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I. World Water Day 2009 calls attention to the waters that cross borders and link us together¹

The United Nations General Assembly adopted resolution A/RES/47/193 of 22 December 1992 by which 22 March of each year was declared World Water Day, to be observed starting in 1993, in conformity with the recommendations of the United Nations Conference on Environment and Development (UNCED) (Rio de Janeiro, Brazil, 3-14 June 1992), contained in Chapter 18 (“Protection of the quality and supply of freshwater resources: application of integrated approaches to the development, management and use of water resources”) of Agenda 21. The Day is a means of focusing attention on the importance of freshwater and advocating for the sustainable management of freshwater resources. Each year, World Water Day highlights a specific aspect of freshwater.

In 2009, the theme for World Water Day is “Shared Water - Shared Opportunities”. Special focus is placed on transboundary waters. Nurturing the opportunities for cooperation in transboundary water management can help build mutual respect, understanding and trust among countries and promote peace, security and sustainable economic growth. There are 263 transboundary river basins in the world. Over 45 percent of the land surface is covered by river basins that are shared by more than one country. Over 75 percent of all countries, 145 in total, have within their boundaries shared river basins. And 33 nations have over 95 percent of their territory within international river basins.

While most transboundary river basins are shared between just two countries, there are many basins where this number is much higher. There are 13 river basins worldwide that are shared between 5 to 8 countries. Five river basins, the Congo, Niger, Nile, Rhine and Zambezi, are shared between 9 to 11 countries. The river that flows through the most countries is the Danube, which passes through the territory of 18 countries. Over 40 percent of the world’s population resides within internationally shared river basins. So far, 274 transboundary aquifers have been identified. They lie under 15 percent of the Earth's surface.

The Food and Agriculture Organization (FAO) of the United Nations has identified more than 3,600 treaties relating to international water resources dating from AD 805 to 1984. The majority of these treaties are concerned with some aspect of navigation.

The total number of water-related interactions between nations are weighted towards cooperation. Violence over water is not a strategically rational, effective or economically viable option for countries. In the twentieth century, only seven minor skirmishes took place between nations over shared water resources, while over 300 treaties were signed during the same period of time.

II. The law of transboundary aquifers²

The United Nations Convention on the Law of the Non-navigational Uses of International Watercourses was adopted on 21 May 1997 after 27 years of development. The convention sets out the basic rights and obligations between States relating to the management of international watercourses. However, it covered transboundary groundwater resources in a very limited way.

Nineteen articles on the law of transboundary aquifers have come in to fill this gap. They were drafted by a team of hydrogeologists and lawyers drawn from the International Hydrological Programme (IHP) of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the United Nations International Law Commission (ILC).

The Sixth Committee of the United Nations General Assembly endorsed the articles and adopted a resolution on the Law of Transboundary Aquifers on 14 November 2008. The articles have been annexed

¹ Additional information about World Water Day is available at <http://www.unwater.org/worldwaterday>.

² The text of the resolution on the law of transboundary aquifers is available at <http://www.un.org/ga/63/resolutions.shtml>.

to a United Nations resolution, which recommends that the States concerned make appropriate bilateral or regional arrangements for managing their transboundary aquifers on the basis of the principles enunciated in the articles. In view of the importance of transboundary groundwater resources, States are also invited to consider, at a later stage, the elaboration of a convention on the basis of the draft articles.

The draft articles are divided into four parts: introduction, general principles, protection, preservation and management, and miscellaneous provisions. The articles enshrine the fundamental principles of customary international law on transboundary water resources, namely the principle of equitable and reasonable utilization (Article 4), the obligation not to cause significant harm (Article 6) and the general obligation to cooperate (Article 7).

Article 4 (“Equitable and reasonable utilization”). Aquifer States (a State in whose territory any part of a transboundary aquifer or aquifer system is situated) shall utilize transboundary aquifers or aquifer systems according to the principle of equitable and reasonable utilization, as follows: (i) they shall utilize transboundary aquifers or aquifer systems in a manner that is consistent with the equitable and reasonable accrual of benefits therefrom to the aquifer States concerned; (ii) they shall aim at maximizing the long-term benefits derived from the use of water contained therein; (iii) they shall establish individually or jointly a comprehensive utilization plan, taking into account present and future needs of, and alternative water sources for, the aquifer States; and (iv) they shall not utilize a recharging transboundary aquifer or aquifer system at a level that would prevent continuance of its effective functioning.

Article 5 (“Factors relevant to equitable and reasonable utilization”). Utilization of a transboundary aquifer or aquifer system in an equitable and reasonable manner requires taking into account all relevant factors, including: (i) the population dependent on the aquifer or aquifer system in each aquifer State; (ii) the social, economic and other needs, present and future, of the aquifer States concerned; (iii) the natural characteristics of the aquifer or aquifer system; (iv) the contribution to the formation and recharge of the aquifer or aquifer system; (v) the existing and potential utilization of the aquifer or aquifer system; (vi) the actual and potential effects of the utilization of the aquifer or aquifer system in one aquifer State on other aquifer States concerned; (vii) the availability of alternatives to a particular existing and planned utilization of the aquifer or aquifer system; (viii) the development, protection and conservation of the aquifer or aquifer system and the costs of measures to be taken to that effect; and (ix) the role of the aquifer or aquifer system in the related ecosystem. The weight to be given to each factor is to be determined by its importance with regard to a specific transboundary aquifer or aquifer system in comparison with that of other relevant factors. In determining what is equitable and reasonable utilization, all relevant factors are to be considered together and a conclusion reached on the basis of all the factors. However, in weighing different kinds of utilization of a transboundary aquifer or aquifer system, special regard shall be given to vital human needs.

