International Water Resources Association
Water International, Volume 25, Number 4, Pages 499–512, December 2000

Guest Editorial

National and International Water Law
Achieving Equitable and Sustainable Use of Water Resources

Patricia Wouters, *Director IWRA, University of Dundee, Dundee, Scotland, United Kingdom*

Introduction

The collection of the eight articles of this Leading Theme issue of *Water International* highlights the range of legal issues relevant to the effective management of freshwater. Presented at the annual Dundee Water Law and Policy Seminar (July 2000), the papers focus on the national and international water law and policy issues related to "Equitable and Sustainable Access to Water," the central theme of the interdisciplinary meeting. From a water lawyer's perspective, the key concerns in this context relate to the identification and enforcement of the rights and obligations that promote equitable and reasonable use of freshwater resources. This would include considering such matters as legal entitlement, allocation among users and uses, institutional mechanisms, and compliance measures in response to practical needs on the ground.

Water Law: The Context

What is the role of (water) law in responding to the world's growing water problems? An estimated 300 million people in 26 countries currently suffer from water scarcity. By 2050, approximately two-thirds of the world population, in some 66 countries, will face moderate to severe water shortage (World Water Forum, 2000). More than 1 billion people live without a daily supply of freshwater and more than twice that number has inadequate sanitation. Elements of the impending "global water crisis" is already with us, and complex problems loom ahead (Duda and El-Ashry, 2000). Managing scarce water resources for increasing demands in an equitable and sustainable manner will be one of the main challenges of the 21st century (Gleick, 2000).

Providing safe and clean water, especially in situations of scarcity, heightened demand, or uneven distribution of the resource, requires the combined and coordinated efforts of all water resource experts. While traditionally, engineers and hydrologists have played central roles in this task, it is now clear that economists, lawyers, political and social scientists, should also have a say in determining how competing interests over water might best be reconciled and beneficially managed. Interdisciplinary input and support is required for the primarily political decisions that determine allocation of the uses of this finite resource. This process has become increasingly complex, especially in light of current knowledge that suggests there exists a broader range of users and uses than previously accounted for, including, in particular, the ecological functions of water, in-stream uses, the global environment, and so forth, and, that there may be technological limits to meeting the ever-increasing demands of a growing human population (Lundqvist, 2000; Braga, 2000).

Thus, new paradigms must be created to address this serious problem. In this context, unique initiatives, such as HELP (Hydrology for the Environment, Life and Policy, a joint UNESCO/WHO endeavour), seek to develop a fresh approach to integrated catchment management through a demand-responsive policy and management-focused orientation. The innovation here is in forming, from the outset, a team of scientists, managers, lawyers, and policy-makers to address stakeholders' needs in real catchments.

Such an approach has been emerging globally, as evidenced in the application of evolving best practices from across disciplines aimed at meeting multifaceted problems related to water management (DFID, 2000). In March 2000, a record number of States endorsed the "Hague Declaration on Water Security," committing their governments to "provide water security in the 21st century," and asserting that "business as usual is not an option" (World Water Forum, 2000). This topic will be taken up at the 11th Stockholm Water Symposium under the theme, "Water Security for the 21st Century – Building Bridges Through Dialogue" (Stockholm Water Symposium, 2001). The program for that meeting includes input from a range of disciplines, including law. The World Commission on Dams Report (London, November 2000)

determined that the most effective means to "resolve the complex issues surrounding water, dams, and development" involved "recognizing rights and assessing risks" and instituting "decision-making processes based on the pursuit of negotiated outcomes, conducted in an open and transparent manner and inclusive of all legitimate actors involved in the issue" (WCD, 2000).

Despite this progressive shift in perspective, operationalizing interdisciplinary responses to the world's water problems remains rather ad hoc. For example, while the Hague Ministerial Declaration introduces the new concept of "water security," it omits any mention of law, and fails to refer to the 1997 UN Watercourses Convention (United Nations, 1997), the only global legal instrument that provides a comprehensive legal framework for the peaceful management of transboundary watercourses. Many of the water developments on the ground make no provision for including water lawyers in the conceptual stages of those projects.

