

Water, Human Rights and Sustainable Development (*)

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Introduction

Much attention has been given to the right to health as a human right and, as a means of implementing that entitlement, the right to food.⁽¹⁾ It cannot be said that the idea of such rights is entirely fanciful, or that it has only recently been conceived. The Universal Declaration of Human Rights,⁽²⁾ adopted by the United Nations General Assembly in 1948, provides in Article 25 that "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food. . . ."⁽³⁾

Yet surprisingly little attention has been given to the question whether, and to what extent, there is a right to water.⁽⁴⁾ Such a right could be envisaged as part and parcel of the right to food, the right to health or, most fundamentally, the right to life. A separate but related issue is whether and to what extent one country has a right to receive water in an international watercourse, from a co-riparian state, that is of sufficient quality and quantity to meet the minimum needs of its population,

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(1) See generally the essays in *The Right to Health as a Human Right*, Workshop, The Hague, 27-29 July 1978, *Hague Academy of International Law*, United Nations University, *Recueil des Cours 1978* (Sijthoff & Noordhoff 1979) (hereafter *The Right to Health*). With particular reference to the right to food, see, e.g., J. P. Dobbert, "Right to Food", in *The Right to Health, ibid.*, p. 184; and P. Alston & K. Tomasevski, *The Right to Food* (Martinus Nijhoff 1984).

(2) U.N.G.A. Res. 217 (III) (1948), adopted Dec. 10, 1948.

(3) *Ibid.*, art. 25, para. 1. Similar provisions in other human rights instruments are discussed in part II, below.

(4) Cf., however, P. -M. Dupuy, "Le Droit à la Santé et la Protection de l'Environnement," in *The Right to Health, supra* note 1, p. 340, especially section II.A.1, "Protection sanitaire des eaux douces," at p. 358, in which Professor Dupuy reviews what he characterizes as the three "generations" of conventions concerning protection of fresh water quality.

assuming such water would be otherwise available. While the former right is probably as yet imperfectly defined and established, the mere suggestion that the latter right may exist could be quite controversial. A third question is whether there is a right to the sustainable development of water resources, or at least the sustainability of those resources in a manner that meets basic human needs. There is both a domestic and an international dimension to this question, as well.

After surveying human patterns of water use, this paper will briefly examine whether a right to potable water may be inferred from other human rights, and will then explore preliminarily the issue of the right to receive water from a co-riparian country.

1. The Increasing Human Consumption of Fresh Water⁽⁵⁾

Humans have historically viewed nature from an anthropocentric standpoint. In keeping with this attitude, which retains its vigor in most parts of the world today, water has been regarded as a "resource", a means of producing wealth,⁽⁶⁾ whose principal purpose is to serve and be exploited by humanity. It is only very recently that the idea of "sustainable development"⁽⁷⁾ has come to the fore, and even the meaning of that concept is not universally agreed upon.⁽⁸⁾

Today humanity faces two overriding realities relating to fresh water: the use of water has increased dramatically during the past century and will continue to do so;⁽⁹⁾ and while the amount of water on earth remains finite and constant,⁽¹⁰⁾ the

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- (5) This section of the paper is adapted in part from McCaffrey, "The Evolution of the Law on Transboundary Rivers," paper presented at the Conference on Transboundary Waters in the Middle East: Prospects for Regional Cooperation, Bilkent University, Ankara, Turkey, 2-3 September 1991.
 - (6) *Randon House College Dictionary* (Rev. ed. 1975).
 - (7) See generally World Commission for Environment and Development (Brundtland Commission), *Our Common Future*, p. 43, et seq. (1987) (hereinafter WCED Report). "Sustainable development" has been defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." *Ibid.*
 - (8) See, e.g., the conclusions of the Beijing Symposium on International Environmental Law and Developing Countries, 12-14 August, 1991, which suggest that the emphasis should be placed on "development" rather than sustainability. The report of the Brundtland Commission, on the other hand, states that "the goals of economic and social development must be defined in terms of sustainability in all countries -- developed or developing, market-oriented or centrally planned." WCED Report, *supra* note 7, at p. 43.
 - (9) Global water consumption has increased from approximately 1,000 cubic kilometers in 1950 to roughly 3,500 cubic kilometers in 1980, and the rate of growth in consumption is itself increasing. La Rivière, "Threats to the World's Water," *Scientific American*, vol. 261, No. 3 Sept. 1989, p. 80, at p. 84 (graph). See also Linden, "The Last Drops," *Time*, Aug. 20, 1990, p. 58. For a discussion of the historical development of different uses of international rivers, see United Nations, Department of Economic and Social Affairs, *Integrated River Basin Development*,

number of human beings using and relying upon it continues to multiply at an alarming rate.⁽¹¹⁾ With regard to the first point, Professor H. A. Smith in his classic work *The Economic Uses of International Rivers* observed as early as 1931 that "[o]ne of the most noteworthy features of the last hundred years has been the immense increase in the use of water."⁽¹²⁾ Professor Smith attributed this increase to a combination of changes in personal habits⁽¹³⁾ and scientific progress, factors which continually interact: "The demand for water stimulates invention, and the facility of obtaining it is for ever increasing the demand."⁽¹⁴⁾ In light of this observation, it is perhaps not surprising that the most technologically sophisticated societies consume the most water on a per capita basis. The average person living in the United States, for example, consumes over 70 times as much water annually as the average resident of Ghana.⁽¹⁵⁾

Perhaps the most important factor contributing to the growing demand for fresh water today is the Earth's burgeoning population, which is increasingly concentrated in urban areas.⁽¹⁶⁾ Again, Professor Smith's words, written in the early part of this century, have even greater force today. Referring to the vastly increased consumption of water per capita in the world's growing cities, he noted that: "This immense consumption now compels nearly all great cities to draw their water supply from distant sources by complicated methods, and this development has had its own international consequences".⁽¹⁷⁾ Smith went on to observe that development pressures may tempt political units "to divert water which in its natural course

Report of a Panel of Experts, p. 2. U.N. Doc. E/3066/Rev. 1 (1970) (hereinafter *Integrated River Basin Development*).