Article 6 (“Obligation not to cause significant harm”). Aquifer States shall, in utilizing transboundary aquifers or aquifer systems in their territories, take all appropriate measures to prevent the causing of significant harm to other aquifer States or other States in whose territory a discharge zone is located. Aquifer States shall, in undertaking activities other than utilization of a transboundary aquifer or aquifer system that have, or are likely to have, an impact upon that transboundary aquifer or aquifer system, take all appropriate measures to prevent the causing of significant harm through that aquifer or aquifer system to other aquifer States or other States in whose territory a discharge zone is located. Where significant harm nevertheless is caused to another aquifer State or a State in whose territory a discharge zone is located, the aquifer State whose activities cause such harm shall take, in consultation with the affected State, all appropriate response measures to eliminate or mitigate such harm.

Article 7 (“General obligation to cooperate”). Aquifer States shall cooperate on the basis of sovereign equality, territorial integrity, sustainable development, mutual benefit and good faith in order to attain equitable and reasonable utilization and appropriate protection of their transboundary aquifers or aquifer systems. For this purpose, aquifer States should establish joint mechanisms of cooperation.

III. Istanbul Ministerial Statement³

The Ministers and Heads of Delegations assembled in Istanbul, Turkey, on 20-22 March 2009 on the occasion of the Fifth World Water Forum, “Bridging Divides for Water”, adopted a ministerial statement which includes commitments to, *inter alia*: (i) intensify efforts to reach internationally agreed upon goals such as the Millennium Development Goals; (ii) support the implementation of integrated water resources management at the level of river basin, watershed and groundwater systems, within each country, and, where appropriate, through international cooperation to meet economic, social and environmental demands equitably; (iii) respect international law providing protection for water resources, water infrastructure and the environment in times of armed conflict and cooperate in its further development, as necessary; (iv) develop, implement and further strengthen transnational, national and/or sub-national plans and programmes to anticipate and address the possible impacts of global changes; (v) acknowledge the discussions within the United Nations system regarding human rights and access to safe drinking water and sanitation; (vi) take, as appropriate, concrete and tangible steps to improve and promote cooperation on sustainable use and protection of transboundary water resources through coordinated action of riparian states, in conformity with existing agreements and/or other relevant arrangements, taking into account the interests of all riparian states concerned, and work to strengthen existing institutions and develop new ones, as appropriate and if needed, and implement instruments for improved management of transboundary waters; (vii) invite international organizations and institutions to support international efforts to enhance the dissemination of experiences and sharing of best practices on sustainable water resources rehabilitation, protection, conservation, management and utilization; (viii) strive to prioritize water and sanitation in national development plans and strategies; (ix) acknowledge the need of fair, equitable and sustainable cost recovery strategies; and (x) acknowledge that water is a cross-cutting issue.

IV. Comments of the Forum on Democracy and Trade to the United States Trade Representative⁴

During the presidential campaign in the United States of America, presidential candidate Barack Obama stated, “I will ensure that foreign investor rights are strictly limited and will fully exempt any law or regulation written to protect public safety or promote the public interest. And I will never agree to granting foreign investors any rights in the ... [United States] greater than those of ... [United States nationals]. Our judicial system is strong and gives everyone conducting business in the United States recourse in our courts.” This statement came in response to concerns that international investment agreements allow foreign investors to file claims against national governments seeking money damages in compensation for public interest regulation at the national, state or local level.

With international investment agreements, foreign investors no longer have to work through trade ministries to pursue a claim. As a result, the volume of cases increases. Lacking a diplomatic screen, the claims may be brought without the restraint that nation-states exercise when dealing with issues of international relations. International investment tribunals can effectively enforce their decisions by ordering the national government to pay money damages to the foreign investor.

The presidential candidate’s statement is in line with the positions of many state and local governments in the United States that oppose international investor-state dispute resolution, on the grounds that it (i) subverts the authority of Congress, legislatures and courts; (ii) is biased in favour of transnational

³ The text of the statement is available at http://www.ccre.org/docs/fifth_world_water_forum_final_ministerial_declaration.pdf.

⁴ This is a summary of an article written by staff of the Forum on Democracy & Trade (<http://www.forumdemocracy.net>), a non-profit organization which works to ensure that United States trade policies are consistent with, and deferential to, the principles of federalism as enshrined in the constitution of that country. The article was originally drafted as comments submitted to the United States federal government regarding its negotiation of a proposed “Trans-Pacific Partnership Free Trade Agreement”.

corporations; and (iii) provides more favourable treatment to foreign corporations than to United States citizens and businesses.

By its very nature international investor-state dispute resolution grants greater procedural rights to foreign corporations and investors than those enjoyed by United States nationals. Arbitrators in these cases are typically international commercial lawyers who may alternately serve as arbitrators in one case and plaintiff's counsel in the next, thus raising questions of conflict of interest. Arbitrators may have little or no familiarity with the constitution of the defendant country. In any case, arbitrators apply international rules that supersede domestic constitutional principles in rendering an opinion.

Arbitrators make their decisions based on the text of an international investment agreement and customary international law, both of which are to be interpreted in light of the purpose of the agreement: to promote international investment. The agreements establish procedural rights for foreign investors to enforce them and to collect damages. Ordinary citizens enjoy no significant procedural or enforcement rights under the agreements, in part because the agreements impose very little in the way of foreign investor responsibilities. In other words, values of international commerce trump other values, such as the appropriate role of government to regulate in the public interest and the need to strike a balance between the rights and responsibilities of transnational corporations.