Water Law: The Issues

In the context of equitable and sustainable management of water resources, the reference to "water law" raises two very different types of issues. The first relates to the role of water law in responding to the issue, generally. The second concerns the substantive content of the law that applies to the problem, in particular. What are the legal issues tied to achieving effective water resources management? In essence, there are four key points that must be addressed in any setting, national or international:

- Legal entitlement (What is the scope of the resource and who is entitled to use it?)
- Framework for allocation (Where all needs cannot be met, who is entitled to what quantity or quality of the resource?)
- Institutional mechanisms, including governance issues (Who is responsible for implementing or overseeing the implementation of the laws)
- Compliance verification, dispute avoidance and resolution (How are rights and obligations enforced?)

When lawyers are drafting legislation (at the national level) or treaties (at the international level) related to water use, each of these elements must be clearly proscribed in an instrument (or series of instruments) that addresses this range of issues. This task is impossible without the input from other water resource experts, including, but not limited to, hydrologists, scientists, managers, and policy-makers.

For example, on the matter of legal entitlement, two key issues must be considered and resolved. First, what is the scope of the resource, i.e., the physical, quantitative, and qualitative definition of the water resource to be utilized? Second, what is the scope of the demand for water use, i.e., who are the stakeholders and what are their resource-related needs? The conceptual approach to each of these problems requires two separate considerations: not only entitlements, but also obligations must be identified. In fact, a "rights-based" approach to water, from the legal perspective, contains both of these elements: recognizing that the right to utilize freshwater is tied to similar rights of other legitimate users.

Following the definitions needed to determine legal entitlement, some prognostic work may be required in order to identify the range of options for the optimal and beneficial use of the resource, especially where the demand for the resources exceeds the supply. Can a priority of uses be established? Where competing needs must be reconciled, what are the criteria for achieving that task? Are some uses more important than others? Science (in the broad sense of the term) and civil society must play important roles in arriving at an agreed framework for allocation, the cornerstone of any water resource decision-support system.

The next step in the process usually requires the creation of institutional mechanisms that ensure the established "rules of the game" are applied. How these organs are constituted, their mandate, and their scope of responsibility must be established. The range of options needs careful consideration, and should be tailored to meet the needs of the particular regime, without compromising the objectives of the water management scheme. Often, one duty of the institutional organs is to ensure compliance with the legal regime established. What substantive and procedural measures are best suited to monitor compliance with the rights and duties set forth? In most cases, measurable indicators are needed to assess the level of implementation of legal regimes. The design and operationalization of such a system calls for a coherent contribution from all water resources specialists — lawyers, scientists, managers, and policy-makers. In fact, compliance systems for water resources management is an area that could use further development, especially at the international level.

Water Law: National Dimension

The role of law in water resources management reflects its place in society in general. Water law is distinct from water policy. The overall objective of a water policy is to achieve the maximization of benefits deriving from available water resources and their rational management (Caponera, 1992). The main function of water law is, in principle, to promote and facilitate attaining policy objectives through a system of regulatory and institutional measures and mechanisms. In some instances, however, inadequate water legislation can be a serious obstacle to achieving effective water resources management at the national, basin or local levels.

Water law is not limited to water legislation (national water acts, by-laws, and other regulations), although it

usually constitutes its normative core. Relevant rules and provisions can be found in a variety of sources including: constitutional law, environmental law, land law, mining law, and also administrative, civil, and criminal legislation. In some countries, customary law can be as important as "written" law in regulating water resource-related activities, especially at the level of rural community. The fact that it is unwritten does not detract from its legitimacy.

Traditionally, the notions of "water laws" and "water rights" were considered in the same vein and referred mainly to those legal rules governing the relationship among water uses, primarily reflected in the riparian rights doctrine and the prior appropriation doctrine (Caponera, 1992). Modern water law, having retained some of the traditional elements, has now evolved into a more sophisticated and complex legal system that reflects the changing value of water resources in a modern society.

At the national level, the notions of legal entitlement and framework for allocation are closely connected and broadly referred to as "water rights," a common but often misused term. "Water rights" must be considered in a correlative sense: including entitlements and obligations, rights and duties. At the national level, water is generally the property of the State held in trust for its citizens, with overall responsibility for resource-related activities vested in the State. Enforcement of the relevant laws is also the ultimate responsibility of the State and generally carried out through administrative or judicial bodies. Most national water legislation incorporates policy goals in such terms as "optimum use," "effective and beneficial use," "common benefit," "rational use," and "sustainable development," and seeks to protect and effectively manage water supply (GWP, 1999).