- (10) "[T]he total supply [of water] neither grows nor diminishes. It is believed to be almost precisely the same now as it was 3 billion years ago." L. Leopold and K. Davis, *Water*, p. 33 (1966).
- (11) "Between 1950 and 1985, world population grew at an annual rate of 1.9 per cent, compared with 0.8 per cent in the half-century preceding 1950. Population growth is now concentrated in the developing regions of Asia, Africa, and Latin America, which accounted for 85 per cent of the increase of global population since 1950." WCED Report, *supra* note 7, at p. 99 (footnote omitted). The world population nearly doubled between 1950 (2.5 billion) and 1985 (4.8 billion). *Ibid.*, p. 100, Table 4.1.
- (12) H. A. Smith, *The Economic Uses of International Rivers*, p. 1 (1931).
- (13) "In the Middle Ages it was still possible for theologians to discuss how often a man might take a bath without being guilty of sin, and St. Benedict rather grudgingly concedes once a year (*vix in anno semel*) as a rule for the monks of his order." *Ibid.* (footnote omitted).
- (14) *Ibid.*
- (15) La Rivière, *supra* note 9, at p. 80.
- (16) See generally WCED Report, *supra* note 7, Chapter 9, "The Urban Challenge," pp. 235-258. The per cent of world population living in urban areas was 29.2 in 1950 and had skyrocketed to 41.0 by 1985. To cite one dramatic example, the population of Mexico City, which was 3.05 million in 1950, had increased to 16.0 million by 1982 and was projected by the United Nations to reach 26.3 million by the year 2000. *Ibid.*, at pp. 236-237.
- (17) Smith, *supra* note 12, at p. 2.

would flow into other states, and these latter regard such diversion as a violation of their rights".⁽¹⁸⁾

These changes in the nature of human society and the ways in which it uses water have, ironically, resulted both in increased consumption of fresh water, and -- because the world's population continues to expand exponentially while the quantity of water remains constant -- a steady and continuing reduction of the amount of fresh water on Earth per individual human being.⁽¹⁹⁾ These phenomena will lead inevitably to intensified competition for increasingly scarce water resources both *within* individual countries and *between* different countries. The former situation -- competition within countries -- raises the question, to what extent does a state have an obligation to provide its citizens with a supply of fresh water that is quantitatively and qualitatively sufficient for their health and sanitation needs. The latter situation -- competition between countries -- raises the question whether human rights law has any role to play in the resolution of interstate water problems. These problems are especially acute in arid regions where there is barely enough water for all, even if allocated in the most equitable and efficient way possible. (It is perhaps appropriate to note parenthetically here that in the field of environmental law we often tend to become preoccupied with questions of pollution and water *quality*. In many regions of the world the principal problem is one of insufficient water *quantity*. This problem deserves more attention.) The two questions outlined above are dealt with in the following sections.

II. The Right to Water as a Human Right

Water is essential to human, as well other forms of life. It is consumed directly and used for such basic needs as sanitation, cleansing and growing food. In fact, some three-quarters of the water consumed by humans is used in agriculture. Thus, water shortages or contamination can lead to famine, disease and even death. Tragically, these problems affect children disproportionately. The United Nations estimates that 40,000 children die each day. Many of these deaths are attributable to water-related problems. In a number of countries -- including Burma (Myanmar), Indonesia, Haiti and Kenya -- less than half the population has access to safe drinking water.⁽²⁰⁾ The situation is summed up by the United Nations Department of Technical Cooperation for Development as follows:

No resource is more basic than water. Water is essential for life, crucial for relieving poverty, hunger and disease and critical for economic

(18) *Ibid.*

(19) See generally Linden, "The Last Drops", *Time*, August 20, 1990, p. 58, reviewing situations in various countries, including Mexico, China, the former Soviet Union and the western United States, involving alarming shortages of water.

(20) *Ibid.*, p. 59 (graphic).

development. Despite enormous improvements over the past 15 years, hundreds of millions of men, women and children still do not have proper water for drinking and sanitation. Many remain unemployed because water resources cannot support agricultural or industrial growth. Water problems ultimately end up as 'people' problems.

As world population increases and development efforts expand, water needs can only increase. By the end of the century, global water use is expected to reach twice the level of 1980.⁽²¹⁾

But water shortages may result from factors other than natural phenomena and poor management. According to recent reports, for example, the Sudanese government is currently forcing some 400,000 squatters in Khartoum to relocate to camps with inadequate water supplies and other services. The United States government has characterized the relocation program as a virtual "death sentence" for many of those being resettled, most of whom are Christians and animists from the southern part of the country. The head of the U.S. Office of Foreign Disaster Assistance has accused the Sudanese government of offering relief to these persons on the condition that they convert to Islam, the state religion. The largest relocation camp holds more than 80,000 individuals yet was served by only one functioning well when a reporter visited the site.⁽²²⁾