Among the substantive provisions in the current United States model investment chapter, embodied in various international investment agreements, three stand out:

- **The scope of the protected property interests under an overbroad definition of investment.** The current United States model for international investment agreements contains a definition of investment that is broader than the constitutional standards used under domestic law in the United States. For example, the definition includes enterprises or interest in the assets or profits of any enterprise. Any interests resulting in the commitment of capital also might be considered an investment⁵.
- **The unresolved definition of when government regulation constitutes an indirect expropriation for which compensation must be provided.** International investment tribunals are not in agreement on the scope of expropriation rules. In contrast to the narrow construction by United States courts of analogous property rights protections in the Fifth amendment "takings" clause⁶, international arbitrators have room to read the vague expropriation language of international investment agreements broadly or narrowly⁷. Accordingly, the outcome of future cases is unpredictable, and potentially provides greater rights to foreign investors than United States investors. In an attempt to respond to this criticism, the most recent United States investment agreements instruct investment tribunals to apply the three-part test, derived from the Supreme Court's decision in *Penn Central Transportation Co. v. City of New York*, to determine when a regulatory action is a compensable expropriation⁸. The United States constitutional doctrine of regulatory takings,

⁵ By contrast, in the United States, the courts generally uphold takings claims only with respect to physical or intellectual property. Challenges to regulations of economic activity that do not affect a specific property interest, but rather only affect the profitability of an economic enterprise, generally are reviewed under the deferential standard of substantive due process, which as a practical matter makes it almost impossible for the challenge to succeed so long as there is some conceivable rational basis for the regulatory policy.

⁶ United States constitutional case law construes the analogous Fifth Amendment Takings Clause narrowly. United States courts generally find that a government regulation amounts to a compensable "taking" of property only when the regulation eliminates all or substantially all of its economic value. The Supreme Court has held that so long as it does not constitute a physical invasion of property, the "mere diminution in the value of property, however serious, is insufficient to demonstrate a taking".

⁷ The North American Free Trade Agreement (NAFTA) tribunal decision in *Methanex Corporation v. United States* reads the rule relatively narrowly, concluding that "as a matter of international law, a non-discriminatory regulation for a public purpose, which is enacted in accordance with due process and which affects ... a foreign investor or investment is not deemed expropriatory or compensatory," unless specific commitments to refrain from regulation were made to the investor. In sharp contrast, the NAFTA panel in *Pope & Talbot Inc. v. Government of Canada* said that economic regulation, even when it is an exercise of the state's traditional police powers, can be a prohibited indirect or "creeping" expropriation under customary international law if it is "substantial enough".

⁸ This involves an examination of: (i) the economic impact of the government action, although the fact that the action or series of actions by a party has an adverse effect on the economic value of an investment, standing alone, does not establish that an indirect expropriation has

however, is not that simple, straightforward, or so heavily weighted in favour of property rights. The United States Supreme Court did not intend for the Penn Central factors to be a test to be mechanically applied. The United States regulatory taking doctrine provides considerable deference to government regulatory authority. In fact, successful regulatory takings claims in the United States are rare and exceptional. Perhaps the Supreme Court made the most progress in resolving the confusion surrounding United States regulatory takings doctrine in *Lingle v. Chevron U.S.A., Inc.*, where it stated that regulatory takings analysis must focus on government actions that are “functionally equivalent to the classic taking in which government directly appropriates private property or ousts the owner from his domain.”

- **The almost total lack of definition of what it means for a government to fail to meet the minimum standard of treatment of a foreign investor under international law.** Many or most expropriation claims can easily be reframed as minimum treatment claims. The obligation on parties to provide a minimum standard of treatment under international law is broadly stated and highly subjective. Except with respect to issues of procedural due process, it is difficult to predict when a tribunal may decide that a government action has “denied justice” or failed to provide “substantive due process”⁹.

Given the current instability in the financial markets, the United States must be able to regulate financial services and to take other necessary emergency measures without exposing itself to challenges through investor-state arbitration. Although existing United States investment agreements contain an exception that purports to preserve the right of governments to take “prudential” measures to protect investors or the stability of the financial system, these exceptions contain a significant loophole. The prudential measures exceptions typically state that where regulations do not comply with other provisions of the agreement, “they shall not be used as a means of avoiding the Party’s commitments” under the agreement.

If future United States free trade agreements must have an investment chapter, it would be advisable to limit its enforcement to state-to-state dispute resolution. In the unfortunate circumstance that investor-state dispute resolution is included, the danger of investor challenges to United States regulation of financial institutions and related emergency economic measures could be mitigated by carving out of the agreement financial services regulation and other necessary measures taken in response to an economic crisis. And if all else fails, provision could be made for a prudential measures exception similar to that contained in the North American Free Trade Agreement (NAFTA), which does not contain the loophole language.

occurred; (ii) the extent to which the government action interferes with distinct, reasonable investment backed expectations; and (iii) the character of the government action.

⁹ The minimum standard of treatment, which includes the right to fair and equitable treatment, is a vague and evolving standard that permits foreign investors to challenge government actions on the grounds that they are either procedurally or substantively unfair. In the United States agreements with Chile and Singapore, this standard is understood as: (i) an obligation rooted in customary international law, rather than treaty law; and includes (ii) an obligation not to deny justice in criminal, civil, or administrative adjudicatory proceedings in accordance with the principle of due process embodied in the principal legal systems of the world. These vague concepts allow international investment tribunals considerable discretion and make it difficult to predict when a tribunal will find that “justice” has been denied. Discussions in the case law and the academic literature about what types of measures are prohibited by the minimum standard of treatment obligation openly acknowledge that the decisions of tribunals rather than state practice define the content of the norm. The literature is focused on how egregiously a government’s conduct must offend the tribunal’s sense of justice in order to violate the standard. For example, a NAFTA investment tribunal has characterized the minimum standard as follows: “[T]he question is whether ... a tribunal can conclude in the light of all the available facts that the impugned decision was clearly improper and discreditable, with the result that the investment has been subjected to unfair and inequitable treatment. This is admittedly a somewhat open-ended standard, but it may be that in practice no more precise formula can be offered to cover the range of possibilities.” The “minimum standard of treatment” also permits a more aggressive review of economic legislation. One line of tribunal decisions, for example, has indicated that the minimum standard of treatment imposes a duty on governments not to change regulatory standards that were in effect when a foreign investment was made. Under United States substantive due process analysis, and presumably under due process principles embodied in other legal systems, governments are generally free to change regulatory standards in response to changed circumstances or priorities. Tribunals have also noted that the minimum standard of treatment is continuing to evolve, suggesting that the scope of protection that it provides to foreign investors will continue to expand. In sum, the concept of minimum treatment remains open-ended. As a consequence, it gives international investment tribunals, which are not directly accountable to any democratic institution, extraordinary discretion and power.