Water law at the national level encompasses an increasingly broad range of issues, from formulating and endorsing general goals of the national water policy to prescribing specific pollution prevention and control measures. Water law has to address, *inter alia,* such questions as an inventory of water resources; definition and regulation of surface water, groundwater, and atmospheric water; ownership rights and priority among the various uses; procedures for acquiring and divesting water rights; the regulation of all "beneficial" uses, including domestic uses, municipal supply, irrigation, hydroelectric production, industrial and mining use, navigation, and so forth; control over the harmful effects of water, such as floods and drought; financial aspects of water utilization, including taxes, water rates and fees; the safeguarding of water quality and pollution control; the interdependence of water and other natural resources in their relation to the environment (Caponera, 1992). The importance of each of these issues varies across States.

In many parts of Africa, the former Soviet Union and China, there is a move underway to revise national water legislation. Apart from the important issues of legal entitlement and environmental standards, the role of the government in regulating water activities, valuing of water and charging for water, as well as private sector involvement in water supply and sanitation have to be addressed. Many States are now considering whether they should privatize their water industry and a number of issues arise in that context. In the United Kingdom, England, and Wales have privatized their water supply systems, while Scotland operates under a public system that is now under review. The recently proposed UK Water Bill, which purports to introduce time-limited abstraction licences, is criticized by Water UK, a water industry organization, as leading to water shortages and higher bills (The Times, 2001). In Australia, Chile, and parts of the Western USA, water markets have been created, with varying rates of success. Other national water law issues include the role of the regulator, the role of civil society and the creation of decision-support systems.

National water law is often rooted in cultural and religious traditions. In his contribution to this issue, Walid Abderrahman demonstrates how the principles of Muslim law, "*Shari'a*" have assisted with the improved management of the limited water resources in Saudi Arabia. Under Islamic law, "water is the common entitlement of all Muslims." The national government has the responsibility to secure basic needs, including water, for all its citizens. Problems of water shortage, arising from increased demand and limited supply, are dealt with by a system of governmental authorities that implement laws and policies based on Islamic principles, which establish a clear priority of uses. Abderrahman concludes that the Saudi experience demonstrates the responsive nature of Islamic law in addressing changing water demands at the national level.

In the United States, water rights are often enforced through the judicial system. There is a substantial body of case law that reflects a historical tradition of resolving inter-state conflicts over water. In this context, it is important to assess the extent to which individual rights to water are, and can be, protected in that process. George Sherk addresses this issue through an analysis of the relevant practice of the U.S. Supreme Court. He concludes that litigation is the least favourable mechanism to protect individuals' interests; conflicts between the States of the U.S.A. over water are disputes between the States, not between citizens. Individuals' rights might be better secured through negotiated settlements, a process that could more readily accommodate private parties' interests. This is an important observation for those seeking to devise mechanisms aimed at effectively protecting stakeholders' interests at the domestic level. For example, in the design of a dispute-avoidance or an enforcement policy aimed at protecting individual rights to water (i.e., ensuring access to water by the poor), legislation requiring negotiation or mediation as a pre-requisite to litigation might be considered.

Jerome Muys provides an update of the legal issues related to the management of the waters of the Colorado River, shared by seven U.S. States and Mexico. Early agreements allocating the quantity of water from the river system resulted in an over-allocation, causing shortfalls to many users, especially municipal water users in Southern California and Nevada. The complex "Law of the River" is reviewed in some detail, revealing the complicated nature of arrangements involving various governmental (federal, state, administrative, and judicial) authorities, which effectively prescribe all uses of the Colorado waters through a series of mechanisms (compacts, litigation, legislation). The recent U.S. Supreme Court decision in the *Winters* case, which recognized claims by Native American Indian tribes as prior rights on the Colorado, has complicated matters. Muys reviews some of the innovative approaches, including water transfers and water banking, to deal with the water shortage situation and concludes that the "Law of the River" can accommodate new challenges as they arise. The lessons from the Colorado may not be transferable to other river basins facing similar problems, however, since a certain level of financial resources and management flexibility is required.