A somewhat more subtle form of forced relocation, this time involving water deprivations, is alleged to be occurring in Israel and the Occupied Territories. In a case brought before the International Water Tribunal, for example, the complainants charge that at least half of some 70 Arab communities in the center and north of Israel are not recognized by the state and are not connected to national

(21) United Nations Department of Technical Co-operation for Development, *Water Resources*, p. 1 (UNDTCD brochure, undated). See also Principle No. 1 of the Guiding Principles adopted at the International Conference on Water and the Environment (ICWE), Dublin, Ireland, 26-31 January 1992: "Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment." The potential for conflict between development efforts and the needs of the local population is well illustrated by a "case" brought before the International Water Tribunal (IWT), a non-governmental organization having its seat at Amsterdam, The Netherlands. The IWT receives complaints concerning water use and establishes multidisciplinary "juries" of independent experts to pass on them and make recommendations for their resolution. The case involved a complaint by citizens' groups and a local municipality against Southern Peru Copper Corporation (SPCC), a U.S. company operating in Peru. The Tribunal's jury found, *inter alia*, that SPCC's use of water for copper production "seriously decreased the water resources previously available for the use of the local population for agricultural, grazing and household needs. This reverses the order of priority of water uses established by national laws and the Declaration of Amsterdam and has resulted in the displacement of people and in desertification of the area." International Water Tribunal, case of Asociación Civil "Labor", et al., v. Southern Peru Copper Corporation, USA, February 18, 1992. Amsterdam.

(22) The information in this paragraph is drawn from Miller, "Sudan Is Undeterred in Drive to Expel Squatters", *New York Times*, March 9, 1992, p. 3, col. 1.

drinking water networks. This situation is said to have led to serious health problems as well as environmental distress. The plaintiffs charge that Israel is using "water as a means to pressure certain Arab communities to evacuate their places of residence and relocate against their will."⁽²³⁾ In the West Bank, it has been reported that Israel is controlling supplies of groundwater -- the only significant water source -- by permitting its settlers to drill many deep wells while restricting the number and depth of Arab wells. This practice has caused Arab wells to dry up, forcing some Arabs to relocate.⁽²⁴⁾

The cases reviewed above illustrate how water can be used as a political weapon. Depriving individuals of fresh water can force them to relocate or, worse, can result in disease and death. Given the potential for its use by governments for improper purposes and, more fundamentally, its importance to human life and civilization, it is surprising that water is not mentioned at all in either of the 1966 Covenants⁽²⁵⁾ or in the Universal Declaration of Human Rights.⁽²⁶⁾ If there is a

(23) International Water Tribunal, case of the Galilee Society for Health Research and Services, et al., v. Government of Israel, complaint ("Case Document"), October, 1991. Concerning the International Water Tribunal, see note 21, *supra*.

(24) This situation is discussed in McCaffrey, "Water and International Politics," in P. Gleick, ed., *Global Water Resources: The Coming Crisis*, chapt. 8 (Oxford University Press, forthcoming 1992). See also National Public Radio, All Things Considered, series on water in the Middle East, December 3, 1981 (transcript).

(25) International Covenant on Economic, Social and Cultural Rights, opened for signature Dec. 19, 1966; entered into force Jan. 3, 1976. U.N.G.A. Res. 2200 (XXI), 21 U.N. GAOR, Supp. (No. 16) 49, U.N. Doc. A/6316 (1967), reprinted in 6 *I.L.M.* 360 (1967) (hereafter referred to as the E.S.C. Covenant). International Covenant on Civil and Political Rights, opened for signature Dec. 19, 1966; entered into force March 23, 1976. U.N.G.A. Res. 2200 (XXI), 21 U.N. GAOR, Supp. (No. 16) 52, U.N. Doc. A/6316 (1967), reprinted in 6 *I.L.M.* 368 (1967) (hereafter referred to as the C.P. Covenant).

(26) Water is, however, expressly mentioned in the newest human rights agreement of a universal character, the Convention on the Rights of the Child, adopted by the U.N. General Assembly, November 28, 1989, entered into force September 2, 1990. 28 *I.L.M.* 1448 (1989). Article 24(2)(c) of the Convention provides:

2. States Parties shall pursue full implementation of this right [i.e., the right of the child to the enjoyment of the highest attainable standard of health] and, in particular, shall take appropriate measures:

. . . .

c) to combat disease and malnutrition, including within the framework of primary health care, through, *inter alia*, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution;

Ibid. The Convention reflects a specific recognition of the particular importance of clean drinking water at the close of the twentieth century by the U.N. Commission on Human Rights, which prepared the original draft, the Economic and Social Council, and the U.N. General Assembly.

right to water under the basic instruments of international human rights law, therefore, it must be inferred from those instruments. As noted at the outset of this paper, article 25 of the Declaration proclaims that "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food" (27) There would seem to be little doubt that such a standard of living could not exist without an adequate supply of water suitable for drinking. Further, unless food were imported from other states, the "right" to an adequate standard of living contained in article 25 presumes an adequate supply of water to sustain agriculture to the extent necessary to feed the state's population.

As a General Assembly resolution, the Declaration is not binding per se; but at least its most fundamental provisions are generally thought either to have passed into customary international law, or to constitute an authoritative interpretation of relevant U.N. Charter provisions, or both. (28) However, while these provisions would include many so-called "liberty rights" -- i.e., "rights not to be treated in certain ways, or not to be interfered with" (29) - it is by no means clear that they would include what have been referred to as "welfare rights" -- i.e., "rights to be assured the provision of certain goods or services considered necessary for human well-being." (30) Article 25 of the Declaration would fall into the latter category, (31) thus casting doubt upon its status as a binding obligation. Even if it did constitute such an obligation, a right to water would still have to be inferred from that provision. That is, it would have to be established that a right to water is implicit in the right to an adequate standard of living to which the article explicitly refers. Even then, it is likely that states would not be required to guarantee such a right immediately, but would only have to implement it progressively, and to the extent

(27) See note 2, *supra*, and accompanying text.