V. International Boundary and Water Commission (IBWC) marks one hundred and twentieth anniversary¹⁰

The International Boundary and Water Commission (IBWC), United States of America and Mexico, was originally established as the International Boundary Commission in the Treaty of March 1, 1889, “Convention between the United States of America and the United States of Mexico to Facilitate the Carrying out of the Principles Contained in the Treaty of November 12, 1884, and to Avoid the Difficulties Occasioned by Reason of the Changes which Take Place in the Beds of the Rio Grande and Colorado Rivers”. At that time, the Commission’s main responsibility was to resolve issues that arose regarding the location of the international boundary when the two rivers that form part of the boundary changed course. The 1944 Water Treaty expanded the Commission’s mission and changed its name to the International Boundary and Water Commission, to reflect a greater role in such issues as distribution of the waters of the Rio Grande and Colorado River between the two countries, flood control, and sanitation. During the twentieth century, the Commission evolved into an influential agency that addressed numerous water infrastructure challenges along United States-Mexico border.

IBWC is responsible for applying the boundary and water treaties between the two countries and settling differences that arise in their application. As part of its responsibilities, IBWC has a number of important water projects in the region, including Amistad and Falcon Dams, two international storage reservoirs on the Rio Grande that provide a reliable water supply, flood control and hydroelectric power to benefit users in both countries. IBWC also established extensive international flood control projects for the Rio Grande, Colorado River and Tijuana River as well as international wastewater treatment plants in San Diego, California; Nogales, Arizona; and Nuevo Laredo, Tamaulipas.

As part of its commitment to border communities, IBWC has provided technical assistance for other sanitation projects to obtain certification through the Border Environment Cooperation Commission and financing from the North American Development Bank. True to its original mission, IBWC continues to demarcate the international land boundary and resolve boundary disputes that arise due to changes in the river channels. Currently, IBWC is working with authorities from both countries on projects and planning for the Rio Grande and Colorado River to ensure that water supplies and infrastructure in these basins are able to meet the needs of both nations well into the future.

VI. Eighth Summit of the Niger Basin Authority (NBA) Heads of State and Government¹¹

The Eighth Summit of the Niger Basin Authority (NBA) Heads of State and Government took place on 30 April 2008 in Niamey, Niger. Participants discussed issues relating to the management of natural resources in the Niger Basin. They also examined issues of concern to the subregion, especially those relating to food security, preservation and protection of environment and climate change. In the face of these challenges, they decided to reinforce the subregional, regional and international mechanisms of integration and cooperation with a view to promoting a sustainable and concerted development of the River Niger Basin.

As a result of their deliberations, the Heads of State and Government made the following decisions: (i) adoption of the 2008-2027 Investment Programme of the Niger Basin; (ii) adoption of Water Charter of the Niger Basin (see “*The Niger Basin Water Charter*”) and acceleration of the process relating to its effectiveness; (iii) organisation of the donors’ round table to mobilise the funding necessary for the

¹⁰ International Boundary and Water Commission (IBWC), “Commission marks 120th anniversary”, 23 February 2009 (http://www.ibwc.state.gov/files/pressrelease_022309.pdf).

¹¹ Niger Basin Authority (NBA), Executive Secretariat, “8th Summit of the Heads of State and Government”, *Final communique* (<http://www.abn.ne/index.php/eng/News/Publi-INFO/Final-communique-8-th-Head-of-States-Summit>).

implementation of the 2008-2012 priority five-year plan; (iv) acceleration of the realisation of the Taoussa dam in Mali and Kandadji dam in Niger; (v) acceleration of the studies on the autonomous and sustainable financing of the NBA activities and the contracting authority by the Executive Secretariat; (vi) acceleration of the development of the irrigable potential in order to improve food security in the Niger Basin, by the Executive Secretariat and the NBA member States in synergy with the specialised subregional, regional and international organisations; (vii) reinforcement of the existing mechanisms of exchange, in particular in the area of agricultural production, and of complementarity among the member countries; and (viii) extension of the mandate of the current NBA Executive Secretary.

The NBA is one of the oldest African intergovernmental organizations. It was originally created in 1964 as the River Niger Commission. On 21 November 1980, the commission was transformed into the NBA. Its mission is to promote cooperation between the member countries (Benin, Burkina Faso, Cameroon, Chad, Guinea, Ivory Cost, Mali, Niger and Nigeria) and ensure an integrated development of the river basin in all areas by the development of its resources. The NBA has four statutory bodies: Summit of the Heads of States and Governments, the Council of Ministers, the Technical Committee of Experts and the Executive Secretary.

