia, European Economic Community, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Russian Federation, Spain, Sweden, Switzerland, United Kingdom). *See* 31 I.L.M. 1599 (1992).

52. Helsinki Convention, *supra* note 47, at art. 2(1).

53. Under the Convention, "transboundary impact" means

> any significant adverse effect on the environment resulting from a change in the conditions of transboundary waters caused by a human activity, the physical origin of which is situated wholly or in part within an area under the jurisdiction of a Party, within an area under the jurisdiction of another Party. Such effects on the environment include effects on human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; they also include effects on the cultural heritage or socio-economic conditions resulting from alterations to those factors.

Id. at art. 1(2).

54. *Id.* at art. 2(2)(c).

55. *Id.* at art. 2(6), art. 9(1).

56. *Id.* at art. 9(2).

added].[57] Article 3 requires the Parties "as far as possible,"[58] and "where appropriate,"[59] to "prevent, control and reduce transboundary impact."[60] In Article 5, Parties agree to "endeavour to initiate" specific research programs to this end.[61] Annex I defines "best available technology"[62] and Annex II offers guidelines for developing "best environmental practices."[63]

The Agreement provides that the Parties are to be guided by "the precautionary principle," "the polluter-pays principle," and the requirement that "water resources shall be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs."[64] To meet these ends, the Parties agree to consult,[65] exchange information[66] and meet regularly.[67]

The conditional, yet detailed, measures set forth in the Convention, are undermined somewhat by Article 7 which leaves open the question of state responsibility. It provides only that "[t]he Parties shall support appropriate international efforts to elaborate rules, criteria and procedures in the field of responsibility and liability."[68]

C. Multilateral and Bilateral Treaties of Limited Scope

1. The Rivers Meuse and Scheldt (Belgium, France, and the Netherlands)

On April 26, 1994, in Charleville-Mezières, France, agreements on the protection of the rivers Meuse[69] and Scheldt[70] were signed by representatives from France, the Netherlands and Belgium.[71] The purpose of each of these documents is to "preserve and improve the quality of the [Meuse/Scheldt]."[72] This is to be accomplished through cooperation "in a neighborly spirit, keeping in mind their common interests as well as each

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57. *Id.* at art. 2.
58. *Id.* at art. 3(1).
59. *Id.* at art. 3(3).
60. *Id.* at art. 3(1).
61. *Id.* at art. 5.
62. *Id.* at Annex I.
63. *Id.* at Annex II.
64. *Id.* at art. 5(a), (b), (c).
65. *Id.* at art. 10.
66. *Id.* at art. 13.
67. *Id.* at art. 17.
68. *Id.* at art. 7.
69. Agreement on the Protection of the (River) Meuse, Apr. 26, 1994, Fr.-Neth.-Belg., 34 I.L.M. 854 (1995).
70. Agreement on the Protection of the (River) Scheldt, Apr. 26, 1994, Fr.-Neth.-Belg., 34 I.L.M. 859 (1995).
71. The federal constituents of Brussels-Capital and Wallonia signed on Apr. 26, 1994; Flanders signed each of the treaties in Antwerp on Jan. 17, 1995.
72. *Id.* at art. 2(1).

other's special interests."[73] An International Commission for the Protection of the [Meuse/Scheldt] Against Pollution is created in each convention to ensure the international cooperation committed to in Article 2.[74]

Regarding use of the waters of the respective basins, and in support of the general purpose of the convention, the Parties agree "to endeavour to take appropriate measures to achieve an integrated management of the [Meuse/Scheldt] drainage area"[75] and "to work together to ensure sustainable development for the [Meuse/Scheldt] and its drainage area."[76] Further, the Parties are required to "protect and, as far as possible, improve, by management measures and by the way in which the environment is used, the quality of the [Meuse/Scheldt's] aquatic ecosystem."[77] The principles of cooperation listed to guide the Parties in meeting their obligations include the precautionary principle,[78] the principle of preventive action,[79] the principle of containment and reduction of pollution at the source[80] and the polluter pays principle.[81]

Article 5 lists the tasks of the Commission. It is designated "as a forum for the exchange of information on projects which are subject to impact assessment and which have a significant transboundary impact on the [Meuse/Scheldt], without prejudice to the domestic legislation of the Contracting Parties."[82]