(28) See, e.g., Henkin, "Human Rights," in *Encyclopedia of Public International Law*, Instalment 8, at 268 (R. Bernhardt ed. 1985); Humphrey, "The Universal Declaration of Human Rights: Its History, Impact and Juridical Character," in B. Ramcharan, ed., *Human Rights: Thirty Years After the Universal Declaration*, p. 21, at pp. 28-37 (1979); Sohn, "The New International Law: Protection of the Rights of Individuals Rather than States", 32 *Am. U. L. Rev.* p. 1, especially at pp. 16-17; and Th. Buergenthal, *International Human Rights in a Nutshell*, pp. 29-33 (St. Paul: West Publishing Co. 1988). See also American Law Institute, *Restatement (Third) of the Foreign Relations Law of the United States* § 702 (St. Paul: American Law Institute Publishers 1987), providing a non-exhaustive list of "those human rights whose status as customary law is generally accepted. . . ." *Ibid.*, Comment a.

(29) Okin, "Liberty and Welfare: Some Issues in Human Rights Theory," in *Human Rights, Nomos XXIII, Yearbook of the American Society for Political and Legal Philosophy*, Chapt. 12, p. 230, at p. 237 (New York and London: New York University Press 1981). According to Okin, liberty rights would generally include those contained in articles 3 to 20 of the Universal Declaration (possible exceptions being article 15(1) and article 8).

(30) *Ibid.* Okin states that these rights would consist of those contained in articles 22-27 of the Universal Declaration, with the possible exception of article 23(4).

(31) See the preceding footnote.

permitted by their resources. This would seem to follow from the fact that the right would be derived from the article of the Declaration whose counterpart is article 11 of the Economic, Social and Cultural Covenant (E.S.C. Covenant). While the Covenant on Civil and Political Rights (C.P. Covenant) "imposes an immediate obligation 'to respect and to ensure' the rights it proclaims,"⁽³²⁾ states parties to the E.S.C. Covenant need only implement the obligations under that agreement progressively.⁽³³⁾ Let us then turn to the C.P. Covenant to see whether it would support a right to water.

Article 6, paragraph 1, of the C.P. Covenant provides: "Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life."⁽³⁴⁾ Can this right be interpreted to embrace a right to water sufficient to sustain life? An affirmative answer to this question would place a significant obligation on states since, as noted above, the C.P. Covenant "imposes an immediate obligation 'to respect and to ensure' the rights it proclaims and to take whatever other measures are necessary to bring about that result."⁽³⁵⁾

Unfortunately, respected commentators have taken on the view that "[t]he human right to life per se . . . is a civil right, and it 'does not guarantee any person against death from famine or cold or lack of medical attention.'"⁽³⁶⁾ Rather, the right to life, according to this view, is a guarantee against the arbitrary deprivation of life by the state. Thus, "the mere toleration of malnutrition by a state will not be regarded as a violation of the human right to life, whereas purposeful denial of access to food, e.g., to a prisoner, is a different matter."⁽³⁷⁾ Thus, there is a line of thought according to which Article 6 does not require the state to take affirmative actions to ensure that its citizens have access to, e.g., adequate sustenance, but only obliges it to refrain from practicing or tolerating arbitrary deprivations of life. It would therefore be difficult to infer a right to water under this interpretation of Article 6.

The recent trend, however, seems to be toward a more expansive interpretation of Article 6. Most notably, the Human Rights Committee, established by the C.P. Covenant,⁽³⁸⁾ has declared that the right to life, as the most fundamental human right, may not be understood in a restrictive sense and, further, that its

(32) Buergenthal, *supra* note 28, at 37.

(33) E.S.C. Covenant, *supra* note 25, art. 2, para. 1.

(34) C.P. Covenant, *supra* note 25, art. 6, para. 1.

(35) T. Buergenthal, *supra* note 28, at 37.

(36) Dinstein, "The Right to Life, Physical Integrity, and Liberty," in L. Henkin, ed., *The International Bill of Rights*, Chapt. 5, p. 114, at p. 115 (New York: Columbia University Press 1981), quoting from N. Robinson, *The Universal Declaration of Human Rights*, p. 106 (1958).

(37) *Ibid.* at p. 116.

(38) See C.P. Covenant, *supra* note 25, art. 28.

protection requires that states adopt *positive* measures.⁽³⁹⁾ According to this view, a restrictive interpretation of the right to life is out of place in today's world. Rather, "under the right to life, in its modern and proper sense, not only is protection against any arbitrary deprivation of life upheld, but furthermore States are under the duty 'to pursue policies which are designed to ensure access to the means of survival' for all individuals and all peoples."⁽⁴⁰⁾ Thus, this modern view would interpret the right to life broadly, so that it "comprises the right of every human being not to be deprived of his life (*right to life*) and the right of every human being to have the appropriate means of subsistence and a decent standard of life (preservation of life, *right of living*)."⁽⁴¹⁾ Construed as including the right to appropriate means of subsistence, the right to life would clearly encompass the right to sanitary drinking water.

