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# Spectre of 'water wars' distracts from urgent need for cross-border cooperation

## Cooperation over water is more pervasive than conflict—and more essential than ever, says 2006 Human Development Report

**Cape Town, 9 November 2006**—Challenging predictions that increasing competition for water will inevitably provoke armed conflicts, the newly released 2006 Human Development Report finds that cross-border cooperation over water resources is already far more pervasive and successful than is commonly presumed, offering many models for the resolution of future international water disputes.

Ninety percent of the world's population lives in countries that share their water supplies with other countries. But the new Human Development Report, entitled *Beyond scarcity: Power, poverty and the global water crisis*, makes clear that while this interdependence can give rise to political tension across borders, most shared water resources are managed peacefully through cross-border engineering and diplomacy.

In the past 50 years, there have been 37 cases of reported violence between states over water; all but seven incidences took place in the Middle East. Yet over the same period, more than 200 treaties on water were negotiated between countries, says the Report.

And India and Pakistan, despite two cross-border wars and constant geopolitical tension, have for half a century jointly managed shared watersheds through the Permanent Indus Water Commission.

That said, the need for increasing cooperation across national borders to ensure water security for the poor is more tangible than ever, because by 2025, over three billion people could be living in countries under water stress. False alarms of looming wars over water only distract from the real threat posed by the global water crisis to human development—a threat rooted in power, poverty and inequality, stress the authors.

“Managing shared water can be a force for peace or for conflict, but it is politics that will decide which course is chosen,” said Kevin Watkins, lead author of the Report.

### The road ahead

The Report identifies two broad objectives in transboundary water governance: replacing unilateral action with multilateral cooperation, and putting human development concerns, not power and politics, at the centre of the debate. Getting there will require backing away from rigid sovereignty claims, strengthening political leadership, and finding a better balance of power, says the Report, which recommends increased emphasis on the following:

- **Increasing political negotiations to build trust and increase legitimacy:** Cross-border cooperation on water depends on the willingness of riparian states to share governance. Here, international support can help create an environment for successful cooperation, say the authors.

- **Assessing the human-development needs and identifying potential mutual gains:** Political leaders should identify at a basin level shared goals for human development—in poverty reduction, employment creation and risk management—and make this an integral part of river basin planning.
- **More support for river-basin organizations, including broadening their mandates and strengthening their capacity to enforce treaties:** As river-basin cooperation evolves, political leaders must raise the bar to an appropriate level of ambition. Considering its extensive experience in transboundary water management, the European Union, through partnerships with the United Nations Development Programme and the World Bank, could do far more to support institutional development in poor countries, says the Report.
- **Increased financing for transboundary water management:** Of the US\$3.5 billion in international aid spent on water and sanitation, less than \$350 million is allocated to transboundary water resources. The Report states that donors should aim to substantially increase this amount, but in the interests of ownership, riparian countries have to bear a substantial part of the financial burden.

### Why tension over water?

Water is the ultimate fugitive resource: Rivers, lakes and aquifers cross political boundaries without passports or documentation. One hundred forty-five countries share what are known as ‘transboundary’ water basins—catchments or watersheds, including lakes and shallow groundwater, which are shared by neighbouring countries. And the number is growing, largely because of the breakups of the former Soviet Union and former Yugoslavia. In 1978, there were 214 international basins; today there are 263.

Shared water has always brought potential for competition. Indeed, the English word rival comes from the Latin *rivalis*, meaning ‘one using the same river as another.’ Problems start when water—from rivers, lakes, aquifers or wetlands—is not managed properly. While most countries have institutional rules and regulations for allocating water and resolving disputes within their boundaries, cross-border mechanisms are much weaker, and the mix of water stress and flimsy institutions can carry a real risk of conflict.

### The Middle East

Nowhere is this more starkly apparent than in the Occupied Palestinian Territories. The Palestinian population is half the size of Israel’s, but consumes only 10–15 percent as much water. In the West Bank, Israeli settlers use nearly nine times as much water per person as Palestinians. In fact, Palestinians experience one of the highest levels of water scarcity in the world.