2. *The Danube River*[83] *(Austria, Bulgaria, Croatia, Germany, Hungary, Moldova, Romania, Slovak Republic, Ukraine, and the European Community)*

Nine of the Danube basin states signed the Convention on Cooperation for the Protection and Sustainable Use of the Danube River on October 29, 1994.[84] The Agreement comprises thirty-one articles and five

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73. *Id.*
74. *Id.* at art. 2(2).
75. *Id.* at art. 3(4).
76. *Id.* at art. 3(5).
77. *Id.* at art. 3(6).
78. *Id.* at art. 3(2)(a).
79. *Id.* at art. 3(2)(b).
80. *Id.* at art. 3(2)(c).
81. *Id.* at art. 3(2)(d).
82. *Id.* at art. 5(g).
83. *See also* Joanne Linnerooth-Bayer & Susan Murcott, *The Danube River Basin: International Cooperation for Sustainable Development*, 36 NAT. RESOURCES J. (forthcoming 1996).
84. Convention on Cooperation for the Protection and Sustainable Use of the Danube River, Bundesrat, Drucksache 268/95, Dec. 5, 1995, Czech. Rep.-Slov. [hereinafter Danube Convention]. The Governments of the Czech Republic and Slovenia informed the Conference of their willingness to sign the Convention as soon as possible. *Id.*, Final Act at 34 ¶ 9.

agreement.

Article 6 requires the Parties to prevent, mitigate and eliminate possible transboundary damage.[102] Article 7 provides for consultation to establish the annual quantities of water allocated to each State and tries to insure that these limits are not exceeded. [103] The Joint Committee on Transboundary Waters, created to supervise implementation of the accord,[104] convenes biannually and reports to each government.[105] The Committee is guided by Article 14 which provides that "[t]he Two Contracting Parties shall resolve the problems in the implementation of this Agreement through friendly consultation." The procedural foundation of the agreement is cooperation through consultation and a regular exchange of technical and scientific information.[106]

4. The Mekong River (Cambodia, Laos, Thailand and Vietnam)

On April 5, 1995, in Chiang Rai, Thailand, four of six riparians to the Mekong—Cambodia, Laos, Thailand, and Vietnam—entered into an Agreement on the Cooperation for the Sustainable Development of the Mekong.[107] The substantive rule governing water use is found in Article 5, entitled "Reasonable and Equitable Utilization," where the Parties agree "[t]o utilize the waters of the Mekong River Basin in a reasonable and equitable manner in their respective territories, pursuant to all relevant factors and circumstances" and as otherwise agreed to by the Parties.[108] This provision also details use of the tributaries and main stream of the Mekong during the wet and dry seasons.[109]

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102. *Id.* at art. 6. The agreement provides that "[t]he Two Contracting Parties shall take measures to prevent, mitigate and eliminate the possible damages to the quality, resources and natural dynamics of the transboundary waters and aquatic animals and plants caused by natural or human factors such as flood, ice run and industrial accident." *Id.*

103. *Id.* at art. 7. The agreement provides that "[t]he Two Contracting Parties will decide through consultation the annual consumption of the transboundary waters. They shall adopt effective measures to avoid activities on either side of the boundary that lead to the exceeding of the designated amount of annual water consumption." *Id.*

104. *Id.* at art. 10.

105. *Id.* at art. 11.

106. In fact, each of the provisions of the 15 article agreement contains a reference to either cooperation or consultation, apart from those articles which deal with definitions or practical details (relating to the Joint Committee or the coming into force of the accord).

107. Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin, Cambodia-Laos-Thail.-Vietnam, 34 I.L.M. 864 (1995) [hereinafter Mekong Agreement]. The two other riparians are Burma and China.

108. *See* Rules for Water Utilization and Inter-basin Diversion, a previous agreement between the Parties, referred to in Article 5 of the Mekong Agreement (on file with the author).

109. Mekong Agreement, *supra* note 107, at art. 5(A), (B). Article 6 provides details on the maintenance of the flows on the mainstream. *Id.* at art. 6.