But even those adhering to a wider view of Article 6 seem to believe that it is not that the right to life *encompasses* the other rights (e.g., right to subsistence) but rather that the "safeguarding of this foremost right is an essential condition for the enjoyment of the entire range of civil and political, as well as economic, social and cultural rights."⁽⁴²⁾ While this interpretation undoubtedly strengthens the right to life, it does not bring the right to sustenance into the C.P. Covenant. This is unfortunate, in view of the softer nature of the obligations under the Covenant on Economic, Social and Cultural Rights.

Article 11 of that Covenant⁽⁴³⁾ provides in part that the Parties "recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement

(39) J. G. Van Aggelen, *Le rôle des organisations internationales dans la protection du droit à la vie*, p. 23 (Brussels, Story-Scientia 1986), cited in A. A. Cançado Trindade, "The Parallel Evolutions of International Human Rights Protection and of Environmental Protection and the Absence of Restrictions on the Exercise of Recognized Human Rights," 13 *Revista IIDH* 35, at 51 (1991). Dinstein himself recognizes that some members of the Human Rights Committee (established by the C.P. Covenant) have taken the position that Article 6 of the C.P. Covenant "requires the state to take positive measures to ensure the right to life, including steps to . . . protect the environment." Dinstein, *supra* note 36, at p. 116, citing U.N. Doc. CCPR/C/SR.222 para. 59 (1980).

(40) Cançado Trindade, *ibid.*, at p. 54, quoting B. G. Ramcharan, "The Right to Life," *Netherlands International Law Review* p. 301, at p. 302 (1983).

(41) *Ibid.*, at pp. 51-52 (emphasis in original).

(42) *Ibid.*, at p. 53, citing B. G. Ramcharan, *supra* note 40, at p. 301 (emphasis deleted). See also Cançado Trindade, *supra* note 34, at p. 52, quoting Przetacznik approvingly to the effect that "'the former [i.e., the right not to be deprived arbitrarily of life] belongs to the area of civil and political rights, the latter [i.e., the right to have the appropriate means of subsistence and a decent standard of life] to that of economic, social and cultural rights.'" *Ibid.*, quoting F. Przetacznik, "The Right to Life as a Basic Human Right," 9 *Revue des droits de l'homme/Human Rights Journal* p. 589, at p. 603 (1976).

(43) *Supra* note 25.

of living conditions."⁽⁴⁴⁾ It will be taken as self-evident for the purposes of this analysis that the right to an adequate standard of living defined in article 11 includes a supply of water that is at least adequate to meet basic human needs.⁽⁴⁵⁾

While the right proclaimed in article 11 is, potentially, quite far-reaching, a state party to the E.S.C. Covenant undertakes only "to take steps . . . to the maximum of its available resources, with a view to achieving progressively the full realization of the rights recognized in the [E.S.C.] Covenant. . . "⁽⁴⁶⁾ Thus, in contrast to the C.P. Covenant, there is no obligation on parties to the E.S.C. Covenant to implement its provisions immediately. This is only logical, in view of the vast disparity of resources and capabilities among existing and potential parties to this Covenant. The "rights" enumerated and defined in the E.S.C. Covenant are thus more in the nature of goals than of presently existing entitlements. Therefore, even if a right to water could be derived from the provisions of the E.S.C. Covenant -- which seems inevitable -- such a right would not necessarily have to be given immediate effect by the state concerned. But states parties to the E.S.C. Covenant would be under an obligation to work toward "achieving progressively the full realization" of the right, within the framework of the right to an adequate standard of living under article 11. This in itself would be an important and positive step forward.

If and to the extent that a right to water exists, what are the contents of that right? Certainly such a right would have to consist, at the very minimum, of a right to a sufficient supply of safe drinking water to sustain life. This right would entail a correlative obligation of the state to provide such a supply of water. Yet, as we have seen, the state's obligations under the E.S.C. Covenant are of a flexible nature, and are tied to available resources (financial as well as natural). The right to water, on the other hand, given the vital nature of the subject matter, would seem to be one which a state should be required to implement immediately, as is true of the rights under the C.P. Covenant. But as discussed above, it is not clear beyond all peradventure that a right to water is included within the right to life under the C.P. Covenant, since the latter right may be viewed to be exclusively a civil (liberty) right.

This result seems odd, to say the least. It causes one to wonder whether there are indeed sound reasons for the differences in the nature of the obligations undertaken by states parties under the two Covenants. And it reveals several defects in the differential approach to the obligations under the respective Covenants. Specifically, it is doubtful that the "immediate obligation"⁽⁴⁷⁾ to implement the

(44) *Ibid.*, art 11, para. (1).

(45) On the subject of basic needs, see generally Radwan, "The Right to Health Within the Framework of Basic Needs", in *The Right to Health*, *supra* note 1, at p. 166.

(46) *Ibid.*, art. 2(1).

(47) T. Buergenthal, *supra* note 28, at p. 37.

rights under the C.P. Covenant, stringent though it may be, is an absolute one. Rather, it is most probably an obligation to exercise due diligence, or best efforts, to bring about the specified result. This, in itself, softens the obligations of states under the C.P. Covenant to some extent. Just as the obligations under the C.P. Covenant may not be so exacting as they appear at first blush, at least some of those under the E.S.C. Covenant may be unduly soft. In particular, it seems questionable whether *all* of the rights under the E.S.C. Covenant are appropriate for "progressive implementation tied to available resources. . . ." ⁽⁴⁸⁾ It may well be that certain rights under that instrument either are not of a fundamental nature or would require the establishment of governmental infrastructures and the like to ensure their fulfillment. The latter point will be revisited presently. But other rights under the E.S.C. Covenant can hardly be described as being anything but fundamental. Indeed, article 11 itself refers to the "*fundamental* right of everyone to be free from hunger. . . ." This basic right can only be interpreted as a right to life-supporting sustenance, which would include potable water. Should these rights entail only "progressive" or "programmatic" ⁽⁴⁹⁾ obligations of states?

