Dig Deep: Conflict Prevention through Protection of Vital Human Water Needs

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Dig Deep: Conflict Prevention through Protection of Basic Water Rights

The role of international water law in conflict prevention

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ABSTRACT

Deadly disputes over access to boreholes and wells are not uncommon in drought stricken or water scarce regions. Where livelihoods are at stake, human despair can become a cause of violent conflict. The case of Darfur has demonstrated that conflicts that emanate from situations of severe shortages of water do not always remain within local or national boundaries, but can spread across borders. This paper analyzes the contribution of international water law (IWL) to the prevention of conflicts caused at least in part by water scarcity. In line with the topic of the conference, the focus is on recent developments in international groundwater law; particular attention is accorded to recent improvements of legal mechanisms promoting conflict prevention that have been introduced by the 2008 Draft Articles on the Law of Transboundary Aquifers. Where water scarcity constitutes a potential cause for inter-state conflict, the principle of equitable and reasonable utilization of transboundary water resources and associated cooperation obligations can serve as useful means to anticipate conflicts. The 2008 Draft Articles have developed the traditional conception of this principle a step further and have recast it into an increasingly forward-looking principle by putting additional emphasis on future uses and intergenerational equity. The paper argues that these small alterations as well as the special weight the Draft Articles accord to vital human water needs in determining equitable and reasonable utilization mark an important contribution to the preventive qualities of IWL. In contrast to the 1997 UN Watercourses Convention, the provisions of the Draft Articles establish legal mechanisms by which the emergence of situations that could lead to conflict is already considered before disputes between users occur. It is argued that such techniques of shaping normative content should be kept in mind in order to anticipate future conflicts when negotiating new groundwater agreements.

Key words: international groundwater law, conflict prevention, equitable utilization, cooperation, vital human needs

1. WATER CONFLICTS AND THE ROLE OF LAW

Groundwater use has expanded rapidly in developed and developing countries alike due to an increase in human water demand and improvements in pumping technology. Globally, groundwater systems meet about one fifth of total water needs for all uses and provide almost 50% of drinking water supply (WWAP, 2009; Zeckster and Everett, 2004). At the same time, overexploitation of aquifers that lead to sinking water tables or disappearance of surface water flows has increasingly put human livelihoods at risk. Where the water situation has become so precarious that water supply no longer satisfies basic human and livestock needs, this situation has become a trigger for violent conflicts. Deadly disputes over access to boreholes and wells are common occurrences in water scarce regions. The case of Darfur has demonstrated that these conflicts are not always limited to the local or national levels, but can escalate across boundaries. In order to avoid the widely predicted "future water wars" becoming a self-fulfilling prophecy, countries need to adapt to changes in demand and enhance their methods of managing water resources responsibly and peacefully.

This paper analyzes the contribution of international water law (IWL) to the prevention of conflicts caused - at least in part - by water scarcity. International law is a means employed by States to administer their interdependence and transboundary water resources management through peaceful means. It provides procedures and mechanisms for dispute resolution and a series of tools for conflict

prevention, such as obligations regarding information exchange, notification, consultation and negotiation in good faith. The codification of general norms of IWL in the United Nations Convention on the Non-Navigable Uses of International Watercourses (1997) and the Draft Articles on the law of transboundary aquifers (2008) contributes to the strengthening of IWL's role in conflict prevention. It is argued that progressive evolution of the principle of equitable and reasonable utilization in the 2008 Draft Articles plays a particularly important role in this respect.

2. CODIFICATION AND SCOPE OF APPLICATION

International water law evolved over time according to the changing needs of societies and States. With expanding groundwater exploitation, the law applicable to international groundwater resources has received increasing attention over the course of the past decades. In 1973 the General Assembly (GA) asked the International Law Commission (ILC) to commence work on the progressive development and codification of customary rules of international water law. Based on the main concerns at that time, the mandate was to develop the law of non-navigational uses of international watercourses (GA Resolution 3071 (XXVIII)). The ILC elaborated a set of draft articles on that topic and recommended them to the GA for the elaboration of a convention in 1994 (ILC, 1994). These draft articles consider a large part of global groundwater resources, as does the Convention on the Law of the Non-navigational Uses of International Watercourses, which was subsequently adopted in 1997 (hereinafter "UN Watercourses Convention"). Article 2 of the UN Watercourses Convention defines "watercourses" as "system[s] of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus". This definition excludes fossil and recharging aquifers that are not linked to surface waters, such as the Qa-Disi aquifer between by Jordan and Saudi Arabia. At the time of adopting the draft articles on the law of non-navigational uses, the ILC considered that inconclusive State practice did not allow for the inclusion of such groundwater systems and that further analysis was required (Mechlem, 2003).