Article 3 obliges the Parties "[t]o protect the environment, natural resources, aquatic life and conditions and ecological balance of the Mekong River Basin from pollution or other harmful effects resulting from any development plans and uses of water and related resources in the Basin."[110] Article 7 broadens this coverage, requiring the Parties "[t]o make every effort to avoid, minimize and mitigate harmful effects that might occur to the environment, especially the water quantity and quality, the aquatic (eco-system) conditions, and ecological balance of the system, from the development and use of the Mekong River Basin water resources or discharge of wasters and return flows."[111]

"Valid evidence" of "substantial damage" requires cessation of the harmful activity until the matter is dealt with under Article 8.[112] That provision is an innovative addition to traditional watercourse agreements. It sets forth the regime for state responsibility in the event of substantial damage:

> Where harmful effects cause substantial damage to one of more riparians from the use of and/or discharge to waters of the Mekong River by any riparian State, the party(ies) concerned shall determine all relative factors, the cause, extent of damage and responsibility for damages caused by that State in conformity with the principles of international law relating to state responsibility, and to address and resolve all issues, differences and disputes in an amicable and timely manner by peaceful means as provided in Articles 34 and 35 of this Agreement, and in conformity with the Charter of the United Nations.[113]

The broad cooperation provided for in the agreement[114] is tempered somewhat by Article 4 where the Parties agree "[t]o cooperate on the basis of sovereign equality and territorial integrity in the utilization and protection of the water resources of the Mekong River Basin."[115]

The remaining thirty-five provisions of the Agreement concern

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110. *Id.* at art. 3.
111. *Id.* at art. 5.
112. *Id.*
113. *Id.* at art. 8.
114. Article 1 of the Mekong Agreement provides:
> The parties agree: To cooperate in all fields of sustainable development, utilization, management and conservation of the water and related resources of the Mekong River Basin including, but not limited to irrigation, hydro-power, navigation, flood control, fisheries, timber floating, recreation and tourism, in a manner to optimize the multiple-use and mutual benefits of all riparians and to minimize the harmful effects that might result from natural occurrences and man-made activities.

Mekong Agreement, *supra* note 107, at art. 1.
115. *Id.* at art. 4.

Annexes, which form an integral part of the accord.[85]

Under Article 2, which contains the overall purpose of the treaty, the Parties agree to

> [S]trive at achieving the goals of a sustainable and equitable water management, including the conservation, improvement and the rational use of surface waters and ground water in the catchment area as far as possible; . . . make all efforts to control the hazards originating from accidents involving substances hazardous to water, floods and ice-hazards of the Danube; [and] . . . endeavour to contribute to reducing the pollution loads of the Black Sea from sources in the catchment area.[86]

To meet these goals, the Parties undertake to "cooperate on fundamental water management issues and take all appropriate legal, administrative and technical measures, . . . at least maintain and improve the current environmental and water quality conditions of the Danube . . . [and] prevent and reduce as far as possible adverse impacts and changes occurring or likely to be caused."[87] The "polluter pays principle and the precautionary principle" are the basis for the measures aimed at protecting the Danube.[88]

The International Commission, established under Part III, is to implement the "objectives and provisions" of the Convention,[89] including, *inter alia*, the cooperation detailed in Article 4 and Part II of the agreement.[90]

Despite this recent agreement, and a marked resistance by states to resort to third-party adjudication of their watercourse disputes, Hungary and Slovakia currently have a dispute concerning the Danube before the International Court of Justice (ICJ).[91] It is the first case in this field since the 1929 River Oder[92] and 1937 River Meuse disputes[93] and the Lake Lanoux

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85. Danube Convention, *supra* note 84, at art. 20.

86. *Id.* at art. 2(1).

87. *Id.* at art. 2(2).

88. *Id.* at art. 2(4).

89. *Id.* at art. 18.

90. *See, e.g., id.* at art. 5-17.