Slavko Bogdanovic offers a comprehensive overview of the current status of the law governing the water resources of Bosnia and Herzegovina, a newly independent State following the 1996 Dayton-Paris agreement. His review covers national pre-war legislation as well as relevant international instruments, now important for the recently internationalised rivers of the region. To cope with some of the most pressing issues, the Federation of Bosnia and Herzegovina and the Republic of Srpska have undertaken a number of measures including the revision of national legislation and discussion of international relations, together with the creation of several institutional bodies. A joint Commission for Coordinating Water Management has been created to deal with all water management issues between the two governments, including international and national water law matters. To address those issues that could not be resolved by the Commission, the Memorandum established an Arbitral Court. Bogdanovic reviews the current water-related activities of each Government and the work of the Commission and the Court. At present, the legal regime governing all of the water resources in the region is in transition, with much work to be done at the national and international levels. Remarkably, the process is being influenced by the basic principles of international water law, including, primarily, the principle that shared transboundary waters should be used in an equitable and reasonable manner.

Water Law: International Dimension

A basic understanding of the fundamental concepts and principles of public international law is necessary in order to appreciate fully the issues that arise in the context of the law that governs international freshwater. For example, it is important to know that the rules of international law apply to sovereign States, and it is primarily for States themselves to ensure compliance with international commitments. There is no "supra" authority to enforce such rules, except in very specific circumstances, such as a threat to international peace and security, where the United Nations can take action. Enforcement of international law is a central issue of concern. However, the first step to that exercise must be identification of the applicable rules.

These rules are found in treaties, international custom, general principles of law, and the writings of "learned publicists" (Statute of the International Court of Justice). Treaties usually provide the most readily accessible source of law, but the other sources cannot be ignored. In the law governing the non-navigational uses of international watercourses, rules of customary law are particularly important and are often invoked by States in the absence of "written," or "codified," law. It is worth noting that not all treaties apply to all States. First, it must be ascertained whether the State concerned is a party to the treaty in question, and second, whether the latter has come into force and thus has become legally binding on the State. Finally, the normative content (requirements) of the treaty rules must be established in order to determine whether or not, a State's actions are in accordance with its treaty obligations.

The cornerstone principle of international water law – "equitable and reasonable utilization" – is a universally recognized rule of customary law, reflected in many international agreements, that governs States' behaviour with respect to international watercourses (McCaffrey, 1998; Caflisch, 1998). An important element of this principle is the requirement that watercourse States take all reasonable measures not to cause significant harm to other watercourse States. These substantive rules are supported by a set of procedural rules requiring, *inter alia*, prior notification, exchange of information and consultations concerning planned measures likely to adversely affect other watercourse States (Bourne, 1997).

The fundamental principles and procedural rules of water law are codified in the 1997 UN Watercourses Convention, a framework instrument that sets forth basic rights and obligations of watercourse States. Adopted by UN General Assembly Resolution on 21 May 1997, the Convention was supported by 104 States, with only three States (Burundi, China, and Turkey) voting against (Wouters, 2000a). The 1997 Convention requires 35 ratifications and has yet to come into force. At present, Finland, Syria, Hungary, Jordan, Lebanon, Norway, South Africa, and Sweden are parties to the Convention; Luxembourg, Paraguay, Portugal, Venezuela, Côte d'Ivoire, Germany, Namibia, Netherlands, Norway, Tunisia, and Yemen are signatories, who have yet to ratify it. The Convention has

been recognized by the International Court of Justice (ICJ, 1997) and by a significant number of States as an authoritative statement of the fundamental principles of international water law. Regardless of when, and whether the Convention comes into force, it will continue to play an important role in the management of international watercourses.