VII. The Niger Basin Water Charter¹²

The purpose of the Niger Basin Water Charter is to encourage cooperation based on solidarity and reciprocity for a sustainable, equitable and coordinated use of the Niger Basin catchment area. To this end it aims to: (i) reinforce solidarity and promote integration and subregional economic cooperation between the Member States; (ii) promote integrated management of the Niger Basin water resources; (iii) promote the harmonization and monitoring of national policies for the preservation and protection of the Niger Basin hydrographic catchment area; (iv) define procedures for examination and approval of new projects which use water or which could affect the quality of water; (v) provide a framework to the principles and procedures for the allocation of water resources between the various use sectors and the associated benefits; (vi) determine the rules related to the protection and preservation of the environment in accordance with the sustainable development objectives; (vii) maintain the integrity of ecosystems through protection of aquatic ecosystems against the deterioration of basins; (viii) protect public health through control of disease vectors; (ix) define the principles and rules for the prevention and settlement of disputes regarding the use of Niger Basin water resources; (x) define procedures for the participation of water users in decision-making processes regarding water resources management; (xi) promote and facilitate dialogue and consultation between the Member States in the design and execution of programmes, projects and all other development activities affecting or which could affect the Basin's water resources; and (xii) promote research and technological development, information exchange, reinforcement of capacities, in particular as regards the integrated water resources management and the use of adequate technologies for the management of the Niger Basin catchment area.

VIII. International Joint Commission (IJC) commends an initiative to eliminate the movement of invasive species¹³

The International Joint Commission (IJC) of Canada and the United States of America commends the Alliance for the Great Lakes (<http://www.greatlakes.org>) for leading an initiative to eliminate the movement of invasive species between the Great Lakes and Mississippi River basins through the Chicago Waterway System. The effort is described in a report entitled "Preliminary Feasibility of Ecological Separation on the Mississippi River and the Great Lakes to Prevent the Transfer of Aquatic Invasive Species" that was released on 12 November 2008.

¹² The text of the Niger Basin Water Charter is available at <http://www.abn.ne/index.php/eng/News/Publi-INFO/The-Water-Charter>.

¹³ International Joint Commission (IJC), "IJC commends The Alliance for the Great Lakes for effort to stop movement of invasive species through the Chicago Waterway System", 12 November 2008 (http://www.ijc.org/rel/news/2008/081112_e.htm).

Invasive species are perhaps the foremost threat to the ecological integrity of the Great Lakes basin ecosystem. The impact of invasive species already in the system, from the sea lamprey to the zebra mussel, serve as harbingers of the economic and environmental costs to come if this crucial threat is not controlled. The IJC strongly supports the maintenance of the electric fish dispersal barrier and construction of a second electrical barrier in the Chicago Sanitary and Ship Canal, but recognizes the limitations of these measures. While not endorsing any specific long-term strategy, the IJC is impressed with the creative effort to engage as many stakeholders as possible and to carefully examine a range of actions to stop the movement of invasive species between the two watersheds while taking the economic and social dimensions into account.

The IJC prevents and resolves disputes between the United States and Canada under the 1909 Boundary Waters Treaty and pursues the common good of both countries as an independent and objective advisor to the two governments. Among its responsibilities, the IJC assesses progress in the United States and Canada to restore chemical, physical and biological integrity to the Great Lakes under the binational Great Lakes Water Quality Agreement.

IX. G77 adopts Muscat Declaration on Water¹⁴

The ministers in charge of water resources of the member states of the Group of 77 (G77) met on the occasion of the first G77 Ministerial Forum on Water held in Muscat, Sultanate of Oman from 23 to 25 February 2009. The forum adopted the Muscat Declaration on Water which, *inter alia*, stresses the importance to create a comprehensive water data and information centre among developing countries; encourages the adoption of international conventions to deal with cooperation on transboundary water sharing and conflict resolution; calls on the United Nations system to play an important role in exchange of scientific and technological research in the field of water resources; encourages member countries to work together to strengthen strategic partnerships between countries of the South so as to contribute to the sharing of knowledge, innovation and transfer of technology for better access to safe water and sanitation; and emphasizes the importance and the supportive role of the United Nations system, particularly UNDP, FAO, UNESCO, UNIDO, WMO, WHO, UNEP, other United Nations Institutions, the regional Commissions and financial institutions in promoting cooperation in the exchange of scientific and technological know-how in sourcing, efficient management, preservation and sustainable use of water in developing countries.

X. Tanzania held to have violated investment treaty protections, but no damages flow from these breaches¹⁵

An arbitral tribunal at the International Centre for Settlement of Investment Disputes (ICSID) has held Tanzania in breach of several provisions of the United Kingdom-Tanzania bilateral investment treaty in relation to its treatment of the water services company Biwater-Gauff Ltd. (BGT) (see *International Rivers and Lakes N° 46*). Notwithstanding a finding of multiple treaty breaches, the tribunal rejected in its entirety a bid by BGT for upwards of US\$ 20 million in compensation, citing the dire state of its water project by the time the government took a series of abusive and unnecessary actions which deviated from the treaty protections owed. From a purely financial perspective, these actions by Tanzania, that included the seizure of BGT assets and the deportation of company executives, merely served to accelerate (in a fashion contrary to the treaty) a process of winding up an investment which was teetering on the brink of

¹⁴ The text of the Muscat Declaration on Water is available at <http://www.g77.org/water/declaration.html>.

¹⁵ “In an unusual outcome, Tanzania held to have violated treaty protections owed to foreign water services company, Biwater Gauff, but no damages flow from these breaches; ICSID tribunal holds that firm’s ill-managed operation of Dar es Salaam water supply had brought company to brink of collapse by the time Tanzanian Government actions served to breach UK-Tanzania investment treaty”, “Tanzania’s handling of City Water deemed an expropriation; tribunal finds project was worthless by time of expropriation” and “Other treaty breaches, including of the fair and equitable treatment standard, upheld in Biwater Gauff (Tanzania) Ltd. v. Republic of Tanzania”, *Investment Arbitration Reporter*, Volume 1, N° 6, July 28, 2008, Luke Eric Peterson (*editor*) (<http://www.iareporter.com/Archive/IAR-07-28-08.pdf>).

collapse. The tribunal was convinced that the poorly prepared and executed project was essentially worthless before the various treaty breaches were committed by Tanzania in May and June of 2005.

