

Cross-border water cooperation and peacebuilding in the Middle East

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Jordan, Israel, and the occupied Palestinian territory all have arid climates. The Falkenmark water stress indicator shows that water resources available *per capita* are far below the chronic water scarcity limit and that evaporation exceeds rainfall for most of the year.

Such limited water resources must also be shared between neighbours with at best distant, at worst highly antagonistic relations, which has led to disputes over water issues, especially between Israel and its neighbours. The single most important surface water source for the region is the Jordan River. Water development efforts on all sides of the river have today reduced flow to only 10 per cent of its natural discharge below Lake Tiberias. What little remains is of the poorest quality. Aquifers provide over 50 per cent of the freshwater supply for Israel and Jordan and almost total consumption in the Palestinian territory. Aquifers on all sides are threatened by overpumping and pollution, mainly through untreated wastewater and agricultural leakage.

The political importance of water between Arabs and Israelis dates back to the 1920s and is rooted in the Zionist movement's development plans, which were heavily dependent on water for large-scale irrigation and hydropower. Arab-Israeli relations concerning water have been strained since the late 1940s, when the parties first began working separately on water development plans. Water issues have repeatedly been triggers of conflict and of political and military action in the Jordan Basin, although its relative weight within the mix of causal factors in conflict is moot.

Water access: regional inequalities

Water resource development and management and access to freshwater is highly asymmetric between Jordan, Israel and the Palestinian territories. Table 3 shows the water situation in terms of the total actual renewable water resources, domestic *per capita* water consumption and access to 'improved drinking water and sanitation'.

Table 3. *Overview of the water situation in Israel, Jordan, and the Palestinian territories*

	Israel	Jordan	Palestinian territory
TARWR^A (m³ per capita per year)	250	160	41
Domestic water consumption (litres per capita per year)	240-280 ^B	94 ^C	60 ^B
Access to improved drinking water (percent of population)	100 ^E	91 ^D	75 ^D
Access to improved sanitation (percent of population)	100 ^F	85 ^E	35 ^D

Sources: ^A UNESCO (2006); ^B Fröhlich (2008); ^C Courcier et al. (2005); ^D World Bank (2007); ^E WHO Data (2006); ^F Globalis (2002).

The Total Actual Renewable Water Resources (TAWR) figures show *de facto* water availability for each party, reflecting natural conditions as well as distribution patterns of shared resources. These numbers therefore also reflect the unequal distribution of trans-boundary water resources, especially among Palestinians

and Israelis, with Israel consuming about 85 per cent of the shared resources.

Israel gained control over all Palestinian water resources in the 1967 occupation. Under military orders a permit system was established for drilling new wells, and pumping quotas were assigned to restrict water use. Israel permitted the drilling of only 23 new wells between 1967 and 1990, mainly to replace older ones. In addition, Israel drilled new wells for Israeli settlements and consequently uses the lion's share of groundwater recharged in the West Bank. Since 1967 Palestinians have further been denied access to the Jordan River and its water resources.

Water disputes between Israel and Jordan focus on diverting water from the Jordan Basin. The Israeli–Jordanian Peace Treaty signed in October 1994 includes extensive water provisions, such as allocation of rights to water resources in the Jordan Basin, as well as joint projects to develop additional water resources and prevent pollution. Implementation of the Peace Treaty's water provisions has been problematic, however. The former senior negotiator in Jordan's delegations to the Middle East Peace Process, Munther Haddadin, has stated that several of the water provisions from Israel to Jordan have not yet been implemented as stipulated within the agreement. And problems continue to arise, mainly due to ambiguities in the treaty text.

Potential for regional cooperation

Solving water problems is of common interest to Israelis, Jordanians and Palestinians. In 1992 a Multilateral Working Group on Water Resources was established as part of the multilateral track aimed at enhancing the Middle East peace process. Implementation of water-related projects involving Palestinians, Israelis and Jordanians has been seen as a hopeful sign for broader peacebuilding efforts and related projects have received substantial funding from the international donor community. Since then, governmental and non-governmental institutions have started several bilateral and regional projects to promote water cooperation in the region.

