## **International Water Disputes:** A New Breed of Claims, Claimants, and Settlement Institutions

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Abstract: The challenges facing water resources world-wide stem from a multitude of factors, including the steady increase in population, urbanization, environmental degradation, and industrialization. Those challenges are compounding water shortages, and in turn, resulting in steadily increasing international disputes over water. Such disputes are getting more complex and novel, involving not only states, but also legal entities, corporations, and individuals against other states. The claims now go beyond the traditional water quantity issues, and involve water quality, border lines across boundary rivers, and water rights issues. The settlement institutions have expanded considerably and now include varied international and national tribunals, as well as third and fourth parties. This article reviews and discusses those novel claims, claimants and dispute settlement institutions, and analyzes emerging trends in this area.

**Keywords**: boundary rivers, International Centre for Settlement of Investment Disputes, International Court of Justice, NAFTA, neutral expert, Permanent Court of Arbitration, prior appropriation, thalweg, water debt

### **Cooperation and Conflict over International** Waters: Is the Glass Half Full or Half Empty?

Water resources are facing tremendous and ever-increasing pressures throughout the globe. The population of the world has more than tripled in the last century, presenting major challenges to all governments of the world. Environmental degradation and hydrological variability, as well as urbanization and industrialization have compounded those challenges. Such challenges are particularly daunting to developing countries because the rates of population growth and urbanization both are high, and per capita water availability is already low. Disputes resulting from the competing demands between different users and uses at the local, district, provincial, national, and international levels keep multiplying. Issues related to international waters are becoming increasingly apparent at, and indeed, intertwined with domestic uses and needs. Utilization of shared waters by one country is now, more than ever before, having more direct effects on other countries sharing the same watercourse, whether such watercourse is surface or groundwater.

With more than 300 rivers, about 100 lakes, and a large and yet to be determined number of aquifers shared by two or more states, water could be a cause for disputes, as well as a catalyst for cooperation. Indeed, that has been the situation globally, particularly in the last decade. Examples of both disputes and cooperation at the international level are abundant. Some of the disputes have been peacefully resolved, while others are still awaiting resolution. Other disputes are brewing and could erupt any time. Resolution of some disputes has been achieved by the parties themselves in some instances, and through third parties in others (Permanent Court of Arbitration, 2003). On the other hand, cooperation has resulted in tangible gains in some cases, whereas such gains are still to materialize in others.

India and Pakistan, with the mediation of the World Bank, were able to resolve their dispute over the Indus River System in 1960 when they concluded the Indus Waters Treaty. That Treaty, following the Solomonic wisdom, divided the six rivers between the two countries, raising questions as to whether better and more cooperative and collaborative results could have been achieved through sharing, rather than through division, of the Indus Basin. Moreover, the recent dispute between the two countries over the Baglihar power plant presents, as will be discussed below, a major challenge.

A year earlier, in 1959, Egypt and Sudan resolved their dispute over the sharing of the Nile waters and the construction by Egypt of the High Dam by concluding an Agreement for the Full Utilization of the Nile Waters. However, seven other riparians of the Nile at that time were left out of the process, raising questions about the fairness and sustainability of that Agreement. The Nile Basin Initiative (NBI) that is currently being facilitated by the World Bank, the United Nations Development Programme and other donors, and that was officially launched in 1999, aims at assisting the riparian states in achieving an equitable and reasonable utilization of the waters of the Nile. The NBI has succeeded in bringing together for the first time those riparian states, at the ministerial level, and in establishing a secretariat, as well as a consultation and decision making process. However, seven years after the NBI was officially launched, a treaty encompassing all the riparians is still to be agreed upon.

Four of the Mekong riparians – Thailand, Vietnam, Lao People's Democratic Republic (Lao PDR), and Cambodia – have been cooperating for some time and have concluded the Agreement on the Cooperation for the Sustainable Development of the Mekong River Basin in 1995. The Agreement reaffirmed the spirit of cooperation that was started in 1957, and strengthened the Mekong River Commission. However, two of the Mekong riparians, namely China and Myanmar, are not parties to the Treaty. The absence of China, in particular, raises questions about the viability and sustainability of cooperation because China is the upper most riparian and the strongest regional power. Similarly, eleven of Danube riparians concluded a comprehensive Convention on Cooperation for the Protection and Sustainable Use of the Danube River in 1994. In spite of this cooperative trend, two of the Danube riparians, Hungary and Slovakia, are engaged in a prolonged and complex dispute, which, as will be discussed below, still awaits a final resolution.

In 1996, India and Bangladesh concluded a Treaty on Sharing of the Ganges Waters. The Treaty ended a bitter dispute that lasted, with intermittent and inconclusive short term agreements, for more than thirty years, and the dispute itself predated the emergence of Bangladesh as an independent nation. However, implementation of the Treaty ran into difficulties because in some seasons there was not enough water to meet the allocations for both countries under the Treaty. More importantly, the Treaty is to remain in force for thirty years only, expiring in 2026. With about one-third of the Treaty period having elapsed, legitimate questions are being asked as to whether the Treaty, similar to the other short term agreements, has also missed the opportunity for a lasting durable solution. Such solution would address, once and for all, the basic issue of augmenting the flow of the Ganges during the dry season

to meet the ever-increasing demands of both countries.