The ILC took up the topic of groundwater law again in 2002 under its work program on 'shared natural resources' (ILC, 2002). The scope of the draft articles on the law of transboundary aquifers (hereinafter "2008 ILC Draft Articles" in reference to the year they were adopted by the ILC) includes freshwater resources below the surface of land that can be technically or economically extracted (ILC, 2008). Article 2 defines an "aquifer system" as two or more hydraulically connected "permeable water-bearing geological formations […] and the water contained in the saturated zone of the formation". Aquifers and aquifer systems are transboundary when their parts are situated in different States. By including the geological formation of the saturated zone in the scope of application, instead of focusing only on the water resources contained therein, the 2008 ILC Draft Articles go beyond the scope of shared resources; geological formations form part of the physical territory of States. As integrative parts of the physical territory, they are not resources that are shared among States. The inclusion of the aquifer formation can be attributed to the special characteristics of groundwater resource occurrence; yet in purely legal terms it is not conclusive. While the International Court of justice has recognized in its decision on the *Pulp Mills on the River Uruguay case* that the waters flowing in international watercourses are a shared resource, a number of States continue to voice concern about applying the 'shared natural resources' concept to transboundary waters, and in particular to groundwater (Yamada, 2008; McCaffrey, 1986).

The UN Watercourses Convention and the 2008 ILC Draft Articles have been developed on the basis of State practice and agreements concerning individual hydrographic basins, as well as on agreements of regional scope. They prove their worth in two ways; on the one hand they constitute comprehensive codifications of general norms of IWL, on the other hand, they serve as reference documents for treaties agreed on the regional and basin level (Boisson de Chazournes, 2009). Both instruments apply to groundwater resources. Their scope of application overlaps with respect to transboundary aquifers systems that are related to international watercourses. The Convention also covers groundwater resources that are captured in an aquifer located entirely in the territory of one State and are at the same time connected to international watercourses, while the Draft articles

additionally regulate utilization of transboundary groundwater resources that are not related to bodies of surface water (McCaffrey, 2009).

3. STRENGTHENING OF THE PREVENTIVE FORCE OF IWL THROUGH THE 2008 ILC DRAFT ARTICLES

Codification of general norms of IWL assists in the harmonization of practices relating to sustainable management and protection of freshwater resources by way of delineation of general principles (Boisson de Chazournes, 2009).

The 2008 ILC Draft Articles follow in large part the codification of universal principles and norms contained in the UN Watercourses Convention. Most of the substantive articles of the 2008 document are based on provisions of the Convention; in addition, a number of provisions take the particular vulnerabilities and unique characteristics of aquifers into account and have refined the Convention's provisions accordingly (Eckstein, 2007; McCaffrey, 2009). These refinements strengthen the role of IWL in the prevention of conflicts. Of particular interest in this respect is the evolving definition of the principle of equitable and reasonable utilization introduced by the 2008 ILC Draft Articles.

Where water scarcity constitutes a potential cause for inter-State conflict, the principle of equitable and reasonable utilization of transboundary water resources can serve as useful means to anticipate conflicts. The implementation of this principle requires continued State cooperation. Equitable utilization of a watercourse is not a static state of affairs, it requires continuous adjustments in accordance with changes in the underlying determinants and conditions of the hydrographic system in question (McCaffrey, 2007). Cooperation obligations that emanate from this principle aim at continued engagement of concerned States and coordination of their activities through peaceful means. States are required to regularly exchange data and information and to notify other States of planned measures that might affect them. The establishment of joint management mechanisms is recommended, because experience has shown that cooperation and implementation of the principle of equitable and reasonable utilization is most effective when it is institutionalized.

3.1. A forward-looking approach

A comparison of the two documents reveals the ways by which the 2008 ILC Draft Articles have developed the traditional conception of the principle of equitable utilization a step further and have recast it into a more forward-looking principle. Additional emphasis has been put on future uses and intergenerational equity. This evolution can be explained by the fact that non-renewable groundwater resources and aquifers with very slow recharge rates are included in the scope of application of the Draft Articles. These resources are therefore particularly susceptible to over-exploitation.

As a novel enhancement, Article 4 - Equitable and Reasonable Utilization obliges States to establish a long-term utilization strategy that takes into account not only present but also future needs of aquifer States, and requires that utilization does not prevent "continuance of effective functioning" (Eckstein, 2007). The evaluation of what constitutes equitable and reasonable utilization of an individual system is the result of the consideration of a set of relevant factors, which have been identified in non-exhaustive lists (Art. 6 UN Watercourses Convention, Art. 5 2008 ILC Draft Articles). Pertinent factors include natural characteristics of the hydrographic system, social and economic needs of system States, population dependent on the system, as well as existing, potential and alternative uses and their effects on system States.