Both physical availability and politics contribute to the problem. Water shortages hamper farmers’ ability to produce food and earn a living, while existing water rules lock in unequal, and what is perceived as unjust, access to shared aquifers.

But this doesn’t have to be the case. Better cooperation could solve the problem, as other regional examples attest. In 1994, for example, Israel and Jordan signed an accord that allows Jordan to store winter runoff in Israel’s Lake Tiberias. The agreement also allows Israel to lease from Jordan a number of wells to draw water for agricultural land.

What the agreement did not count on was the worst drought on record in 1999, which led to tensions as water deliveries to Jordan fell. Still, the agreement itself remained intact—demonstrating the commitment by both sides to cooperate over water.

Just as the Israel-Jordan water accord was a companion to the peace agreement between the two countries in 1994, a final political settlement between Israel and the Occupied Palestinian Territories would need to include a pact on their shared water resources, the Report’s authors contend.

Water scarcity is an acute problem throughout the Middle East. Iran and Iraq are the only countries in the region above the threshold of water stress, the Report points out, and 90 percent of the population of the Middle East and

North Africa will live in water-scarce nations by 2025. But the arid region is far from alone in its need to find equitable solutions to water-stress problems.

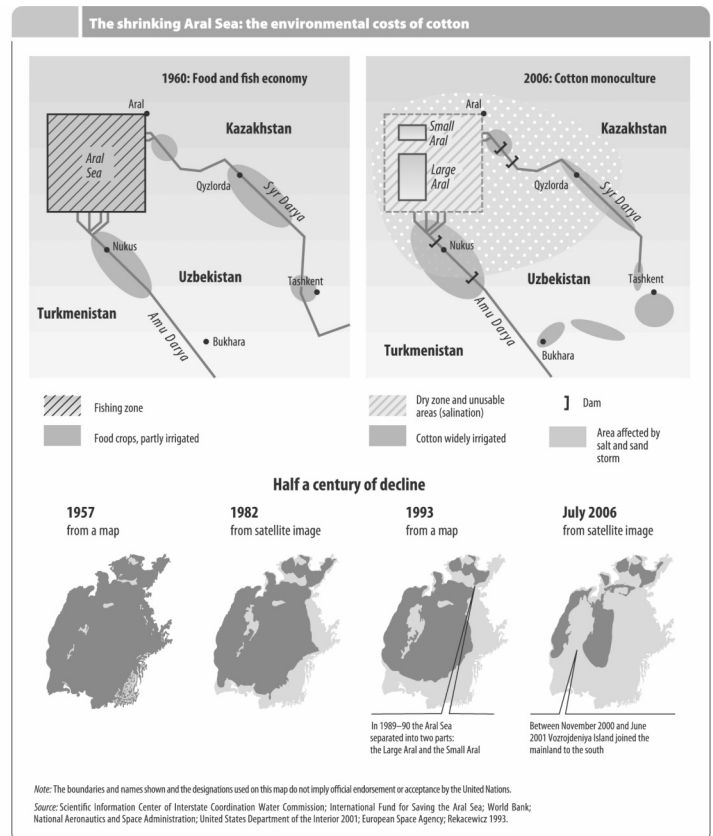
## The Aral Sea

For countries like Bangladesh, which depends on India for 91 percent of its water to irrigate crops and replenish aquifers, the case is clear for cross-border cooperation on water. For others, recognition of the need to cooperate has come much too late. Such is the case of the Aral Sea, in Central Asia.

One of the world's most visible environmental disasters, the Aral Sea bears testimony to the cost of non-cooperation in transboundary water management. The diversion of water for half a century to support cotton through an inefficient irrigation system strangled the Aral Sea, then the world's fourth-largest lake. By the 1990s it was receiving less than one-tenth of its previous flow—and sometimes no water at all.

Even after independence from the Soviet Union, the new republics failed to cooperate in an effective manner, persisting with competing irrigation expansion schemes without any regard to their impacts downstream. The demise of the sea has been a social and environmental catastrophe.