This mixed picture is not different at the global scene. In 1997, after more than a quarter of a century of preparatory work and deliberations, the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses was adopted by the General Assembly of the United Nations by a large majority, exceeding one hundred members, with only three countries opposing. However, nine years later, the Convention is still to attain the necessary number of instruments of ratification to enter into force and effect. Only fourteen countries have thus far ratified the Convention, which needs 35 instruments of ratification to enter into force. This slow pace has raised concerns as to whether the Convention will ever enter force.

Moreover, there are international watercourses where there are currently no agreements, or even attempts to address the existing or emerging disputes and build confidence and shared vision towards cooperation. The dispute over the Tigris and Euphrates between Turkey, Iraq, and Syria falls under this category. A similar situation exists on the Jordan River and its tributaries between the Palestinians, the Syrians, the Lebanese, and the Israelis, as well as on the shared groundwater between Israel and the Palestinians.

Clearly, the picture over international waters is a mixed one. There are many serious global attempts at cooperation, but not all are inclusive, and a number of them have not yet produced tangible and sustainable results. In other instances, no serious attempts are underway to address the existing and brewing disputes. As such, cooperation may be highlighted and underscored as the emerging trend. Conversely, others may argue, based on the above survey, that disputes are still dominating the international water scene. Accordingly, the question of whether the glass of cooperation on international waters is half full or half empty is the subject of a heated and passionate debate.

Most of the disputes discussed above have centered on water quantity and the related issues of dams and diversion. As such, resolution of those disputes addresses the question of which of the riparian countries gets how much water. However, even those kinds of disputes are getting quite complex. Furthermore, other international water disputes are emerging, with difficult, intricate, and novel shapes. The parties are no longer riparian states only. Individuals and legal entities of one riparian state are now parties to such disputes against the governments of other riparian states. Multinational corporations are also emerging as parties to such international water disputes against states. Issues where differences are emerging are no longer confined to quantity, but extend to quality, right of use, as well as monetary compensation. The question of where the borders across boundary rivers are to be drawn is emerging as a serious and complex one. Settlement of international water disputes is no longer confined to the International Court of Justice (ICJ). The Permanent Court of Arbitration (PCA), the International Centre

for Settlement of Investment Disputes (ICSID); Third parties and even regional and national courts are now playing an important role in dispute settlement.

The purpose of this article is to examine some new and emerging types of disputes, parties, and settlement institutions and to attempt to draw lessons and conclusions from such international water disputes and the process to resolve them.

#### Compounded Complexity: The Gabcikovo-Nagymaros Case

Even when the dispute involves water quantity, dams, or diversion issues, the questions that the dispute poses may be quite complex, eluding a speedy and final settlement. The Gabcikovo-Nagymaros case is an example of such complexities. The dispute arose between Hungary and Czechoslovakia regarding two barrages over the Danube River envisaged under a Treaty concluded in 1977 by the two countries. Construction began in the late 1970s, but in the mid-1980s, environmental groups in Hungary claimed negative environmental impacts of the barrages and began protesting against the project, forcing the Hungarian government to suspend work in 1989. Czechoslovakia insisted that there were no negative environmental impacts and decided to proceed unilaterally with a provisional solution consisting of a single barrage on its side, but requiring diversion of a considerable amount of the waters of the Danube to its territory. Czechoslovakia claimed that this was justified under the 1977 Treaty. As a result of the unilateral action of Czechoslovakia, Hungary decided to terminate the 1977 Treaty based on ecological necessity. The situation became more complicated with the split of Czechoslovakia in December 1992 into two countries (the Czech Republic and the Slovak Republic, or Slovakia), and the agreement that Slovakia would succeed in owning the Czechoslovakian part of the project. By that time, Slovakia had already dammed the Danube and diverted the waters into its territory. The two countries agreed in April 1993, basically under the pressure from the Commission of the European Communities, to refer the dispute to the International Court of Justice (ICJ).

This is the first international water dispute to be referred to, and decided by, the Court. The dispute involves complex legal issues, including the law of treaties, state responsibility, environmental law, and the concept of sustainable development, as well as international watercourses. In a brief summary, the Court ruled in September 1997 that Hungary was not entitled to suspend or terminate the work on the project in 1989 on environmental grounds and that Czechoslovakia, and later Slovakia, was also not entitled to operate the project based on the unilateral solution it developed without an agreement with Hungary. The Court further decided that Hungary was not entitled to terminate the 1977 Treaty on the grounds of ecological necessity, and thus the Court ruled that the Treaty was still in force. The Court concluded that "Hungary and Slovakia must negotiate in good faith in the light of the prevailing situation, and must take all necessary measures to ensure the achievement of the objectives of the Treaty of 1977, in accordance with such modalities as they may agree upon" (International Court of Justice, 1997). However, the two parties have not yet been able to resolve this dispute.

