

Navigating Peace

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Water Can Be a Pathway to Peace, Not War

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“Water wars are coming!” the newspaper headlines scream. It seems obvious—rivalries over water have been the source of disputes since humans settled down to cultivate food. Even our language reflects these ancient roots: “rivalry” comes from the Latin *rivalis*, or “one using the same river as another.” Countries or provinces bordering the same river (known as “riparians”) are often rivals for the water they share. As the number of international river basins (and impact of water scarcity) has grown so do the warnings that these countries will take up arms to ensure their access to water. In 1995, for example, World Bank Vice President Ismail Serageldin claimed that “the wars of the next century will be about water.”

These apocalyptic warnings fly in the face of history: no nations have gone to war specifically over water resources for thousands of years. International water disputes—even among fierce enemies—are resolved peacefully, even as conflicts erupt over other issues. In fact, instances of cooperation between riparian nations outnumbered conflicts by more than two to one between 1945 and 1999. Why? Because water is so important, nations cannot afford to fight over it. Instead, water fuels greater interdependence. By coming together to jointly manage their shared water resources, countries can build trust and prevent conflict. Water can be a negotiating tool, too: it can offer a communication lifeline connecting countries in the midst of crisis. Thus, by crying “water wars,” doomsayers ignore a promising way to help prevent war: cooperative water resources management.

Of course, people compete—sometimes violently—for water. Within a nation, users—farmers, hydroelectric dams, recreational users, environmentalists—are often at odds, and the probability of a mutually acceptable solution falls as the number of stakeholders rises. Water is never the single—and hardly ever the major—cause of conflict. But it can exacerbate existing tensions. History is littered with examples of violent water conflicts: just as Californian farmers bombed pipelines moving water from Owens Valley to Los Angeles in the early 1900s, Chinese farmers in Shandong clashed with police in 2000 to protest government plans to divert irrigation water to cities and industries. But these conflicts

The environmental Change and Security Program's Navigating Peace Initiative, supported by the Carnegie Corporation of New York and led by eCSP Director Geoffrey Dabelko, seeks to generate fresh thinking on the world's water problems in three areas:

- expanding opportunities for small-scale water and sanitation projects;
- analyzing water's potential to spur both conflict and cooperation; and
- Building dialogue and cooperation between the United States and China using lessons from water conflict resolution.

number of Countries Sharing a river Basin

NUMBER OF COUNTRIES	INTERNATIONAL BASINS
3	Asi (Orontes), Awash, Cavally, Cestos, Chiloango, Dnieper, Dniester, Drin, Ebro, Essequibo, Gambia, Garonne, Gash, Geba, Har Us Nur, Hari (Harirud), Helmand, Hondo, Ili (Kunes He), Incomati, Irrawaddy, Juba-Shibeli, Kemi, Lake Prespa, Lake Titicaca-Poopo System, Lempa, Maputo, Maritsa, Maroni, Moa, Neretva, Ntem, Ob, Oueme, Pasvik, Red (Song Hong), Rhone, Ruvuma, Salween, Schelde, Seine, St. John, Sulak, Torne (Tornealven), Tumen, Umbeluzi, Vardar, Volga, and Zapaleri
4	Amur, Daugava, Elbe, Indus, Komoe, Lake Turkana, Limpopo, Lotagipi Swamp, Narva, Oder (Odra), Ogooue, Okavango, Orange, Po, Pu-Lun-T'o, Senegal, and Struma
5	La Plata, Neman, and Vistula (Wista)
6	Aral Sea, Ganges-Brahmaputra-Meghna, Jordan, Kura-Araks, Mekong, Tarim, Tigris and Euphrates (Shatt al Arab), and Volta
8	Amazon and Lake Chad
9	Rhine and Zambezi
10	Nile
11	Congo and Niger
17	Danube

Note: From "International River Basins of the World" by Aaron T. Wolf et al., 1999, *International Journal of Water Resources Development* 15(4), 387-427. Adapted with permission of the author.

usually break out *within* nations. International rivers are a different story.

The world's 263 international river basins cover 45.3 percent of Earth's land surface, host about 40 percent of the world's population, and account for approximately 60 percent of global river flow. And the number is growing, largely due to the "internationalization" of basins through political changes like the breakup of the Soviet Union, as well as improved mapping technology. Strikingly,

territory in 145 nations falls within international basins, and 33 countries are located almost entirely within these basins. As many as 17 countries share one river basin, the Danube.

Contrary to received wisdom, evidence shows this interdependence does not lead to war. Researchers at Oregon State University compiled a dataset of every reported interaction (conflictive or cooperative) between two or more nations that was driven by water in the last half century