International rules are often employed to meet regional requirements. A unique model for the protection and management of transboundary waters has evolved under the auspices of the UN Economic Commission for Europe (UN/ECE). The long history of European transboundary cooperation has resulted in a sophisticated legal system of water resources management, focusing primarily on limiting adverse transboundary impacts. Branko Bosnjakovic reviews the legal regime established under the 1992 Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes. The principal goal of the 1992 Helsinki Convention, which currently has 29 State parties, is to ensure the equitable and reasonable use of transboundary waters and limit transboundary pollution. The treaty objectives are to be achieved through a combination of national measures (legal, administrative, economic, financial, and technical) and multilateral arrangements, including joint activities, monitoring, exchange of information, etc. The 1992 Helsinki Convention, an "umbrella" treaty establishing a general framework for cooperation, has been supplemented by a number of basin-specific agreements and a recent Protocol on Water and Health (1999 London Protocol). The Parties to the Helsinki Convention are now developing a compliance verification strategy, including the development of monitoring systems (Wouters, 1999). The UN/ECE model provides one example of a legal framework that has evolved to respond to specific water resources problems in a regional context.

Most watercourse agreements do not provide for adequate compliance verification procedures. Patricia Jones considers this issue in the context of the US-Mexico boundary waters regime, comparing it with the system of environmental rules and practices adopted under the North American Free Trade Agreement (NAFTA) and the North American Agreement on Environmental Cooperation (NAAEC). She asks whether compliance mechanisms are necessary in international watercourse agreements, and considers what role an individual can play in ensuring that a State meets its treaty obligations. The latter issue is particularly challenging and demonstrates the interface of international and national legal systems in matters involving compliance. Whether or not a State has complied with its international obligations is determined, in the first instance, with an assessment of its national practice, generally accomplished through self-reporting (Wouters, 1999). Jones' examination of the compliance practice regarding the environmental rules under NAFTA and NAAEC lead her to conclude that the US/Mexico transboundary watercourse regime could benefit from comparison.

Isabel Dendauw addresses the relatively new and intriguing problem of international trade in water in the context of the US-Canada transboundary relations. She considers whether the water and trade treaties that both Canada and the US are party to, permit or preclude the bulk export of water. In March 2000, the bilateral International Joint Commission issued a report recommending against the bulk transfer of water from the Great Lakes, setting forth strict criteria for the removal of water. The matter provoked a serious controversy in both Canada and the US, with the Council of Canadians fiercely opposing any bulk transfer of Canada's waters. Dendauw examines the provisions of the 1909 Boundary Waters Treaty, the NAFTA and the 1994 General Agreement on Tariffs and Trade (GATT), highlighting the contentious legal issues arising in this situation. It is obvious that trade in bulk water creates the potential for conflict between national conservation measures, on the one hand, and the multilateral regime of free trade, on the other. Dendauw concludes that it is difficult to forecast how a GATT or NAFTA dispute panel would rule on the matter of bulk water export, and suggests that such an activity might require, as a pre-requisite, joint co-operation between Canada and the U.S.A., including a shared coherent and principled approach to preserving the potentially affected ecosystem.

Much has been written about "sustainable development" in the legal context, as distinct from the "political concept for human, social, economic and environmental progress" (Brundtland, 1993). However, the precise normative content of this term – the respective rights and obligations of States flowing from that "rule" – is unclear. It has been suggested that a distinction should be made between "sustainable development as a concept, on the one hand, and legal principles and legal rules aiming at normative clarification and advancement with regard to certain aspects of the concept, on the other" (Malanczuk, 1995). One commentator claims that "the search for a meaningful legal content leads to the conclusion that 'empty' concepts are likely to satisfy needs of political convenience but do not satisfy the requirements of international law-making" (Lang, 1995). Alistair Rieu-Clarke examines the concept of sustainable development by analysing selected transboundary watercourse agreements, to determine whether, and to what extent, they define the legal parameters of sustainable development. He acknowledges the ambiguity of the normative substance of the concept, but identifies "core values" of sustainable development that have been incorporated into watercourse agreements as obligations. Rieu-Clarke suggests that watercourse States are prepared to endorse some of the constituent elements of sustainable development, but appear unwilling to embrace it *per se* as a legally binding obligation.

The Way Forward

Despite the abundance of literature on the topic of "integrated water resources management" (IWRM), achieving this goal is very difficult in practice (GWP, 2000b). It is clear, however, that water law must be considered an integral part of the process. At the national level, "legislation provides the basis for government intervention and action and establishes the context and framework for action by non-governmental entities; hence it is an important element within the enabling environment (for IWRM)" (GWP, 2000b). Often, the problem is not the lack of adequate legislation, but rather inadequate implementation and enforcement, usually resulting from a lack of political will, insufficient financial resources or professional expertise. Similar problems occur at the international level, where the situation is even more complicated, given the nature of the system within which the rules of international law operate.