A recurring theme throughout the award is the impropriety of a Tanzanian Government Minister's having made certain public comments, which were construed by BGT and the tribunal as excessive, inflammatory and designed for political gain in the context of the Minister's own plans to run for Prime Minister in forthcoming elections. Indeed, one debate which the award may engender in future is the extent to which investment treaties place restrictions on the ability of governments in their political role as elected representatives to pronounce upon matters such as the ones in the present dispute. An initial reading of the award appears to put elected officials on notice that they must tread delicately with respect to their public pronouncements in the context of conflicts over foreign-owned investments.

It should also be added that the tribunal gave some credence to BGT's claim that the failure by Tanzania to appoint an independent regulator to govern the investment was, as a matter of principle, a breach of the fair and equitable treatment standard. However, in the circumstances of the case, the tribunal held that this had no negative impact on BGT, as the interim regulator (the same Minister whose later pronouncements were considered unreasonable by the tribunal because they imparted more than mere information, and tipped over into "severe criticisms of BGT which were at least in part clearly motivated by political considerations") was found by the tribunal to have acted according to his remit.

The tribunal's approach to the fair and equitable treatment standard is noteworthy in that it took on board arguments by the Tanzanian Government, and a group of nongovernmental organizations, to the effect that the interpretation of this standard should take into account factors such as the investor's own conduct and responsibilities. Tanzania argued that investors could not hold governments responsible for poor investment decisions or unreasonable risks taken. The tribunal summarized Tanzania's articulation of this point as follows: "(An investor) must assess the extent of the investment risk before entering into the investment, have realistic expectations as to its profitability, and be on notice of both the prospects and pitfalls of an investment undertaken in a high risk location ... Determining what fair and equitable treatment consists of in any particular case requires a proper assessment of investment risk at the outset of the investment process". The amicus curiae brief, submitted by a group of nongovernmental organizations, and which the tribunal summarized at length at an early stage in the award, deeming it a "useful" contribution to the proceeding, argued that investors have a series of responsibilities including to act in good faith prior to and during the investment period; to meet their own obligations under investment contracts; and to undertake proper due diligence and assessment of risks before entering into an investment.

XI. United States of America: Arkansas and Missouri sign water agreement¹⁶

In the United States of America, Arkansas and Missouri have signed a bi-state agreement calling for state agencies dealing with water issues to meet at least annually to study ways to protect watersheds and aquifers that cross state lines, and to produce a biennial report on the status of the pact. It also calls on the states to develop and share monitoring and modelling of water quality in their shared watersheds. The agreement is expected to help the two states avoid conflicts or litigation over water-quality issues.

¹⁶ Andrew Demillo (2008), "Governors ratify accord to protect shared waters", *Arkansas Democrat-Gazette*, November 25 (<http://www.nwanews.com/adg/News/244621>).

XII. Mekong River Commission (MRC): changes along Mekong challenge planning process¹⁷

Economic growth will lead to significant changes in the annual flows of rivers in the Mekong Basin, and the use of their water, complicating the task of development planning, and making it vital that decision-making processes become wider and more inclusive. That feeling was one of the major themes expressed by participants at a stakeholder forum in Vientiane, Lao People's Democratic Republic, hosted by the Mekong River Commission (MRC) on 12-13 March 2008. The forum, organised by MRC's Basin Development Plan Programme, gave representatives from different areas of society a chance to share their views on current planning and development scenarios in the river basin, and on how events in the near future may shape resource use in coming years. Some participants called on MRC to use the second phase of the Basin Development Plan to bring more groups and views into the planning process. Officials from the Member States of MRC stressed the need to cooperate to use the rich resources of the Mekong to improve living conditions across the river basin. MRC staff pointed out that there are no magic solutions to the challenges facing decision makers in the basin. While research, monitoring and scientific modelling can provide much information on current situations, and on the possible effects of large individual projects such as storage dams, the cumulative effects of rapid development will affect rivers and the land and communities around them in ways that cannot be exactly determined. The Basin Development Plan will help meet this gap, under the condition that information is provided by all countries and sectors of society.

MRC was established in 1995 by an agreement between the governments of Cambodia, Lao PDR, Thailand and Viet Nam. The Agreement on Cooperation for the Sustainable Development of the Mekong River Basin, signed on 5 April 1995, set a new mandate for the organization "to cooperate in all fields of sustainable development, utilisation, management and conservation of the water and related resources of the Mekong River Basin". The agreement brought a change of identity for the organisation previously known as the Mekong Committee, which had been established in 1957 as the Committee for Coordination of Investigations of the Lower Mekong Basin - the Mekong Committee. Since the 1995 Agreement, MRC has launched a process to ensure "reasonable and equitable use" of the Mekong river system, through a participatory process with National Mekong Committees in each country to develop procedures for water utilization. MRC is supporting a joint basin-wide planning process with the four countries, called the Basin Development Plan, which is the basis of its Integrated Water Resources Development Programme. It is also involved in fisheries management, promotion of safe navigation, irrigated agriculture, watershed management, environmental monitoring, flood management and exploring hydropower options.