91. Special Agreement for the Submission to the International Court of Justice of the Difference Between Them Concerning the Gabcíkovo-Nagymaros Project, Apr. 7, 1993, Hung.-Slov., 32 I.L.M. 1293 (1993) (entered into force June 28, 1993) [hereinafter Special Agreement]; *see also* Erik Hoenderkamp, *The Danube: Damned or Dammed? The Dispute Between Hungary and Slovakia Concerning the Gavcíkovo-Nagymaros Project*, 8 LEIDEN J. INT'L LAW 287 (1995); G.M. Berrisch, *The Danube Dam Dispute under International Law*, 46 AUSTRIAN J. PUB. INT'L LAW 231 (1994); G. Englefield, *The International Boundary Between Hungary and Slovakia: The Nagymaros-Gabcikovo Dispute*, BOUNDARY AND SECURITY BULLETIN 15 (1993).

92. Case Relating to the Territorial Jurisdiction of the International Commission of the River Oder (U.K., Czech. Rep., Den., Fr., Ger., Swed., and Pol.), 1929 P.C.I.J. (ser. A) No. 23.

93. Diversion of Water from the River Meuse (Neth. v. Belg.), 1937 P.C.I.J. (ser. A/B)

arbitration.[94] Hungary and Slovakia are at odds over development of a hydro-electric project agreed to in the Treaty of Budapest.[95] Hungary unilaterally stopped work on the dam in 1989 and terminated the treaty in 1992. Slovakia reacted by diverting the Danube for use at a power plant on its territory, thereby implementing its "provisional solution."[96] Each side challenges the legality of the other's actions on various grounds.[97] The ICJ is expected to render a decision on the case within the next couple of years.

3. The Halaha River, Kerulen River, Bor Nor Lake and Bulgan River (China and Mongolia)

On April 29, 1994, the governments of the People's Republic of China and Mongolia signed an agreement relating to the protection and utilization of transboundary waters.[98] The agreement covers the Halaha River, Kerulen River, Bor Nor Lake, Bulgan River and those "lakes, rivers, streams and other waters that straddle or rest on the boundary line between the two countries."[99]

Under Article 2, cooperation is introduced "[f]or the purpose of protection and equitable and rational use of transboundary waters".[100] Article 4 extends this notion, and contains the central substantive rule of the convention. It provides:

> The Two Contracting Parties should jointly protect the ecological system of transboundary waters and develop and utilize transboundary waters in a way that should not be detrimental to the other side. Any development and utilization of transboundary waters should follow the principle of fairness and equability without impeding any reasonable use of transboundary waters.[101]

This is to be accomplished, *inter alia*, through the principles of cooperation set forth in Articles 2 and 3, and specific provisions for consultation and exchange of information contained elsewhere in the

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No. 70, at 3.

94. 12 R.I.A.A. 281 (1957). *See also* decisions discussed in *Report of the Secretary-General*, U.N. Doc. A/5409, Vol. 3, 472-88 (1963).

95. Convention Concerning the Construction and Operation of the Hydraulic Works of Bos/Gabcíkovo-Nagymaros, Sept. 16, 1977, Hung.-Yugo., 1109 U.N.T.S. 236 (1978); *see also* 32 I.L.M. 1247 (1993).

96. *See* Special Agreement, *supra* note 91.

97. *Id.* at ¶ 2 (noting the specific issues to be decided by the ICJ).

98. Agreement on the Protection and Utilization of Transboundary Waters, Apr. 29, 1994, P.R.C.-Mong. (entered into force Jan. 16, 1995) (English translation of agreement on file with author) [hereinafter Chinese-Mongolian Agreement].

99. *Id.* at art. 1.

100. *Id.* at art. 2.

101. *Id.* at art. 4(1).

details relating to the Mekong River Commission and the coming into force of the convention. Article 26 makes the Joint Committee, one of three permanent bodies of the Commission, responsible for elaborating the rules regarding water use and inter-basin diversions.[116]

5. *The Jordan River (Israel and Jordan)*

The Treaty of Peace entered into between Israel and Jordan on October 26, 1994[117] contains two articles and two annexes relating specifically to shared international waters.[118] Article 15[119] and Annex IV of the Treaty of Peace, which contain environmental measures, also apply to water resources generally.[120]

Article 6 of the Treaty recognizes that the "water resources are not sufficient to meet [the Parties'] needs" and commits them to deal with the "water issues along their entire boundary . . . in their totality." A recurrent theme in the agreement is the Parties agreement "to search for ways to alleviate water shortages and to cooperate."[121] Article 6(2) provides:

The Parties, recognizing the necessity to find a practical, just and

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116. *See* the Mekong Agreement, articles 26 ("Rules for Water Utilization and Inter-Basin Diversions") and 24 ("Functions of Joint Committee"). Mekong Agreement, *supra* note 107. The Council, comprised of Ministerial representatives, approves the submissions of the Joint Committee and is responsible for the overall policies and decisions relating to the development of the Mekong basin. *Id.* at arts. 18, 24, 26.