Making water law more accessible to non-lawyers and turning it into an integral part of any water resource-related policy or project is certainly one way forward. At the national and international levels, this would mean involving water lawyers from the outset, including the conceptual and practical stages of water policy formulation and implementation. Equally, to make the rules of water law, both national and international, work properly, the input of the entire range of water specialists is required – the definition and effective implementation of legal regimes depends on scientific knowledge and expertise. Facilitating an interdisciplinary dialogue throughout the process could enhance the chances of achieving a coherent water resources strategy that ensures their equitable and sustainable use.

International law, as any normative system, provides the parameters for legitimate State activity. Critics that deride the principle of "equitable and reasonable utilization" as imprecise and incapable of application fail to understand that the real strength of this rule is its flexibility. By its very nature, this principle facilitates the reconciliation of competing interests within a framework adaptable to changing circumstances – economic, environmental, social, and other. One way forward would be to develop a methodology to operationalize this principle, possibly in the form of guidelines or a checklist that States could use to compile and assess the information necessary to identify their entitlements, obligations, needs and other relevant factors related to their shared transboundary waters. This task will require the concerted actions of an interdisciplinary team of experts.

Rules of international law, properly drafted and implemented, provide a solid foundation for the peaceful management of transboundary water resources. Critics of the 1997 UN Watercourses Convention ignore one important thing. The opportunity for unilateral development and power politics is always present where the substantive rules and procedural requirements, such as equitable use, prior notification of planned measures, exchange of information, and dispute avoidance mechanisms, are missing. The former serve to level the playing field, while the latter provide predictable rules of the game. The absence of a coherent and balanced legal framework for the management of international water resources increases the likelihood of inequities and adverse consequences, leading, in the worst-case scenario, to serious international conflicts over water.

The legal issues, national and international, arising from the policy objective of achieving equitable and sustainable use of freshwater should be considered as an integral part of the entire water management process. Effective water resources policy, that meets the changing and increasing demands of the world's growing population, requires a methodology capable of reconciling, in an ongoing manner, competing interests. A legal framework, supported by interdisciplinary expertise, is a fundamental element of this endeavour.

Acknowledgements

I would like to thank Raffaele Mancini, Patricia Jones, and Ranji Dhillon, students of the postgraduate Water Law and Policy Programme, University of Dundee for their assistance with this collection. Thanks also to the Executive Director of IWRA, Ben Dziegielewski and the staff of *Water International* for their diligence in finalizing the product efficiently and in good time, despite some unforeseen delays. And finally, my sincere thanks to the contributors of this collection and each of the participants that attended "Dundee Water 2000: Equitable and Sustainable Access to Water" and contributed to the development of the water law discourse. The next Dundee water law seminar, "Globalization and Water Management: The Changing Value of Water," will focus on water law, policy and related interdisciplinary issues (6-10 August, 2001, Dundee, contact Ranji Dhillon, e-mail: r.h.o.s.dhillon@dundee.ac.uk).

About the Author

Dr. Patricia Wouters, Director, Water Law and Policy Programme, Department of Law, University of Dundee, Scotland is series editor of the Kluwer Book Series," International and National Water Law and Policy" and convenes annually an international conference on current water law and policy issues in Dundee, Scotland. Her research interests include national and international water law issues, including topics related to state responsibility, interstate dispute avoidance and resolution; compliance regimes; water as a tradeable

modity. Dr. Wouters has advised national governments and international organisations and the private sector on matters related to water law and policy. She has recently been elected to the Board of Directors of the IWRA; is Secretary and Assistant Rapporteur of the Water Resources Committee of the International Law Association and has been appointed to the Water Resources Advisory Board of Suez-Lyonnaise des Eaux. Email: p.k.wouters@dundee.ac.uk.

Discussions open until June 30, 2001.

References

Bourne, C. 1997. "Procedure in the Development of International Drainage Basins: Notice and Exchange of Information." "Procedure in the Development of International Drainage Basins: the Duty to Consult and to Negotiate". P. Wouters, ed. *International Water Law. Selected Writings of Professor Charles B. Bourne*. The Hague, The Netherlands: Kluwer Law International.