Just like the preceding provision, Article 5 of the Draft Articles adopts a forward-looking approach. Subparagraph (b) specifies that when considering social, economic and other needs of system States, it becomes necessary to take future needs into account. The consideration of future needs is not absent in the provisions of the UN Watercourses Convention; it is implied in the mandate to attain sustainable

utilization of the watercourses (e.g. Article 5 (1) UN Watercourses Convention). However, the explicit references to future needs in subparagraph (b) are important. The evolution of the principle of equitable and reasonable utilization by these insertions stresses the importance of considering the dynamic characteristics of freshwater systems during the process of treaty making. Experience in some river basins has demonstrated that project related treaties which fail to take future needs of other system States into account can complicate later cooperation efforts. They establish legal facts on the ground which can become difficult to overcome in the negotiation of subsequent treaties. The consideration of future needs of system States is a key to preventing water conflicts in the medium- to long-term. By adding these specificities, the ILC enhanced the role of IWL in conflict prevention.

3.2. Consideration of vital human needs

In developing of the Draft Articles, the ILC also strengthened this role in conflict prevention by another means; consideration of vital human needs has become part of the principle of equitable and reasonable utilization. As we have seen above, the satisfaction of vital human needs contributes to the prevention of water related conflicts. The ILC defines the satisfaction of these needs as the provision of sufficient water to "sustain human life, including both drinking water and water required for production of food in order to prevent starvation" (ILC, 1994).

While the UN Watercourses Convention recognizes the importance to take vital human needs into account with respect to water utilization, it does so within the context of its provision concerning the hierarchy of uses, rather than including it in its Articles outlining the principle of equitable and reasonable utilization. Multiple competing uses of international freshwater systems are a potential source for conflict. To mitigate possible tensions, IWL does not recognize a hierarchy among uses. The Convention introduced an exception to this principle; according to Article 10 vital human needs need to be given special consideration in case of a conflict between uses. The 2008 ILC Draft Articles adopt a new perspective on the protection of vital human needs; they place their protection and consideration within the process of determining equitable and reasonable utilization. While the weight given to the factors that are pertinent in assessing equitable and reasonable utilization is determined by its importance with respect to the characteristics of each individual aquifers system, Article 5 (2) stipulates that when "weighing different kinds of utilization … special regard shall be given to vital human needs". This paragraph is remarkable with respect to the evolution of IWL tools for conflict prevention. In contrast to Article 10 (2) of the UN Watercourses Convention, vital human needs are taken into account already before a conflict between uses occurs; they are considered earlier than that, i.e. already during the process of assessing uses with respect to their impact on equitable and reasonable utilization.

The priority for the protection of vital human needs is affirmed in the Draft Articles also by the refinement of rules regarding emergency situations (Article 17). Where an emergency occurs due to natural causes or human conduct and jeopardizes vital human needs, States are for the time of the emergency allowed to take all measures that are necessary to meet these needs, notwithstanding the obligations which might arise from the principle of equitable utilization and the obligation not to cause significant harm. Such a strong protection clause is missing in the corresponding Article 28 of the Watercourses Convention of 1997.

The influence that the codification work of the ILC has had on basin level treaties and the nurturing effect of the UN Watercourses Convention and the Draft Articles with respect to these instruments can be seen in some of the most recent water treaties regulating surface as well as groundwater resources. The emerging focus on satisfaction of vital human needs as a stabilizing factor for State relations has found reflection in the 2002 Senegal Water Charter and the 2008 Niger Basin Water Charter. Both treaties include provisions prioritizing satisfaction of vital human water needs. Moreover, taking into account current developments in the sphere of human rights law, these two treaties recognize a right to water of basin populations.

4. CONCLUSION

The satisfaction of a population's basic water needs mitigates the risk of political instability and water related conflicts. International water law addresses this causal relationship by putting increasing emphasis on the necessity to respect vital human water needs in the management of transboundary water resources. The UN Watercourses Convention established an exception to the principle that there exists no hierarchy between water uses by stipulating that in the event of conflict of uses special regard shall be given to vital human water needs (Boisson de Chazournes and Tignino: 2007). The 2008 ILC Draft Articles further enhanced the protection of vital human needs. According to its provisions, the priority of utilizations which satisfy vital human needs has to be taken into account even before a conflict between uses occurs. It emphasizes the fact that for sustainable and peaceful management of transboundary freshwater resources, the consideration of the basic water needs of the population must be part of the process of evaluating equitable and reasonable utilization. Moreover, the Articles stress the importance of looking at a change in circumstances in the conditions and uses of freshwater systems. Articles 5 and 6 introduce explicit references to the future water needs of aquifer States as pertinent factors for the assessment of equitable and reasonable use. This forward-looking approach should be kept in mind when negotiating new water agreements. International treaties are characterized by their longevity. Treaties which fail to take changing conditions into account can render future development and cooperation more complicated. The preventive force of international law comes to bear only where treaties address in an adequate way potential causes of conflicts as well as likely changes in circumstances.

Acknowledgements
The author would like to thank Laurence Boisson de Chazournes and Julian Wyatt for comments on earlier drafts of this article. Research funds have been provided by the Swiss National Science Foundation and the Fondation Boninchi.

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