First, it would seem appropriate for states to be under an "immediate obligation" to implement rights involving what may be described as basic, or essential needs under the E.S.C. Covenant. This would not necessarily be unduly burdensome because such an obligation, like those under the C.P. Covenant, would be in the nature of a duty to exercise due diligence to bring about the specified result. "Due diligence" is itself an elastic standard that takes into account the capabilities of the state concerned. ⁽⁵⁰⁾

Second, and more fundamentally, one could well question the premise that the differential nature of the obligations under the two Covenants is justifiable on the ground that those under the C.P. Covenant are largely "negative" (i.e., they merely require the state to refrain from certain acts such as torture and arbitrary imprisonment) while those under the E.S.C. Covenant are "positive" (i.e., they require the state to take affirmative steps to implement the obligations in question. ⁽⁵¹⁾) This premise, on examination, seems illusory. Susan Okin has pointed

(48) *Ibid.*

(49) *Ibid.* at p. 45.

(50) That the rights under the E.S.C. Covenant depend upon the capabilities of the state in question, see Baier, "When Does the Right to Life Begin?," in *Human Rights*, *supra* note 29, p. 201, at pp. 219-220. See generally R. Pisillo Mazzeschi, "*Due Diligence*" e *Responsabilità internazionale degli Stati* (Milan: Dott. A. Giuffrè Editore 1989).

(51) One of the arguments frequently made against welfare rights as human rights is that they require positive state action, and indeed are very likely to enlarge the state's sphere of activity. Liberty rights, it is claimed, are, by and large, rights against the state, which are much easier to secure, since they require restraint on the part of the state. Okin, *supra* note 29, at p. 238. Such an explanation for the differential nature of the obligations under the two Covenants is given in T. Buergenthal, *supra* note 28, at pp. 44-45. But, as has been seen above, the Human Rights

out that "liberty rights" not only require the state to *refrain* from various types of activity, but also require "that the state *undertake* various types of activity, which are frequently complex and require much in the way of expenditure."⁽⁵²⁾ As examples, she cites the establishment of police forces, judicial systems and prisons, all of which "are necessary to maintain the highest achievable degree of security of these rights."⁽⁵³⁾ She points out that the protection these institutions provide "is enormously expensive and involves the maintenance of complex bureaucratic systems,"⁽⁵⁴⁾ yet even that protection is not always adequate.

Thus it is not entirely accurate to conceive of liberty rights as involving solely state restraint; like "welfare rights," securing them involves positive, and often resource-intensive, state action. The mere fact that the safeguarding of welfare rights may require positive state action is therefore no objection to requiring their observance -- especially when the implementation of such rights is not an absolute, immediate obligation, but need only be accomplished progressively, within the limits of available resources. Further, in view of the importance of rights under the E.S.C. Covenant concerning basic needs such as food and water, a strong argument can be made that the standard to be applied in determining whether governments have adequately safeguarded those rights approaches that under the C.P. Covenant. That is, due diligence would require according priority to rights under the E.S.C. Covenant that concerned basic needs.

A final question might be raised with regard to the nature of the obligations of a state in respect of human rights involving basic human needs. It is whether states have an obligation to develop in such a way as to ensure the "sustainability" of their fresh water resources so that they remain adequate to meet those needs. If states are under an obligation to exercise their best efforts to ensure an adequate supply of water to meet basic human needs, it would seem to follow that they would be obligated to manage their resources and development in such a way as to ensure that such a supply was sustained for the benefit of present and future generations. This would again be in the nature of a due diligence obligation, which would depend upon the capabilities of the state concerned.

The present section has focused upon states' internal water resources. But in fact much of the world's fresh water is contained in international drainage basins -- that is, watersheds that are shared by two or more states.⁽⁵⁵⁾ May a state riparian to

Committee has itself found that protection of the right to life requires that states adopt *positive* measures. See text at note 35, *supra*.

(52) *Ibid.*, at 240 (emphasis added).

(53) *Ibid.*

(54) *Ibid.*

(55) "[A] high proportion of the world's great basins are international. . . ." United Nations, Department of Economic and Social Affairs, *Integrated River Basin Development*, Report of a

an international watercourse fulfill the water needs of its population without regard to any adverse effects upon co-riparian states? Conversely, does a state riparian to an international watercourse have a right to receive water from a co-riparian that is qualitatively and quantitatively sufficient to meet the vital water needs of its population? These questions will be explored briefly in the following section.

III. The Right under International Law to Receive Water from A Co-Riparian Country

International drainage basins constitute some 47 percent of the Earth's land area, excluding Antarctica. They cover almost 60 percent of Africa and Latin America.⁽⁵⁶⁾ When these facts are coupled with the rapidly increasing use of fresh water discussed above, it becomes evident that the number and intensity of international disputes over fresh water are bound to rise dramatically in the years ahead. This sobering outlook imparts particular urgency to the questions framed at the end of the preceding section.