XIII. Recent books and studies on transboundary water issues

- **"The TWO analysis - introducing a methodology for the transboundary waters opportunity analysis"** by David Phillips, Anthony Allan, Marius Claassen, Jakob Granit, Anders Jägerskog, Elizabeth Kistin, Marian Patrick and Anthony Turton¹⁸. The objective of the report is to promote the sustainable and equitable use of transboundary water resources, and to clarify trade-offs relating to their development. The report outlines a concept for analysing potential benefits in a transboundary river basin to optimize economic growth, political stability and regional integration. The conceptual framework is termed the transboundary waters opportunity (TWO) analysis. Particular emphasis is placed on the potential for developing baskets of benefits at the regional level by identifying positive-sum

¹⁷ Mekong River Commission (MRC), "Changes along Mekong challenge planning process", MRC N° 05/08, Vientiane, Lao PDR, March 14, 2008 (http://www.mrcmekong.org/mrc_news/press08/bdp_stakeholder14-mar-08.htm).

¹⁸ David Phillips, J. Anthony Allan, Marius Claassen, Jakob Granit, Anders Jägerskog, Elizabeth Kistin, Marian Patrick and Anthony Turton (2008), *The TWO analysis - introducing a methodology for the transboundary waters opportunity analysis*, Report N° 23, Stockholm International Water Institute (SIWI), Stockholm (http://www.siw.org/documents/Resources/Reports/Report23_TWO_Analysis.pdf).

outcomes or win-win solutions which would benefit all basin States. The conceptual framework consists of a matrix with four key development opportunities (hydropower production and power trading, primary production, urban and industrial development, and environment and ecosystem services) and two main categories of sources of water to realise those opportunities (the potential for new water to be developed within the basin and the efficient use and management of water). The framework allows for context-specific analysis, which brings the possibility to add other factors and categories for creative analysis and to realize change in particular transboundary basins.

- **“Federalism, transboundary water management and path dependency”** by Timothy Heinmiller¹⁹. The existence of transboundary waters creates difficulties for the riparian governments sharing them because they are locked in a common pool situation in which each government faces simultaneous and contradictory incentives: in their own interests, they are motivated to secure access to resource flows, but, in the collective interest, they must also conserve the resource stock. Managing such a situation requires collective action. The factors that are important in facilitating such action include the importance of shared interests, mutual trust, and the enforceability of intergovernmental commitments. In many basins there is a long history of intergovernmental cooperation in water management, and this history, in itself, has become an important factor shaping more recent water management efforts. Early efforts at transboundary water management focused mostly on either water apportionment or dispute resolution, and these early water management regimes have proven strongly path dependent, shaping more recent management efforts that have focused on water conservation. In other words, early institutional choices in transboundary water management, when water conservation was not a priority, have shaped transboundary conservation regimes now that water conservation is a priority, pointing to the importance of institutional path dependency as a factor in shaping intergovernmental cooperation. This argument is explored through a comparison of four transboundary river basins in Australia, the United States and Canada.
- **“Troubled waters - climate change, hydropolitics, and transboundary resources”**, edited by David Michel and Amit Pandya²⁰. This collaborative volume examines the multiple challenges that global climate change raises for the management of shared freshwater resources, assesses the prospective risks to human security, evaluates the possibilities for cooperative responses, and explores how policies and institutions can evolve to ensure sustainable water supplies in a warming world. The collected papers include: “Climate change and water: examining the interlinkages” by Jayashree Vivekanandan and Sreeja Nair, “South Asian perspectives on climate change and water policy” by Ashok Jaitly, “Climate insecurity in Southeast Asia: designing policies to reduce vulnerabilities” by Khairulmaini Osman Salleh, “Climate change in the Arab world: threats and responses” by Mohamed Abdel Raouf Abdel Hamid, “A case for integrating groundwater and surface water management” by Kendra Patterson, and “A river runs through it: climate change, security challenges, and shared water resources” by David Michel.
- **“Assessing management regimes in transboundary river basins: do they support adaptive management?”** by Tom Raadgever, Erik Mostert, Nicole Kranz, Eduard Interwies and Jos Timmerman²¹. River basin management is faced with complex problems that are characterized by uncertainty and change. In transboundary river basins, historical, legal, and

¹⁹ Timothy Heinmiller (2007), “Federalism, transboundary water management and path dependency”, Annual Meeting of the American Political Science Association (Chicago, Illinois, 30 August 2007) (http://www.allacademic.com/meta/p209546_index.html).

²⁰ *Troubled waters: climate change, hydropolitics, and transboundary resources*, David Michel and Amit Pandya (editors), The Henry L. Stimson Center, Washington, D.C. (http://www.stimson.org/rv/pdf/troubled_waters/troubled_waters-complete.pdf).

²¹ Tom Raadgever, Erik Mostert, Nicole Kranz, Eduard Interwies and Jos Timmerman (2008), “Assessing management regimes in transboundary river basins: do they support adaptive management?”, *Ecology and Society*, volume 13, issue 1 (<http://www.ecologyandsociety.org/vol13/iss1/art14>).

cultural differences add to the complexity. The literature on adaptive management gives several suggestions for handling this complexity. It recognizes the importance of management regimes as enabling or limiting adaptive management, but there is no comprehensive overview of regime features that support adaptive management. This paper presents such an overview, focused on transboundary river basin management. It inventories the features that have been claimed to be central to effective transboundary river basin management and refines them using adaptive management literature. It then collates these features into a framework describing actor networks, policy processes, information management, and legal and financial aspects. Subsequently, this framework is applied to the Orange and Rhine river basins. The paper concludes that the framework provides a consistent and comprehensive perspective on transboundary river basin management regimes, and can be used for assessing their capacity to support adaptive management.