# Disputes over Boundary Rivers: Where to Draw the Border Lines?

Rivers serve a multitude of purposes. They are the sources of water for domestic, municipal, and agricultural uses, as well as for hydropower, fisheries, and recreational purposes. They also serve, when navigable, as international highways, connecting countries and their communities with each other by providing an important mode of transportation. Less noticed is the fact that international rivers also serve as boundaries between states. It may seem ironic, and indeed contradictory, that water which serves as the mode for facilitating the bringing of different peoples, cultures, and civilizations together, can also become official boundaries and barriers separating those same people, cultures and civilizations, and hindering their free movement and contacts. Yet, a large number of rivers and lakes constitute such international boundaries. The Senegal River separates Senegal from Mauritania across their entire common borders. So does the Orange River between Namibia and South Africa, as well as the San Juan River between Nicaragua and Costa Rica. The Mekong River is a boundary river for large stretches between Lao PDR and Cambodia, Lao PDR and Thailand, and Lao PDR and Myanmar. The Chobe River is a boundary river between Namibia and Botswana, and the Amur River between China and Russia. The Mahakali River is also a boundary river for some stretches between India and Nepal, and the Ganges between India and Bangladesh. The Danube River constitutes the boundaries between a number of countries including Germany and Austria, Austria and Slovakia, and Romania and Ukraine. The Rio Grande and the Colorado River constitute borders between the United States and Mexico, and the Niger River between Benin and Niger. Similarly, a number of lakes, such as Lake Victoria, Lake Chad, Lake Constance, and the Great Lakes of North America also constitute the borders between a number of countries (Salman, 2000).

However, the issue of where the borders run across international rivers or lakes is not always agreed upon. Even when there is a treaty demarcating the borders across the river or lake, different interpretations have been given to the provisions of such a treaty (Querol, 2005). In this connection, four theories addressing this issue have arisen since the last century. The first is the "condominium" or "no man's land" where the borders of each state are set at the banks of the river, leaving the entire river as a condominium or a no-man's land. The second is drawing the borders on the shores of one state, leaving the entire river or lake within the jurisdiction of the other state, with no part for the former. The third theory is the "*thalweg*," which means the succession of the deepest points of the river or the channel used by navigators. The fourth is the middle point of the river (Caflisch, 1998).

Those different theories have given rise to an increasing number of disputes, four of which have been referred to the ICJ. The first of those disputes arose in the early nineties between Namibia and Botswana over their borders across the Chobe River. Where the borders are drawn would in turn determine which of the two countries would get the ownership of an island in the river, known as Kasikili by Namibia, and Sedudu by Botswana. After prolonged attempts to resolve the issue through negotiations and mediation failed, the two parties took the dispute to the ICJ, which issued its decision in 1999. The decision is based on the interpretation by the Court of an 1890 Treaty between Great Britain and Germany regarding their sphere of influence in Africa. After considering the different theories, the provisions of the Treaty, and the interpretations of the parties of the law and facts, the Court concluded that the deep points of navigation across the river constitute the boundary between the two countries. Drawing the borders along the deep points of navigation placed the island in the part of the Chobe River falling under the jurisdiction of Botswana (Salman, 2000).

A similar dispute arose between Cameroon and Nigeria over their maritime boundaries around the Bakasi Island and their land and water boundaries around the area of Lake Chad Basin. The Court ruled in 2002 in favor of Cameroon in the maritime boundary, and in favor of Nigeria on the land and water boundaries. The decision was based on the Court's interpretation of a 1919 Agreement between France and Britain. In the case of the land and water boundaries, the Court confirmed that the frontier follows the line of the watershed of the Tsikakir River and the Mou River, as the Agreement stipulated, and that would place the disputed land area under Nigeria. The Court noted further that the Lake Chad Basin Commission has been authorized by the riparian states to demarcate the boundaries in the areas not covered by agreements, and that the Commission should embark on that task. The decision on this issue was overshadowed by the ruling in favor of Cameroon on the Bakasi Island which falls in the oil-rich region of the Gulf of Guinea (International Court of Justice, 2002).

A third similar dispute arose between Benin and Niger over their borders across the Niger River sector and on the ownership of islands in the River. Niger based its claim on the theory of the deepest points of navigation in the river as constituting the boundaries. Benin on the other hand, claimed the borders to be the eastern bank of the river, thus resulting in the river falling entirely within its territories. The dispute was eventually referred by the two parties to the ICJ. The Court accepted Niger claim and ruled in June 2005 that the boundary should follow the main navigable channel of the Niger River. This would result in the disputed islands falling under the jurisdiction of Niger (International Court of Justice, 2005).

