BACKGROUNDER

Water Without Borders

As water quality degrades or the quantity available has to meet rising demands over time, competition among water users intensifies. This is nowhere more destabilizing than in river basins that cross political boundaries. But experience shows that in many situations, rather than causing open conflict, the need for water sharing can generate unexpected cooperation.

The circumstances are in fact ripe for cooperation. There are 263 international basins that cross the political boundaries of two or more countries. These basins, in which approximately 40 per cent of the world's population live, cover nearly one-half of the earth's surface area and account for an estimated 60 per cent of global freshwater flow. A total of 145 nations include territory within international basins, and 21 countries lie entirely within international basins.[1]

Depleted and degraded freshwater supplies caused by rapid population growth and poorly managed development already cause serious tensions among major water-users — farmers, industry and urban consumers – within many countries. Water that crosses national borders takes on an even more complex and strategic importance.

Individual countries have clear incentives to capture and use water before it goes beyond their political control. There is no immediate incentive to conserve or protect supplies for users beyond the national borders. Also, partly because in many places a river or lake is key to a nation's identity, ownership and control over waterways is considered crucial to national interests.

Aside from pollution, the most serious concerns for downstream countries are that large dams or diversion canals – for water supply, irrigation, hydropower or flood control — may reduce the quantity of water reaching them and the amount reaching the sea, affecting ecosystems along the way. As a result of management efforts to meet all demands, great rivers such as the Ganges and the Colorado no longer reach the sea at certain times of year. Virtually the entire flow of the Colorado River is captured and used, causing serious environmental consequences on land and cutting off nutrients to the sea, resulting in the decline of fish populations.

Learning to Share

Despite the complexity of the problems, records show that water disputes can be handled diplomatically. The last 50 years have seen only 37 acute disputes involving violence, compared to 150 treaties that have been signed. Nations value these agreements because they make international relations over water more stable and predictable. In fact, the history of international water treaties dates as far back as 2500 BC, when the two Sumerian city-states of Lagash and Umma crafted an agreement ending a water dispute along the Tigris River — often said to be the first treaty of any kind. Since then, a large body of water treaties has emerged. According to the Food and Agricultural Organization, more than 3,600 treaties related to international water resources have been drawn up since 805 AD. The majority of these deal with navigation and boundary demarcation . The focus of negotiation and treaty-making in the last century has shifted away from navigation towards the use, development, protection and conservation of water resources.

Legal agreements on water sharing have been negotiated even among bitter enemies and maintained even as conflicts have persisted over other issues. Cambodia, Laos, Thailand and Vietnam, supported by the United Nations, have been able to cooperate since 1957 within the framework of the Mekong River Commission, formerly known as the Mekong Committee, and they had technical exchanges throughout the Vietnam War. Since 1955 Israel and Jordan, with United States involvement, have held regular talks on the sharing of the Jordan River, even as they were until recently in a legal state of war. The Indus River Commission, established with World Bank support, survived two wars between India and Pakistan. A framework for the Nile River Basin, home to 160 million people and shared among 10 countries, was agreed in February 1999 in order to fight poverty and spur economic development in the region by promoting equitable use of, and benefits from, common water resources. This initiative, supported by the World Bank and the UN Development Programme, is a transitional arrangement until a permanent framework is put in place. The nine Niger River Basin countries have agreed on a framework for a similar partnership.

These cases reflect two important elements of international water resources cooperation: the need for an institution to effectively develop a process of engagement over time; and well-funded third-party support trusted by all factions. The discussion process often takes time — the Indus agreement took 10 years; the Ganges, 30; and the Jordan, 40 — because of the need to build trust and a sense of ownership of the process by the countries involved. Since the process is often lengthy, financial support is crucial. Despite the importance of this issue, donors contribute only a small proportion of total aid to shared water basin management.

More Needs to Be Done

The more than 3,600 agreements and treaties signed are an achievement in themselves, but a closer look at them still reveals significant weaknesses. What is needed are workable monitoring provisions, enforcement mechanisms, and specific water allocation provisions that address variations in water flow and changing needs.

The 1997 United Nations Convention on Non-Navigational Uses of International Watercourses is one international instrument that specifically focuses on shared water resources. It established two key principles to guide the conduct of nations regarding shared watercourses: "equitable and reasonable use" and "the obligation not to cause significant harm" to neighbours. However, it is up to countries themselves to spell out precisely what these terms mean in their watersheds. Only 12 countries have ratified the Convention, which requires 35 ratifications to enter into force.

There is a consensus among experts that international watercourse agreements need to be more concrete, setting out measures to enforce treaties made and incorporating detailed conflict resolution mechanisms in case disputes erupt. Better cooperation also entails identifying clear yet flexible water allocations and water quality standards, taking into account hydrological events, changing basin dynamics and societal values. Finally, international watercourse development may require some compensation mechanisms, such as payments for transfer of water rights.

[1] *Meredith A. Giordano and Aaron T. Wolf, "Sharing waters: Post-Rio international transboundary water management", Natural Resources Forum Vol. 27: No. 2 (forthcoming)*

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