117. A copy of the agreement on file with author [hereinafter Israeli-Jordani Agreement].

118. For a discussion of the Jordan River basin, *see* Miriam R. Lowi, *Rivers of Conflict, Rivers of Peace*, 49 J. INT'L AFFAIRS 123 (1995).

119. The Israeli-Jordani Agreement states:

> The Parties will co-operate in matters relating to the environment, a sphere to which they attach great importance, including conservation of nature and prevention of pollution, as set forth in Annex IV. They will negotiate an agreement on the above, to be concluded not later than 6 months from the exchange of the instruments of ratification of this Treaty.

Israeli-Jordani Agreement, *supra* note 117, at art. 15.

120. For example, Part D of Annex IV provides that "Israel and Jordan agree to cooperate along the common boundaries in the following aspects: ecological rehabilitation of the Jordan River; environmental protection of water resources to ensure optimal water quality, at reasonable useable standards." Israeli-Jordani Agreement, *supra* note 117.

121. *Id.* at art. 6(4). The fields of cooperation include:

> (a) development of existing and new water resources, increasing the water availability, including cooperation on a regional basis as appropriate, and minimizing wastage of water resources through the chain of their uses;
> (b) prevention of contamination of water resources;
> (c) mutual assistance in the alleviation of water shortages;
> (d) transfer of information and joint research and development in water-related subjects, and review of the potentials for enhancement of water resources development and use.

Id.

> agreed solution to their water problems and with the view that the subject of water can form the basis for the advancement of co-operation between them, jointly undertake to ensure that the management and development of their water resources do not, in any way, harm the water resources of the other Party.[122]

Annex II comprises seven Articles containing thirty-two sub-paragraphs. Article 1 quantifies the water allocated to each country from the Yarmouk and Jordan rivers during the winter and summer seasons. There is a proviso that Israel's existing uses of the Jordan between its confluence with the Yarmouk and Tirat Zvi/Wadis Yabis be maintained. The agreement states that "Jordan is entitled to an annual quantity equivalent to that of Israel, provided, however, that Jordan's use will not harm the quantity or quality of the above Israeli uses."[123] Further, Israel's continued use of the groundwater located in Jordan is guaranteed.[124] Each State is responsible for the management of the "shared waters" of the Jordan and Yarmouk Rivers and the Arava/Araba groundwater located on its territory.[125] "Unauthorized withdrawals" of the other side's allocations are to be protected against by each of the Parties.[126]

There are repeated commitments on each side to cooperate in finding sources to increase Jordan's water supplies, including the construction of a diversion/storage dam on the Yarmouk, a system of water storage on the Jordan[127] and various desalinization projects.[128] Planned measures "which are likely to change the flow of either of the . . . rivers along their common boundary, or the quality of such flow" require six month notice to the other side.[129] The Joint Committee[130] oversees such matters "with the aim of preventing harm and mitigating adverse impacts."[131]

6. West Bank Water (Israel and the Palestinian Authority)

In an agreement between Israel and the Palestinian Authority, signed September 24, 1995, Israel pledged to increase the Palestinian's share

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122. *Id.* at art. 6(2).
123. *Id.* at Annex II, art. I(2)(c), .
124. *Id.* at art. IV.
125. *Id.* at art. III.
126. *Id.* at art. III(1), (6).
127. *Id.* at art. II(1), (2).
128. *Id.* at art. III(5).
129. *Id.* at art. V(2). Article V(1) holds that "artificial changes in or of the course of the Jordan and Yarmouk Rivers can only be made by mutual agreement." *Id.* at art. V(1).
130. The Joint Water Committee is established under Article VII.
131. *Id.* at art. V(2).