Cotton yields have fallen by a fifth since the early 1990s and the loss of four-fifths of all fish species has ruined the once-vibrant fishing industry in downstream provinces. People in Qyzlorda in Kazakhstan, Dashhowuz in Turkmenistan and Karakalpakstan in Uzbekistan receive water contaminated with fertilizers and chemicals, unsuitable for human consumption or agriculture. Infant-mortality rates have reached 100 per 1,000 live births in some regions—higher than the average for South Asia. And some 70 percent of the 1.1 million people in Karakalpakstan suffer from chronic maladies—respiratory illnesses, typhoid fever, hepatitis and oesophageal cancers.



The case of the Aral Sea perfectly illustrates how not to cooperate. It highlights that the way an upstream country uses water affects the environment and water quality for a downstream country; that the retention of water for irrigation or power generation in one country restricts flows downstream for farmers and the environment in another.

However, the Report notes that in an encouraging development illustrating the potential impact of rational cooperation, some Aral Sea nations have in the past few years begun to reverse some of the damage, protecting watersheds and controlling drainage out of the Aral Sea with new dams and canals, with the result that water levels are rising for the first time in a generation.

There are four main obstacles to cooperation across borders over water, according to the authors: competing claims to water and perceived national sovereignty imperatives; weak political leadership and vision; asymmetries of power; and nonparticipation in international water-basin initiatives. Each of these will have to be addressed to avert conflict, limit environmental degradations and ensure shared water is used to maximize opportunities for human development.

## Case for cooperation

In theory, the most logical approach to effective cross-border water management would be countries trading agricultural resources, hydropower and other services according to their comparative advantage in water use. To take an obvious example, hydropower is more cost-effective in mountainous regions where water gains momentum flowing downhill while irrigation produces better results in valleys and plains; trading hydropower for agricultural goods is one way of tapping into this comparative advantage.

Yet in practice, most river basins lack the institutions to resolve differences and coordinate shared resources, and factors such as trust and strategic concerns weigh heavily in government policy.

The potential gains from transboundary water management are huge. For example, Brazil and Paraguay resolved a 100-year-old boundary dispute by signing the Itaipu Accord. Financed largely by Brazilian investment, the Itaipu dam became one of the world's largest hydropower plants, meeting a quarter of Brazil's energy consumption and serving as Paraguay's largest source of foreign-exchange earnings.

Elsewhere, the Southern African Development Community has led a process of basin-wide cooperation for the region's 15 transboundary rivers, focusing on collecting information and developing infrastructure to improve energy and food security for the vulnerable while expanding water-supply schemes to small border towns and villages, in addition to strengthening the capacity of river-basin organizations to protect their quality of and access to water.

Throughout history, cooperation over shared water resources has been the rule, not the exception. The 2006 HDR argues that now, with more people competing for resources than ever, more ambitious and less fragmented approaches to water governance are in the interest of everyone's long-term security.

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**BROADCAST FOOTAGE ON THE 2006 HDR IS AVAILABLE under embargo from Wednesday, 1 November at <http://hdr.undp.org/hdr2006/media>.** For broadcast enquiries, please contact Boaz Paldi, [boaz.paldi@undp.org](mailto:boaz.paldi@undp.org), +1 917 213 7520.

**ABOUT THIS REPORT:** The Human Development Report continues to frame debates on some of the most pressing challenges facing humanity. It is an independent report commissioned by the United Nations Development Programme (UNDP). Kevin Watkins is the Lead Author of the 2006 report, which includes special contributions from U.K. Chancellor Gordon Brown, Nigeria's Finance Minister Ngozi Okonjo-Iweala, President Lula of Brazil, Former U.S. President Carter, and UN Secretary-General Kofi Annan. The Report is translated into more than a dozen languages and launched in more than 100 countries annually. Further information can be found at <http://hdr.undp.org/hdr2006>. The 2006 Human Development Report is published in English by Palgrave Macmillan.

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