Braga, B.P.F. 2000. "The Management of Urban Water Conflicts in the Metropolitan Region of Sao Paolo." *Water International* 25, No. 2: 208–213.

Brundtland, G.H. 1993. "The Environment, Security and Development." *SIPRI-Yearbook.*

Caflisch, L. 1998. "Regulation and Uses of International Watercourses." World Bank Technical Paper No. 414. *International Watercourses: Enhancing Cooperation and Managing Conflict.* S.M.A. Salman, ed. Washington,DC, USA: The World Bank.

Caponera, D.A. 1992. *Principles of Water Law and Administration*. Rotterdam, The Netherlands: A.A. Balkema.

International Court of Justice. 1997. Case Concerning the Gabcíkovo-Nagymaros Project (Hungary v. Slovakia), General List No. 92, (Judgment of 25 September). (1997 ICJ Danube case).

DFID (Department for International Development. 2000. *Strategies for Achieving the International Development Targets: Addressing the Water Crisis – Healthier and More Productive Lives for Poor People*. London, United Kingdom: DFID.

Duda, A.M. and M.T. El-Ashry. 2000. "Addressing the Global Water and Environment Crises through Integrated Approaches to the Management of Land, Water and Ecological Resources." *Water International* 25, No. 1: 115–126.

Gleick, P. H. 2000. "The Changing Water Paradigm: A Look at Twenty-first Century Water Resources Development." *Water International* 25, No. 1: 127–138.

GWP (Global Water Partnership). 1999. "The Dublin Principles for Water as Reflected in a Comparative Assessment of Institutional and Legal Arrangements for Integrated Water Resources Management." (M. Solanes and F. Gonzalez-Villarreal). Technical Assistance Committee Background Paper No. 3. (TAC No. 3).

GWP (Global Water Partnership). 2000b. "Integrated Water Resources Management." Technical Assistance Committee Background Paper No. 4 (TAC No. 4).

Lang, W. 1995. "How to Manage Sustainable Development." In G. Ginther et al. *Sustainable Development and Good Governance*. Dordrecht, The Netherlands: Martinus Nijhoff.

Lundqvist, J. 2000. "Rules and Roles in Water Policy and Management." *Water International* 25, No. 2: 194–201.

Malanczuk, P.1995. "Sustainable Development: Some Critical Thoughts in the Light of the Rio Conference." K. Ginther et al., eds. *Sustainable Development and Good Governance.* Dordrecht, The Netherlands: Martinus Nijhoff.

McCaffrey, S. 1998. "The UN Convention on the Law of the Non-Navigational Uses of International Watercourses: Prospects and Pitfalls." World Bank Technical Paper No. 414. 1998. *International Watercourses: Enhancing Cooperation and Managing Conflict.* (S.M.A. Salman, ed.). Washington, DC, USA: The World Bank.

Stockholm Water Symposium, "Water Security for the 21st Century – Building Bridges Through Dialogue." First Announcement Call for Papers (2001).

The Times (A. Jameson) 2001. "Water UK Fears New Bill Could Lead to Shortages." The Times. 8 January 2001: 23.

United Nations. 1997. Convention on the Law of the Non-Navigational Uses of International Watercourses, 24 April 1997, 36 International Legal Materials: 700 (not yet in force), reprinted at <http://www.dundee.ac.uk/cepmlp/water/html/documents.htm#1.

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

World Water Forum. 2000. "Second World Water Forum: From Vision to Action." 17-22 March 2000. The Hague, The Netherlands. http://www.worldwaterforum.org.

Wouters, P. 2000a. "The Legal Response to Water Conflicts: The UN Watercourses Convention and Beyond." *German Yearbook of International Law* 42: 293–336. (Wouters, GYIL).

Wouters, P. 2000b. "The Relevance and Role of Water Law in the Sustainable Development of Freshwater: From 'Hydrosovereignty' to 'Hydrosolidarity'." *Water International* 25, No. 2: 202–207.

Wouters, P. 1999. Expert's Report on Compliance with International Watercourse Agreements. UN Doc. MP. WAT 2000/17 December 1999. (Wouters, Compliance Report).