It should be stated at the outset that the present inquiry is merely another way of looking at questions that scholars and governments have grappled with for well over a century. An impressive array of treaties and other international instruments, mostly bilateral but some basin-wide,⁽⁵⁷⁾ regulates a number of aspects of our problems. But in many, if not most, of the areas of the world where international water problems are most acute, there is no agreement that addresses the specific questions relating to water shortage that are outlined above. This leaves the question whether there are any norms of general international law that deal with these issues. The most recent effort to codify the relevant principles of the law of international watercourses, the draft articles provisionally adopted by the International Law Commission in 1991,⁽⁵⁸⁾ at least provides an analytical framework for answering these questions.

Panel of Experts, U.N. Doc. E/3066/Rev.1 (1970), p. 8. See also the following section of the paper.

- (56) Biswas, "Water for Sustainable Development, A Global Perspective," *Development and Cooperation*, No. 5/1991, p. 17, at p. 20 (1991).
- (57) A systematic index prepared by the Food and Agriculture Organization of the United Nations (FAO) contains more than 2,000 instruments relating to international watercourses. FAO, *Systematic Index of International Water Resources Treaties, Declarations, Acts and Cases by Basin*, Legislative Study No. 15 (FAO, Rome 1978). A compilation of treaty provisions relating to non-navigational uses of international watercourses published by the United Nations in 1963 contains excerpts from 253 agreements. United Nations, *Legislative Texts and Treaty Provisions concerning the Utilization of International Rivers for Other Purposes than Navigation*, U. N. Doc. ST/LEG/SER.B.B/12 (United Nations: New York 1963).
- (58) Draft Articles on the Law of the Non-Navigational Uses of International Watercourses, *Report of the International Law Commission on the Work of its Forty-Third Session*, 46 UN GAOR Supp.

To bring the problem more sharply into focus, let us assume that state A, an upper riparian country on an international watercourse,⁽⁵⁹⁾ the River Aqua, decides to undertake a series of projects for the development of its water resources that will reduce the flow of water to its downstream co-riparian states, B and C. The projects consist of a series of dams and other works that will produce electricity and permit the irrigation of thousands of hectares of previously unused but fertile land. Evaporation from the reservoirs behind the dams and from irrigation will mean a significant reduction of the quantity of water delivered to states B and C.⁽⁶⁰⁾ As is generally the case throughout the world, those states, whose topographies are relatively flat, had developed their water resources centuries before state A, whose topography is relatively mountainous. States B and C, being arid, contribute very little water to the River Aqua, and claim that state A's projects will not leave them sufficient water to provide an adequate supply of drinking water for their populations, let alone to grow the food necessary to feed them. What legal arguments are available to states B and C, and can any of those arguments find a basis on international human rights law?

It would far exceed the scope of this brief paper to attempt detailed answers to these questions. Since the aspects of the problem involving traditional international water law have been dealt with elsewhere,⁽⁶¹⁾ the following preliminary discussion will concentrate on possible human rights implications. In particular, assuming that there is a human right to sufficient fresh water to sustain life, could it be argued that state A's project would violate this right of the nationals

(No. 10), U.N. Doc. A/46/10 (1991), chapt. III, p. 152, at pp. 161-172 (hereafter referred to as ILC Articles).

- (59) In the following discussion, I will use the expression "international watercourse" to mean not only a river crossing an international boundary, but also one which forms a boundary, a lake or an aquifer intersected by a boundary, as well as the other elements of any system of surface and underground waters, parts of which are located in more than one state. Cf. the International Law Commission's definitions of the expressions "watercourse" and "international watercourse" in article 2 of its draft articles on the Law of the Non-Navigational Uses of International Watercourses, ILC Articles, *ibid.* The term "co-riparian state" refers to a state in whose territory part of an international watercourse system is situated.
- (60) This hypothetical fact situation is adapted from Turkey's Greater Anatolia Project (GAP) on the Euphrates River and its potential effects on the downstream countries of Syria and Iraq. The project is discussed in McCaffrey, "Water and International Politics", in P. Gleick, ed., *Global Water Resources: The Coming Crisis*, chapt. 8 (Oxford University Press, forthcoming 1992). The discussion could also be applied to Israel's actions with regard to the Jordan River and groundwater in the occupied West Bank, also dealt with in *ibid.*
- (61) See, e.g., McCaffrey, *ibid.*; McCaffrey, "The Law of International Watercourses: Some Recent Developments and Unanswered Questions", 17 *Denver Journal of International Law and Policy* p. 505 (1989); and *id.*, "The International Law Commission and Its Efforts to Codify the International Law of Waterways", XLVII 1990, *Annuaire suisse de droit international* p 32, at pp. 48, et seq. (1991).

of states B and C? This might seem odd at first glance since human rights are generally guarantees against the conduct of an individual's own government.⁽⁶²⁾ Yet would not an argument emphasizing harm to humans be far more powerful, at the very least on moral grounds, than one based on traditional notions of transboundary harm to an abstraction, namely, a state?⁽⁶³⁾

Some support for such an approach may be found in article 10 of the ILC's draft rules. This article provides in part that where there is a conflict between uses of an international watercourse by different states, that conflict is to be resolved in accordance with the principle of equitable utilization and the obligation not to cause appreciable harm to co-riparian states. In resolving the conflict, however, "special regard [is to be] given to the requirements of vital human needs."⁽⁶⁴⁾ The Commission's commentary to that provision explains that, in resolving a conflict between uses by different states of an international watercourse,

"special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for the production of food in order to prevent starvation."⁽⁶⁵⁾

In our hypothetical fact situation, a conflict has arisen between the hydroelectric and agricultural uses of state A, on the one hand, and the domestic (specifically, drinking water) uses of states B and C, on the other. Article 10 would require that in allocating their shared water resources, the co-riparian states pay "special attention" to the drinking water needs of the populations of B and C. This, in effect, gives priority to the use of water for drinking over its use for power generation or agriculture, in the event that they come into conflict, as in our hypothetical case. The rationale for such a result would presumably be that human life takes priority over economic development. While this proposition may not be particularly controversial in the abstract, it could well be politically difficult for the government of state A to "sell" to its population.