- **“Regional water cooperation and peacebuilding in the Middle East”** by Annika Kramer²². In the semi-arid and arid climatic conditions of the Middle East, water management is a contentious issue between parties sharing the same water resources. Solving water problems has been identified as a topic of common interest to Israelis, Jordanians and Palestinians. While in theory cooperation over water resources could act as a pathway for building peace, it is not well understood how the peacebuilding effects of such cooperation can best be harnessed, supported and sustained. This study aims to contribute answers to this question through a detailed assessment of two existing initiatives promoting water cooperation between Jordanians, Israelis and Palestinians: the Good Water Neighbours (GWN) project and the Regional Water Data Banks Project (RWDBP). Analysis of the two cases provides insights into the challenges of putting environmental peacebuilding into practice at different levels of society. The initial focus of the study is on the design and implementation of cooperative processes, given that both the form and content of cooperation are critical for peacebuilding impact. This analysis includes the role that external actors play in these issues, with the ultimate aim of providing recommendations on how such actors can strengthen the peacebuilding potential of water cooperation in practice.
- **“Scope and sustainability of cooperation in transboundary water sharing of the Volta river”** by Anik Bhaduri, Nicostrato Perez and Jens Liebe²³. This study explores the scope and sustainability of a self-enforcing cooperative agreement in the framework of a game-theory model, where the upstream and downstream countries, Burkina Faso and Ghana in the Volta River Basin, bargain over the level of water abstraction. In the model, the authors consider the case where the downstream country, Ghana, offers a discounted price for energy export to the upstream country, Burkina Faso, to reduce its water abstraction rate. The paper examines the benefits and sustainability of such self-enforcing cooperative arrangements between Ghana and Burkina Faso given stochastic uncertainty in the river flow.
- **“Power and water in the Middle East. The hidden politics of the Palestinian-Israeli water conflict”** by Mark Zeitoun²⁴. Adopting a new approach to understanding Palestinian-Israeli water conflict, hydro-hegemony, the author shows how existing tactics to control water are leading away from peace and towards continued domination and a squandering of this vital and valuable resource. Existing approaches tend to play down the negative effects of non-violent water conflict, and what is presented as cooperation between countries often

²² Annika Kramer (2008), *Regional water cooperation and peacebuilding in the Middle East*, Initiative for Peacebuilding (IfP)/Adelphi Research, December (<http://www.initiativeforpeacebuilding.eu>).

²³ Anik Bhaduri, Nicostrato Perez and Jens Liebe (2008), “Scope and sustainability of cooperation in transboundary water sharing of the Volta River”, *Discussion Papers on Development Policy*, number 124, Zentrum für Entwicklungsforschung (ZEF), Center of Development Research, University of Bonn, September (http://indiaenvironmentportal.org.in/files/zef_dp_124.pdf).

²⁴ Mark Zeitoun (2008), “Power and water in the Middle East. The hidden politics of the Palestinian-Israeli water conflict”, *Library of Modern Middle East Studies*, volume 70, I.B. Tauris Publishers, London (<http://www.ibtauris.com>).

hides an underlying state of conflict between them. The new analytical framework of hydro-hegemony exposes the hidden dynamics of water conflict around the world and yields critical insights into the Middle East water problems.

XIV. Update: ECLAC water-related research²⁵

- “*Revisiting privatization, foreign investment, international arbitration, and water*” by Miguel Solanes and Andrei Jouravlev (*Recursos naturales e infraestructura* series No 129). A subject relevant to the governance of water resources and related public services is the effect that international trade and investment agreements may have on national capacities to manage natural resources and to regulate public services. As a consequence of globalization, many services are provided and water rights held by companies within foreign investment protection systems or special conflict resolution regimes, which means that external jurisdictions can intervene in local matters. The reasons for concern include the secret nature of procedures, the lack of obligatory precedent, the absence of principles of public interest, and the fact that the tribunals are *ad hoc* bodies comprised of members paid by the parties involved. The decisions of international arbitration tribunals tend to restrict the power of government to act in the public interest and in that of local communities. This is clearly relevant for water-related environmental matters, informal local customary interests and public service issues. Serious questions are being raised about the functioning of international arbitration tribunals. However, it is unrealistic to expect international investment- and trade-protection treaties or arbitration mechanisms to be abolished, as they form an important part of the world economy. It is therefore necessary to think of ways to ensure that their principles and procedures are adjusted to their impact on countries’ governance and on national environmental, social and economic sustainability. This paper is a first step in this direction.
- “*Servicios de agua potable y alcantarillado en la ciudad de Buenos Aires, Argentina: factores determinantes de la sustentabilidad y el desempeño*” (“*Drinking water and sewerage services in the city of Buenos Aires: determining factors of sustainability and performance*”) by María Begoña Ordoqui Urcelay (*Recursos naturales e infraestructura* series No 126) (available in Spanish only). The analysis of the provision of water supply and sanitation services in the Metropolitan Area of Buenos Aires, Argentina, is of interest for two main reasons: (i) poor service provision by the State-owned enterprise made it easier to justify the process of sectoral transformation and privatization; and (ii) the performance of the private company was characterized by breaches of contract, repeated renegotiation and regulatory disputes, which resulted in the contract being rescinded. The study aims to identify the factors determining the economic, social and environmental unsustainability (and sustainability) of service provision in the Metropolitan Area of Buenos Aires, with a perspective applicable to other countries. The analysis focuses on factors endogenous to the water supply and sanitation sector (institutional structure, private sector participation, regulatory framework, finance, tariff and subsidy policies, sequencing of the reform process and phasing of economic, social and environmental objectives), as well as exogenous factors (macroeconomic policy, social situation, position of sector in political priorities as seen through government decisions, and water and environmental management policies).

²⁵ The publications of the Natural Resources and Infrastructure Division are available in two formats: (i) electronic files (PDF), which may be downloaded from <http://www.eclac.org/dni> or requested from Andrei.JOURAVLEV@cepal.org; and (ii) printed documents (hard copies), which should be requested from the ECLAC Distribution Unit (e-mail: publications@eclac.cl, fax: (56-2) 210-20-69, mail: ECLAC Publications, Casilla 179-D, Santiago, Chile).