of West Bank water.[132] This is a difficult task as the resources are already over-utilized and have a history of uneven distribution in favor of the Israelis.[133] The Parties signaled the importance of water by committing, in their peace accord, to consider plans for the "equitable utilization of joint water resources."[134] It remains to be seen how this will be realized.[135]

D. An International Perspective

Absent from the above survey of recent watercourse agreements are examples from Africa, the Americas and India. This can be explained, in part, by the fact that most watercourses in these regions are covered by accords reached during the heyday of international 'river' contests some three decades ago. Subsequent activity in these regions is characterized by three general trends: (i) a general acceptance of the status quo of now outdated agreements;[136] (ii) the conclusion of ad hoc agreements relating to specific developments;[137] (iii) the conclusion of environmental accords

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132. INT'L HERALD TRIB., Sept. 25, 1995 at 1.

133. Sharif Elmusa, *Dividing Common Water Resources According to International Water Law: The Case of the Palestinian-Israeli Waters*, 35 NAT. RESOURCES J. 223, 226-232 (1995); *see also* Lowi, *supra* note 118, at 133.

134. Declaration of Principles on Interim Self-Government Arrangements, Sept. 13, 1993, Israel-P.L.O., *reprinted in* 32 I.L.M. 1525 (1993) *and in* 4 EUROPEAN J. INT'L L. 572 (1993).

135. *See* Joseph W. Dellapenna, *Designing the Legal Structures of Water Management Needed to Fulfill the Israeli-Palestinian Declaration of Principles*, 7 PALESTINE Y.B. INT'L L. 63 (1992/94); *see also* Elmusa, *supra* note 133, at 227-29; Lowi, *supra* note 118, at 133-134, where the author reviews the vastly different levels of water consumption by the Arabs and Israelis in the West Bank. Jewish settlers in the Jordan Valley consume approximately 368 liters of water per capita per day, compared with 88 liters for West Bank Arabs (100 liters of water per day is considered to be the minimum standard).

136. This has been the case in Africa and India. The Ganges River Agreement (17 I.L.M. 103 (1978)) was meant to be a temporary solution to an egregious battle between India and Bangladesh. The Indus River Agreement between India and Pakistan effective since 1960 (419 UNTS 126 (1962)) has not prevented India from unilateral stoppages of water flow to Pakistan's detriment. The regimes governing the Niger River basin (587 UNTS 9; 19 (1967)) and the Senegal basin (U.N. Treaties concerning the Utilization of International Watercourses for Other Purposes than Navigation: Africa, Natural Resources/Water Series No. 13, at 16) have become largely inoperative due to disagreements between certain riparians, a lack of funding and mismanagement. Ministry of Water Resources, Nigeria, *Interregional River and Lake Commissions of Which Nigeria is a Member, in* Proceedings of the U.N. Interregional Meeting of International River Organizations 368-75, U.N. Doc. ST/ESA/120, U.N. Sales No. E.82.II.A.17 (1983).

137. Examples here abound in the Americas. The United States and Mexico have used this approach to resolve a succession of problems over the Colorado River, which had been covered by the 1944 agreement between the two countries (T.S. No. 994, United Nations, Legislative Texts and Treaty Provisions, UN Doc. ST/LEG/SER.B/12, at 236). Canada and the United States have also concluded a number of agreements particular to certain watercourses, such as the Columbia River (*id.* at 232), Lake of the Woods (44 Stat. 2108; TIAS 6); the Great Lakes (TIAS 10798), etc., while all international watercourse issues had

which affect watercourse use.[138]

E. Summary Observations Regarding State Practice

The State practice surveyed above leads to the following observations:

1. States appear reluctant to conclude agreements containing rules covering water use generally. Particular problems are dealt with in the context of specific agreements, relating either to certain watercourses or precise issues.

2. The only agreements establishing rules for water use generally, the Chinese-Mongolian Agreement and the Mekong Treaty are based upon the principle of equitable utilization.[139]

3. The only agreement applying no significant harm as a substantive rule is the Israeli-Jordani Agreement, where the rule is used to protect existing uses.[140]

4. Each agreement provides for the equitable and reasonable use of the international waters covered by the accord.[141]

5. Each agreement incorporates a "best efforts" standard to limit adverse transboundary impact of water use.[142]

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been addressed by the 1909 Boundary Waters Treaty. In South America, the Rio de la Plata basin has a series of ad hoc and mostly bilateral agreements which deal with the development of the major rivers of the system despite the multilateral Treaty on the River Plate Basin of 1969 (8 I.L.M. 905 (1969).