(62) Certain analogies might, however, be drawn in this connection to international humanitarian law. While that field deals, *inter alia*, with the protection of civilian populations in other countries in time of armed conflict, the policies underlying its basic precepts are applicable here as well.

(63) This would be one argument in the traditional arsenal, and perhaps the simplest to support factually. It would be based upon the maxim, *sic utere tuo ut alienum non laedas*, a principle in effect codified by the International Law Commission in article 7 of its draft articles, "Obligation not to cause appreciable harm." ILC Articles, *supra* note 58, p. 164.

(64) ILC Articles, *supra* note 58, article 10, "Relationship between uses," p. 165.

(65) *Ibid.*, para. 4 of the commentary to article 10, at p. 180. The commentary also explains that the "vital human needs" criterion is "an accentuated form of the factor contained in article 6, paragraph 1 (b), which refers to the 'social and economic needs of the watercourse States concerned.'" *Ibid.* Article 6 sets forth an illustrative list of factors to be taken into account in arriving at an equitable allocation of the uses and benefits of an international watercourse system.

A more difficult question would be how the "vital human needs" requirement would apply to a situation in which the River Aqua did not deliver enough water to meet the drinking water needs of all of the three co-riparian states. For example, states A and B might have sufficient drinking water, but state C would not. It is submitted that the correct and only workable approach to problems of this sort is that of equitable apportionment.⁽⁶⁶⁾ Such an approach entails taking into consideration all relevant factors in arriving at an allocation of the uses and benefits of an international watercourse that is equitable under the circumstances.⁽⁶⁷⁾ Among those factors would be the ability of the respective states to save water through conservation, the availability of alternatives to existing consumptive uses, temporal priority of use, and the possibilities for compensation.⁽⁶⁸⁾ It may well be that in some cases the problem could not be solved by the co-riparian states alone, but would require the participation of third parties, such as donor countries or the multilateral development banks. But in any case, it seems clear that a state's "right" to receive water from a co-riparian state would find its limit in that country's obligation to use the international watercourse in an equitable and reasonable manner.

Conclusion

This paper has dealt with two separate but related ideas: the right to water as a human right; and the right of one state to receive water from a co-riparian state. These ideas, per se, have not been previously explored in the literature, so far as the author has been able to determine. The present analysis is therefore quite preliminary and tentative in nature. Certain points seem clear, however. One is that the right to food should be interpreted as the right to receive life-sustaining nourishment, or sustenance, so that it would include the right to potable drinking water sufficient to sustain life. A second point is that these rights are more akin to

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- (66) Problems of this kind cannot be resolved solely on the basis of the obligation not to cause appreciable harm to co-riparian states. Under that standard, state A would have to deny its population drinking water so as not to cause "harm" to states B and C by depriving them of drinking water. This seems patently unrealistic and unworkable. This problem is discussed in the sources cited in note 61, *supra*.
- (67) See article 5 of the ILC's articles, "Equitable and reasonable utilization and participation," and Article 6, "Factors relevant to equitable and reasonable utilization," ILC Articles, *supra* note 58, pp. 163-164.
- (68) The latter factor concerns whether a water-short state (e.g., state C) would be in a position to compensate another co-riparian (e.g., state A) for foregoing some discretionary water-related benefits (such as the production of food for export) in order that the first state could have sufficient drinking water for its population. In cases such as the instant one, where there is insufficient water to satisfy the needs of all states concerned, those states might contribute on an equitable basis to the construction and operation of conservation measures or desalination plants.

the right to life under the C.P. Covenant than to many of the "welfare" rights under the E.S.C. Covenant. That is, they concern vital human needs, and are thus even more fundamental even than the kinds of "due process" protections that are enshrined in the C. P. Covenant. A state's due diligence obligation to safeguard these rights to sustenance should therefore be interpreted to require the state to accord priority to ensuring that such vital human needs are met. On the international level, it seems equally clear that one state cannot deny a co-riparian state water necessary for the survival of the latter's population on the ground that the water is needed for the economic development of the former. The conditions on which an equitable allocation would be effected would vary from case to case, but certainly human lives and even health should take precedence over economic development.

The International Conference on Water and the Environment (ICWE), which met in Dublin in January of this year, adopted a set of four Guiding Principles, the first of which is as follows: "Fresh water is a finite and vulnerable resource, essential to sustain life, development and the environment."⁽⁶⁹⁾ The Dublin Statement on Water and Sustainable Development, adopted by the Conference, begins with the following sobering reminder:

Scarcity and misuse of freshwater pose a serious and growing threat to sustainable development and protection of the environment. Human health and welfare, food security, industrial development and the ecosystems on which they depend, are all at risk, unless water and land resources are managed more effectively in the present decade and beyond than they have been in the past.⁽⁷⁰⁾

One way to encourage governments to manage their water resources so as to ensure their sustainability may be through international human rights law. In any event, without serious efforts to improve the management of this precious resource, economic development cannot be sustained, and in many countries, human life will not long endure.

(69) International Conference on Water and the Environment (ICWE), Dublin, Ireland, 26-31 January 1992, Guiding Principles, Principle No. 1.

(70) *Ibid.*, The Dublin Statement on Water and Sustainable Development, first paragraph.