In September 2005, the ICJ registered a fourth similar dispute, this time from Central America. Costa Rica brought a case against Nicaragua over the San Juan River which forms the borders between the two countries. Costa Rica does not seem to dispute the ownership of the entire San Juan River by Nicaragua under an 1858 Treaty. Rather, Costa Rica is claiming that it has navigational rights under said Treaty and that Nicaragua is imposing a number of restrictions on its exercise of such navigational rights. Costa Rica requested the Court to adjudge and declare that, by its conduct, Nicaragua is violating the obligation to facilitate and expedite traffic on the San Juan River and allow Costa Rican boats and passengers to navigate freely without impediment for commercial purposes, including the transportation of passengers and tourists, without paying any charges. It is worth noting that the Court in the dispute involving Botswana and Namibia allowed Namibia the right of navigation on the whole of Chobe River. However, in the Costa Rica and Nicaragua dispute, Costa Rica is only demanding navigational rights, based on its interpretation of the Treaty, and historical facts, and circumstances. It may, however, take some time before a decision is issued by the Court on this case.

The issue of where to draw the borders across boundary rivers involves not only navigational rights, but also water rights – the country that owns the larger portion of the river expects to have more water rights than the other. It also involves other rights such as fisheries. As we have seen in two of the African cases, the claims also included ownership of islands. The decision of the ICJ on the Costa Rica-Nicaragua case may hopefully lay down detailed rules and procedures regarding boundary rivers and lakes that would provide clear guidance for other similar disputes.

#### **Disputes over Water Quality Issues**

The Rhine River which is shared by France, Germany, Luxembourg and the Netherlands is one of the first watercourses where detailed attention has been paid to the environment. Indeed, it is one of the most environmentally protected watercourses in the world. It is worth noting that the first legal instrument dealing with the protection of the Rhine against pollution dates back to 1963 when the Agreement Concerning the International Commission for the Protection of the Rhine was concluded. That Agreement was followed by the Convention of December 1976 for the Protection of the Rhine against Pollution by Chlorides, and the Additional Protocol of 1991 to the Convention. Those two agreements and the Protocol were complemented by the Rhine Action Programme of September 1987 and later by the Convention on the Protection of the Rhine that was concluded in 1999.

The 1999 Convention requires the parties to adhere to

the precautionary, polluter-pays and sustainable development principles. In addition, the Convention requires that the parties be guided, inter alia, by the principle of preventive action, principle of rectification, as a priority at source, and application and development of the state of the art and best environmental practice. A number of objectives are spelled out in the Convention. Such objectives include conserving, improving and restoring the most natural habitats possible for wild fauna and flora in the water, on the river bed and banks, and in adjacent areas, and improving living conditions for fish and restoring their free migration. They also include restoring the North Sea, in conjunction with the other actions to protect it. With all those details in place, it is surprising that the first quality related dispute to be adjudicated before an international tribunal would arise in connection with the Rhine.

The dispute arose between the Netherlands and France and involved interpretation of the Additional Protocol of 1991 to the Convention on the Protection of the Rhine against Pollution by Chlorides of 1976. After failing to resolve the dispute through negotiations, the two parties agreed to refer the dispute to the PCA which, similar to the ICJ, is also an international judicial organ situated at The Hague. The Netherlands claimed that the quantities of chlorides stored by France in the Rhine have well exceeded the amount provided for by the parties under the Protocol. The PCA concluded in March 2004 that for the period in question, as stated by the Netherlands, France has indeed exceeded the amount of chlorides it is allowed to store in the Rhine. Furthermore, the Court ruled that France should pay compensation for the excess amount that it has discharged in the Rhine (Rhine Case, 2004).

Because Europe is not facing serious disputes over water sharing, as is the case in most parts of the world, it has turned its full attention to water quality issues and has indeed gone a long way into protecting its international watercourses against all types of pollution. This has been achieved through detailed and comprehensive legal instruments, and effective enforcement mechanisms, coupled with the political will of the parties to adhere to such instruments and the judicial decisions resulting therefrom.

#### The Indus Baglihar Dispute: Role of Third and Fourth Parties

As discussed earlier, India and Pakistan concluded the Indus Waters Treaty in 1960 after lengthy and difficult negotiations mediated by the World Bank and spanning over almost a decade. The Treaty is one of the most comprehensive and complex legal instruments, consisting of 12 articles and eight annexures, covering about 150 pages. It is also signed by the World Bank for certain specified purposes. Most of the purposes of which the World Bank signed the Treaty have been completed. The only remaining role for the Bank relates to dispute settlement. Indeed, this is the only international water treaty to be signed by a third party (Salman, 2003).