138. *See, e.g.*, the Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambezi Rivèr System, 27 I.L.M. 1112 (1988) ("ZACPLAN"); Treaty for Amazonian Cooperation (17 I.L.M. 1045 (1978). For a discussion of African practice, *see also* Mutoy Mubiala, L'ÉVOLUTION DU DROIT DES COURS D'EAU INTERNATIONAUX À LA LUMIÈRE DE L'EXPÉRIENCE AFRICAINE, NOTAMMENT DANS LE BASSIN DU CONGO/ZAÏRE (1995). Canada, Mexico and the United States have recently established the North American Commission on Environmental Cooperation as part of implementation of the North America Free Trade Agreement. For more details, *see* Stephen Mumme, *The North American Commission for Environmental Cooperation and the United States-Mexico Border Region: The Case of Air and Water*, 9 TRANSBOUNDARY RESOURCES REP. 1 (1995).

139. Chinese-Mongolian Agreement, *supra* note 98, at art. 2; *see also* Chinese-Mongolian Agreement, *id.* at art. 4(1), which appears to balance the principles of equitable utilization and no significant harm but ends favoring the former rule. The last part of the provision reads: "without impeding any reasonable use of transboundary waters." Mekong Agreement, *supra* note 107, at art. 5.

140. Israeli-Jordani Agreement, *supra* note 117, at art. 1(2)(C), 3(1)(6), 4, 5(2), 6(2), Annex II.

141. Helsinki Convention, *supra* note 47, at art. 2(2)(c); Meuse and Scheldt Agreements, *supra* notes 69 and 70, at art. 2; Danube Convention *supra* note 84, at art. 2; Chinese-Mongolian Agreement, *supra* note 98, at arts. 2, 4(1); Mekong Agreement, supra note 107 at art. 5; Israeli-Jordani Agreement, *supra* note 117, at art. 6.

142. Helsinki Convention, *supra* note 47, at art. 2, 3; Meuse and Scheldt Agreements, *supra* notes 141, at art. 3; Danube Convention, *supra* note 84, at art. 2; Chinese-Mongolian

6. The 'European' agreements, which each address the issue of transboundary impact, describe conduct required to meet this goal, but do not define substantive rules governing water use.[143]

7. Each agreement provides for cooperation between the Parties[144] and the creation of an institutional framework to assist in this exercise.[145]

IV. THE FUTURE OF THE SUBSTANTIVE RULES GOVERNING INTERNATIONAL WATERCOURSES

The importance of the task ahead of the UN's Working Committee is highlighted by the number of yet unsettled watercourse regimes.[146] The obligations that states have agreed to in the watercourse agreements surveyed above are indicative of what may be acceptable in the field. It is unlikely that states will embrace a no significant harm approach to watercourse development, except in special cases where existing uses are to be protected.[147]

The ILC's Draft proposes that the due-diligence-not-to-cause-significant-harm rule govern watercourse use. This is problematic for three reasons: (i) it is inconsistent with state practice;[148] (ii) in the final analysis, it amounts to a no significant harm rule and as such suffers shortcomings similar to its predecessor;[149] (iii) it distorts the function of the due diligence rule by using it to define the legitimacy of a use, instead of having it perform its traditional role. Due diligence is a *standard*, not a *definition*, of lawful state activity.[150]

Agreement, *supra* note 98, at art. 6; Mekong Agreement, *supra* note 107, at art. 5; Israeli-Jordani Agreement, *supra* note 117, art. 6(2), Annex II art. III, IV, V(2).

143. Helsinki Convention, *supra* note 47, at art. 2; Meuse and Scheldt Agreements, *supra* note 69 & 70, at art. 3; Danube Convention, *supra* note 84, at art. 5.