The Treaty allocates three of the six rivers of the Indus River System to India (the Sutlej, the Ravi and the Beas – collectively called the Eastern Rivers), and the remaining three rivers to Pakistan (the Indus, the Jhelum, and the Chenab – collectively called the Western Rivers). However, the Treaty allows India certain uses of the Western Rivers, and also allows Pakistan certain uses of the Eastern Rivers. Since the permitted uses of the Western Rivers by India are more extensive than those of the Eastern Rivers by Pakistan, the Treaty includes two Annexures in this regard. Annexure C deals with "Agricultural Use by India from the Western Rivers," while Annexure D deals with "Generation of Hydro-electric Power by India on the Western Rivers." The Treaty establishes the Permanent Indus Commission and lays down detailed responsibilities for the Commission. Such responsibilities include examination of any question concerning the interpretation or application of the Treaty. If the Commission fails to resolve such a question, then the question becomes a "difference" and is referred to a "Neutral Expert."

Annexure F of the Treaty deals with the questions to be referred to the Expert, the appointment procedures and the expenses of the Expert. The Annexure states that the appointment of the Expert shall be made jointly by India and Pakistan, or by a person or body agreed upon by India and Pakistan. If the Parties fail within one month to make an appointment of the expert or to agree on a person or body to make such an appointment, then the appointment shall be made by the World Bank, in consultation with the parties. The Treaty specifies furthermore that if the difference falls outside the list of questions specified in Annexure F, or if the Expert so decides, then the difference will be deemed to be a dispute, and will be referred to a "Court of Arbitration." The procedures for constituting such a court are quite complex, involving both the World Bank and the United Nations, and are set forth in Annexure G to the Treaty (Salman, 2003).

In January 2005, Pakistan submitted a request to the World Bank asking the Bank to appoint a Neutral Expert under the Treaty. Pakistan claimed that a difference had arisen between India and Pakistan relating to the construction by India of a hydro-electric plant on the Chenab River, known as the Baglihar Project, in contravention of the Indus Waters Treaty. As specified earlier, the Chenab River is one of the three Western Rivers allocated to Pakistan. India, on the other hand, stated that the plant, being a runof-river, is allowed under the Treaty. Pakistan challenged this and insisted that the project would store water and control the flow of the Chenab River, and as such, it is not allowed under the Treaty. Thus, the issue relates to what the Treaty allows India to do on the rivers allocated to Pakistan, and essentially concerns water use and control.

After studying the various memoranda submitted by both parties, and after consultation with them, the Bank appointed a Neutral Expert to address the difference in May 2005. It should be pointed out in this regard that, according to the Treaty, the decision of the Neutral Expert is final and binding. It is not appealable to the Court of Arbitration dealt with under Annexure G of the Treaty. Rather, the process under the Court of Arbitration is separate and independent. The expenses of the Neutral Expert and any assistance required will be met from a trust fund established under the Treaty for this specific purpose, and managed by the World Bank. The Treaty lays down detailed provisions in this regard, including the eventual meeting of the entire cost of the Expert by the losing party. Thus, the trust fund is a perpetual one, unless the World Bank and the two countries decide to terminate it.

As indicated earlier, the Treaty is a lengthy and complex instrument, and the dispute settlement process is much more so. The gradual escalation of the points of contention between the parties from question to difference to dispute and the mechanism for settling each of them is quite unique. The Neutral Expert deals with differences that the Commission has addressed, but failed to resolve. However, the decision of the Neutral Expert is final and binding, and the Court of Arbitration has a parallel, rather than an appellate jurisdiction. With the Commission consisting of one member representing each of the two parties, it is very unlikely that the Commission would succeed in resolving any real questions. Still, this is the first time since the Treaty was concluded more than forty-five years ago that the World Bank has been called upon to exercise some of its remaining responsibilities under the Treaty. Interestingly, the Bank's role, as a third party, is to appoint and initially finance a fourth party whose mandate is to resolve the dispute. It is worth noting that the Treaty has not assigned the role of dispute settlement to the Bank itself, to the International Court of Justice, or to the Permanent Court of Arbitration. It remains to be seen how the Neutral Expert will conduct his responsibilities, how the Parties will react to his decision, and what contribution to the process of resolution of international water disputes this case may offer.

#### A New Brand of International Water Disputes: Organizations and Citizens of One State against Governments of Other States

The role of international water law, like the rest of international law, as a general rule, is to regulate the relationship between states. However, international law requires states not to discriminate on the basis of nationality or residence or place of birth in granting access to judicial or other procedures for persons who suffer serious transboundary harm as a result of activities related to an international watercourse (McCaffrey, 2001). Although this theory has not been tested, the situation is changing and the theory is now facing a reality check. Two recent cases will test the limits of this theory, and each could end up being a watershed in this field.

One of the two cases relates to the All-American Canal. This Canal was constructed in 1942 by the United States of America to carry water from the Colorado River to the Imperial Irrigation District of California, running fully within California. It is called the All-American Canal because it replaced the Alamo Canal that carried water from the Colorado River to the Imperial Valley of California, but ran through Mexico. It is worth adding that the Colorado River, as well as the Rio Grande and Tijuana River, are shared by the United States and Mexico. Those rivers are governed by a Treaty concluded in 1944 by the two countries. The All-American Canal, like the Alamo Canal, is unlined and provides recharge from seepage to the Mexicali Aquifer in the range of 68,000 acre feet annually. The Aquifer is used by the border communities in both the United States and in the Mexicali Valley in Mexico. The 1944 Treaty deals only with the Colorado surface water, and does not address issues of groundwater related thereto. Because of this large amount of seepage, the United States now plans to construct a new canal lined with impervious concrete, in place of the existing porous All-American Canal. The proposed concrete lined canal would essentially end the seepage that replenishes the Mexicali Aquifer, and "save" the 68,000 acre feet of water that seeps annually. The plan is to send the saved water to San Diego County residents in California (California Water, 2005).

In July 2005, a Mexican organization known as Consejo de Desarrollo Economico de Mexicali A.C. (CDEM) filed, along with two United States organizations (Citizens United for Resources and the Environment [CURE] and Desert Citizens Against Pollution [DCAP]), a class action law suit against the United States Government, the Secretary of the Department of Interior, and the Commissioner of the Bureau of Reclamation. The law suit was filed in the United States District Court in Las Vegas challenging the decision to construct the new concrete, impervious canal. The law suit alleges that the Mexicali Valley is a home to over 1.3 million people who are dependent on groundwater (well water) from the Mexicali Aquifer for a significant part of their irrigation and drinking water needs. Nurtured by this water, the Mexicali Valley has become an economically diverse and stable border region just south of the Imperial Valley in California, and both Valleys have interdependent and integrated economies and work forces. The suit further claims that for millennia the Colorado River and the Alamo tributary recharged the Mexicali Aquifer, and that groundwater recharge derived from seepage is essential to the sustainability of the Mexicali Aquifer and to maintaining water quality in the Aquifer.

The suit also alleges that the environmental impact study for the new canal is eleven years old and has not been updated, and the construction raises various and serious adverse impacts stemming from the lining of the canal. Such impacts relate to air quality, wildlife and habitat, as well as the failure to conduct meaningful public partici-

pation or studies for alternatives. With regard to the water issue, the suit claims that the diversion of the seepage water (which it claims to be 100,000 acre feet per year) from the Mexicali Valley to other uses "potentially renders unusable the entire Mexicali Valley aquifer, renders valueless the infrastructure improvements and land irrigated by seepage, and puts the economic viability of an entire economic region at risk. The above actions constitute an unconstitutional deprivation of property without due process of law in violation of the class' substantive and procedural rights." It lists four bases for supporting its claim to water rights of the seepage: (i) prior appropriation of the water from the canal seepage; (ii) estoppel by reason of the knowledge of all parties of the seepage, the reliance of the Mexicali residents on such water for over a century, the construction of extensive waterworks, pumping facilities and infrastructure to transport and utilize such water, and the hardship on the class; (iii) Mexican federal law that recognizes the entitlement to well water, as well as international comity; and (iv) international and equitable concepts of apportionment and comity. The suit requests that the United States Government be enjoined and restrained from construction of the new All-American Canal Project until a full hearing of the suit and also be enjoined and restrained from confiscating or re-distributing the water rights of the plaintiffs (CDEM, 2005).

This is an extremely novel claim. The coalition of claimants from across the borders may pre-empt, or at least weaken, any claims by the defendants that CDEM does not have a *locus standi* (or a right to sue) before the United States Courts. It may also make it difficult for the Court to pass a judgment (if indeed it does) for the United States plaintiffs alone and not to include the Mexican ones. Another interesting feature of the claim is that it was not initiated by the Mexican Government against the United States Government. Rather, it was initiated by Mexican citizens and an organization, and was being adjudicated before a United States District Court, and not before an international tribunal or by a third independent party. It is likely that the United States may simply claim that the seepage water has been allocated under the 1944 Treaty to the United States, and the United States is simply reclaiming that water. It may also argue, along those lines, that the issue is one of impacts of the canal, and not one of water rights. However, it remains to be seen how this suit will be decided and what precedent it will establish for these kinds of claims and claimants.

The other case is equally novel and involves United States organizations and citizens against the Mexican Government. Thus it is basically the reverse of the first case. This case involves the Rio Grande which forms the boundaries between the United States and Mexico for more than 1,200 miles and provides water for many purposes in the two countries. The water sharing of the Rio Grande is regulated, as stated earlier, by the 1944 Treaty between the two countries. This is the same Treaty that also regulates the sharing of the waters of the Colorado and Tijuana Rivers. The Treaty provides Mexico with two thirds of the flows that feed into the Rio Grande from the six major tributaries that enter from Mexico. The United States receives all of the flows from tributaries on the United States side, and the remaining one third from the six Mexican tributaries. Water delivery by Mexico to the United States from these six tributaries must average 350,000 acre feet per year, measured in five years cycles. If Mexico can not meet this obligation because of "extraordinary drought," it must make up the deficiency during the next five year cycle. Hence, the Treaty allows Mexico to accumulate a water debt. The procedures for repaying the debt have been established by the International Boundary and Water Commission established under the Treaty.