144. Helsinki Convention, *supra* note 47, at art. 2(6), 9(1); Meuse and Scheldt Agreements, *supra* notes 69 and 70, at art. 3; Danube Convention, *supra* note 84, at art. 4, Part II; Chinese-Mongolian Agreement, *supra* note 98, at art. 2, 3, 5(1) (providing that the parties "may conduct cooperation"); Mekong Agreement, *supra* note 107, at art. 1; Israeli-Jordani Agreement, *supra* note 117, at art. 6(4), Annex II art. I(3), II and VI.

145. Helsinki Convention, *supra* note 47, at art. 9(2); Meuse and Scheldt Agreements, *supra* notes 69 and 70, at art. 2(2); Danube Convention, *supra* note 84, at art. 18; Chinese-Mongolian Agreement, *supra* note 98, at art. 10; Mekong Agreement, *supra* note 107, at Chapter IV; Israeli-Jordani Agreement, *supra* note 117, art. VII, Annex II.

146. These include watercourses in most regions of the world, such as, e.g., the Brahmaputra, the Ganges, the Jordan, the Nile, and the Tigris-Euphrates.

147. This has been, and likely will be, the case of the Nile. Egypt uses the lion's share of the Nile's waters and claims a vested right to such appropriations. Vidal, *supra* note 1.

148. *See* "observations," *supra* at 24.

149. *See* the Swiss Government's Response to the ILC's 1991 Draft Articles, UN Doc. A/CN.4/447, at 49-54 (1993); *see also* Wouters, *supra* note 48, at 83-86.

150. The origins of the notion of due diligence are found in the Alabama Claims Case, *in* 1 MOORE, INTERNATIONAL ARBITRATIONS 485 (1872); Treaty of Washington, May 8, 1871,

States recognize that most uses of international watercourses will result in some harm, perhaps even significant harm being caused to other watercourse states. This is permitted by states where: (i) the use is an equitable and reasonable one (a definitional question) and (ii) the harming State(s) undertakes its "best efforts" to limit the transboundary harm (a standard of behavior contingent upon the first condition). The ILC's Article 7 not only fails to implement this practice, but subverts it. The ILC's Special Rapporteurs Rosenstock,[151] McCaffrey[152] and Schwebel[153] each recommended that the principle of equitable utilization govern the substantive rules of the Draft Articles on watercourse law. Recent state practice supports this view.

As governments prepare their submissions for the UN, and the Committee of the Whole anticipates its work, they are encouraged to reconsider carefully the substantive rules contained in Part II of the ILC's Draft Articles. The successful elaboration of a framework convention relating to watercourse law will depend ultimately upon its acceptance by states. Rules for watercourse use based upon equity and reason promote a

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with Protocols of the Tribunal and Arbitral Award, 20 Martens Nouveau Receuil 698 (1875); *see also* Blomeyer-Bartenstein, *Due Diligence, in* 1 ENCYCLOPEDIA PUB. INT'L L. 1110 (R. Bernhardt ed., 1992).

151. The last Rapporteur to deal with watercourses, Robert Rosenstock, proposed that Article 7 be redrafted to read:

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

Robert Rosenstock, *First Report on the Law of the Non-Navigational Uses of International Watercourses*, U.N. Doc. A/CN.4/451 (emphasis added); *see also Second Report on the Law of the Non-Navigational Uses of International Watercourses*, U.N. Doc. A/CN.4/462

152. Rapporteur McCaffrey recommended that

> the "no appreciable harm" article be redrafted in such a way as to bring it into conformity with . . . the principle of equitable utilization . . . [T]he focus should be on the duty not to cause legal injury (by making a non-equitable use) rather than on the duty not to cause factual harm . . . [I]n the context of watercourses, suffering even significant harm may not infringe the rights of the harmed State if the harm is within the limits allowed by an equitable utilization.

Stephen McCaffrey, *Second Report on the Law of the Non-Navigational Uses of International Watercourses*, [1986] 2 Y.B. Int'l L. Comm'n 133, U.N. Doc. A/CN.4/399, U.N. Doc. A/CN.4/399/Add. 1, U.N. Doc. A/CN.4/399/2.

153. Stephen M. Schwebel, *Third Report on the Law of the Non-Navigational Uses of International Watercourses*, [1982] 2 Y.B. Int'l L. Comm'n 103, U.N. Doc. A/CN.4/348.

balanced approach to watercourse development which has been endorsed by state practice.