Prolonged periods of drought across the borders between Mexico and Texas during the early 1990s, compounded by population growth and extensive industrialization, resulted in considerable water shortages. Starting in 1992, Mexico claimed that "extraordinary drought" was preventing it from meeting its Treaty obligation of delivering 350,000 acre feet annually to the United States. By the end of the five year cycle (1992–1997), Mexico's water debt to the United States was estimated as one million acre feet. Although Mexico started repaying part of that debt, it was unable to meet its full obligations under the 1997–2002 cycle. Mexico claimed during negotiations with the United States that any deficit incurred during the 1997-2002 cycle could be deferred until the end of the 2002-2007 cycle. The United States, on the other hand, argued that the water debt incurred during the 1997-2002 cycle should be made up concurrently with the previous 1992-1997 water debt.

In January 2005 a number of irrigation districts, trusts and individuals in Texas (Bayview Irrigation District and others) submitted a request for arbitration against Mexico to ICSID. The request is filed under the provisions of Article 1120(1) (b) of the North American Free Trade Agreement (NAFTA), and is based on Mexico's failure to repay this water debt. The request alleges that each claimant is an investor and owner of an integrated investment which includes rights to water located in Mexico, facilities to store and distribute this water for irrigation and domestic consumption, irrigated fields and farms, farm buildings and machinery, and on-going irrigated agricultural businesses. It further alleges that the claimants have invested millions of dollars in integrated water delivery system, including pumps, aqueducts, canals and other facilities for the storage and conveyance of their water to the land on which it is used, including the substantial sums for the purchase of water rights, and the cost of its delivery and administration.

The request goes on to emphasize that each claimant's investment is entirely predicated on this right to receive water located in the Mexican tributaries and that such rights have long been recognized as property rights. The request asserts that the claimants' integrated investment meets the definition of the term "investment" contained under Article 1139 (g) of NAFTA. That Article defines investment to mean "real estate or other property, tangible or intangible, acquired in the expectation or used for the purpose of economic benefit or other business purposes." The claimants also argue that although the term investment is not defined in the ICSID Convention, their investment satisfies the factors for the working definition of investment set forth in treaties on ICSID and the Rules Governing the Additional Facility for the Administration of Proceedings by ICSID. Based on this, the claimants allege that Mexico has violated Articles 1102, 1105, and 1110 that provide that NAFTA Parties shall treat investors of another party no less favorable than they treat their own investors with respect to the establishment, acquisition, expansion, management, conduct, operation and sale, or other disposition of investments.

The request alleges that between 1992 to 2002 Mexico has captured, seized, and diverted for the use of Mexican farmers the foundation of their investment of approximately 1,219,521 acre feet of irrigation water located in Mexico and owned by the claimants, in violation of the 1944 Treaty. The claim stresses that through this diversion "Mexico drastically increased its irrigated agricultural production on the Mexican side of the Rio Grande, while the crops of the United States farmers in the Rio Grande Valley shriveled. Mexico thus treated the investments of the United States farmers less favorably than it treated its own investors." The claim also alleges that Mexico has violated the 1944 Treaty by constructing and operating seven dams on the tributaries of the Rio Grande that are collecting and diverting for use by its own nationals water rights belonging to the claimants, thus increasing the deficit flow to the claimants.

The Claimants estimate the economic value of their irrigation water in the lower Rio Grande Valley from 1992 to 2002 at \$350 to \$730 per acre foot, or a total of \$320,124,350 to \$667,687,930, for taking of their water, after accounting for a 25 percent loss through evaporation, diversion losses, and transportation losses (which results in 914,641 acre feet of water). The claimants also asked for interest on this amount accruing from October 2002 until the day of payment, costs of the attorneys, consultants, arbitration panel, and such other losses and expenses as are legally allowable, together with such further and additional relief as the Arbitration Tribunal may deem appropriate (Bayview, 2005).

ICSID agreed on July 1, 2005, to register the claim and start the arbitration proceedings. However, on September 30, 2005, the International Boundary Water Commission, Office of the Commissioner for the United States, released a statement indicating that Mexico has delivered to the United States sufficient volumes of water to pay off its debt in its entirety. The statement further clarified that the paid off debt as of October 1, 2004, stood as 716,670 acre feet.

This is indeed an extremely novel and interesting case. It shares the general similarity with the previous case of the coalition of claimants of Mexico and the United States in being a claim involving, *inter alia*, citizens of one country against the government of another country. However, whereas both claims stem from, and have basis in the 1944 Treaty, the Texan claimants, unlike the coalition of claimants in the Bayview case, chose to invoke NAFTA, as well as the Treaty. And whereas the coalition of claimants chose the United States courts for their case, the Texan claimants decided to take their case to ICSID.

It remains to be seen what effects the repayment by Mexico of its water debt will have on the claims. Will the claimants still go ahead with their claims for what they consider as financial losses during the preceding years, as well as the other claims? Assuming that they decide to proceed with the claims, it will be interesting to see how the ICSID panel will decide on the issue of its jurisdiction, as well as on the remaining substantive issues. Such substantive issues include whether citizens of one country have the right to invoke a Treaty concluded by their government, or whether that right belongs only to the government. The request for arbitration also raises the issue of whether the claimants should pursue their claims against their own government that granted them the water right in the first place, but failed to deliver that right, rather than against Mexico. It will also be interesting to see what the official position of the government of the United States will be on those claims.

#### The Private Sector Dimension: Multinational Corporations Against State Governments

As indicated in the previous part of this article, ICSID has registered the Bayview case against Mexico. This is not the only claim relating to a water dispute that is being arbitrated before ICSID. Indeed, there are other eight claims registered by ICSID involving investment disputes related to water and sewerage service contracts instituted by multinational corporations against governments. One of those claims is against Bolivia, (which relates to the famous Cochabamba dispute), and the other seven are against Argentina (ICSID Pending Cases, 2005). Each of those claims involves complex legal issues and instruments, including the bilateral investment treaty between the host country and the country where the corporation has its head office. They also involve issues of jurisdiction of ICSID, the applicable law, interpretation of the concession agreement between the country (or one of its political sub-divisions) and the multinational corporation, as well as the pertinent principles of international and domestic law.

ICSID is one of the five institutions of the World Bank Group. The other four are the International Bank for Reconstruction and Development (IBRD), the International Development Association (IDA), the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Corporation (MIGA). The Convention establishing ICSID (Convention on the Settlement of Investment Disputes between States and Nationals of Other States) entered into force in 1966. ICSID currently has 142 members. ICSID helps to encourage foreign investments by providing international facilities for conciliation and arbitration of investment disputes. Many international agreements concerning investments refer to ICSID arbitration facilities (World Bank, 2005).

However, it should be clarified that those water disputes that are being currently arbitrated by ICSID deal with water and sewerage service contracts and do not relate to the international aspects of the waters concerned, although the waters tapped may or may not be from an international watercourse. As such those disputes do not fall within the scope of this article, but rather relate to the complex and contentious issue of privatization of and the role of the private sector in water services. Yet, they still have an international perspective by virtue of the fact that one of the parties to the dispute, the multinational corporation, is instituting arbitration proceedings against a foreign government before an international body that is governed by its convention and rules.

The involvement of ICSID in water disputes, whether the waters are international or national, adds another dimension and complexity to such disputes. The Bayview case provides a very novel perspective, and could pave the way for future more innovative and unusual claims.

#### Conclusion

The above survey and analysis of international water disputes indicate a clear trend of expansion, complexity, and novelty of these disputes. It is noteworthy that all those disputes are quite recent; they erupted or were decided in the last ten years. They spread almost across the whole globe, except for the Middle East. It is not that there are no international water disputes there. On the contrary, such disputes in the Middle East are quite abundant and complex. However, there is no agreement to refer any of them to a third party, because one of the riparian states, or in some cases both of them, simply reject any kind of role for a third party. A number of those disputes are still to be decided, and such decisions, especially those from the ICJ, may provide guidance for similar situations in future.

The disputes discussed above are not related mainly to water quantity issues and the associated dams and diversion matters. They include water quality issues, the lines across boundary rivers where the borders between states fall and water rights and prior appropriation of such rights across borders. They also include claims for compensation by both individuals and legal entities against foreign governments, as well as navigational rights over border rivers. The parties are no longer one state against another state. Such parties now include individuals, legal entities and trusts, as well as multinational corporations of one state against another state. The settlement institutions have expanded beyond the ICJ to include the PCA, ICSID, as well as national courts and third and fourth parties.

Despite this expansion in claims, claimants, and dispute settlement institutions, one should underscore and commend the willingness of the parties to resolve their disputes peacefully and through judicial or arbitral means. As discussed above, in two of the three river boundary cases in Africa, the disputes went beyond demarcation of the borders, and involved islands in those rivers. Yet, despite the high stakes involved, no threats of war were pronounced, and the judicial process was allowed to run its course.

With water becoming increasingly a scarce resource and with the steady growth in population, disputes will continue to erupt and the claims will get more complex and novel. The failure of the world community to agree on a universal treaty to regulate the sharing and uses of international watercourses is quite unfortunate and has hindered cooperation on international watercourses. Undoubtedly, cooperation is a more effective way for managing disputes and for achieving win-win solutions for all the parties concerned. Cooperation can, and indeed should, go beyond the classic approach of sharing the waters, or the river basins, to sharing the benefits derived from such waters.

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