The approaches taken to promoting water cooperation range from institutionalised official communication between government representatives (eg the Joint Water Committees that have been established after the peace process in the 1990s between Israel and Jordan, and Israel and the Palestinian Authority respectively), to exchange of expert knowledge and data (eg the Regional Water Data Banks Project (RWDBP) working in collaboration with national water agencies), and local-level collaboration (eg the Good Water Neighbours initiative by Friends of the Earth Middle East (FoEME) that works with local communities).

While the initiatives show that dialogue on water is possible among Palestinians, Jordanians, and Israelis, they also demonstrate that joint water initiatives soon hit a roadblock when it comes to cooperation on issues that tackle actual water resources management. Water projects face several barriers to cooperation, and today, almost 20 years after the Oslo peace process began, substantial cooperation in water resources management still remains limited.

Asymmetric and politicised water relations

Water has become a very political issue in the region. The fact that the Palestinians do not hold power over water resources in their territory makes cooperation in an equal partnership near impossible. Any project working on water is difficult to separate from questions of water rights and justice. The importance of water for the ideology of Zionism and Arab nationalism further leads to securitisation and politicisation on all sides. This puts a limit to initiatives that aim to promote cooperation at the technical level, as the decision on wastewater management, for example, is taken at the political level.

Asymmetrical power relations among the three parties determine water relationships at the political level, such as in the Joint Water Committees, which do not work effectively. Different levels of capacity in human and financial resources mean that cooperative efforts at the technical level are problematic, as they can make it difficult to choose suitable technologies, for example databases and systems to support decision-making that are appropriate for all parties. Further, unequal access to water results in diverging interests making it difficult to identify projects that can be equally beneficial for all parties. This can cause frustrations for both the weaker and the stronger party. At the level of project implementation, asymmetries are evident in the logistics, such as different obstacles for travelling to joint meetings.

Communities and experts agree that access to water cannot be solved unilaterally. Still, spill-over of cooperative behaviour on the local and technical levels towards higher political spheres is difficult to achieve in the centralised water management systems existing in Israel, Jordan and the Palestinians territories. While water cooperation initiatives regularly achieve individual changes of perception of 'the other', as well as creating personal relationships, this does not automatically add up to societal change. For this to happen, change at the individual level needs to be sustained over time, in order to have an impact on the individuals' behaviour and to gradually extend to other people and to promote change on the socio-political level.

The asymmetries described above, as well as the parties' different priorities and needs, create diverging expectations

and perceptions with regard to cooperation. When asked for their needs related to environmental peacebuilding efforts, interviewees in Israel, Jordan and the Palestinian territories broadly indicated very different priorities: Jordanians focused on economic development and free movement of people and goods; Israelis concentrated on reconciliation and improved environmental management; and Palestinians stressed the importance of access to water and land rights, as well as the ending of occupation. Managing high and often different expectations poses a major challenge. The goals and possibilities of initiatives need to be transparent and clear in order to prevent frustrations on all sides. Otherwise, mounting frustrations can lead to failure of cooperative efforts.

Recommendations for international policy

Address existing asymmetries. Any initiative that aims to promote the links between regional water cooperation and peacebuilding in the Middle East must take account of existing asymmetries with regard to human and financial capacities, as well as political power. These asymmetries need to be addressed in the design and implementation of initiatives in order to ensure that cooperation provides at least mutual – if not equal – benefits, and to prevent asymmetric power relations favouring one party. It is essential that the stronger party does not dominate the cooperative process and that project goals respond to the needs of weaker parties as well. Capacity-building to overcome asymmetries must be complemented or coordinated with initiatives advocating for empowerment of the parties.

Promote regional water cooperation towards peacebuilding and human security. Lack of political cooperation can impede technical solutions to existing water problems and can limit the effectiveness of water cooperation with regard to sustainable water management. A lack of political will for cooperation can also limit the impact of technical and civil-society initiatives. Donors should take an active role in promoting regional water cooperation with the national governments and authorities – considering the mutual benefits it offers for economic development, human security and peace in the region.

Advocate for the empowerment and involvement of water users and stakeholder groups in the process of developing water

policies and cooperative political frameworks. This could help to transfer the successes of local and technical water cooperation initiatives to the political level. Working towards improving international relations should thus go hand in hand with improving national and local water management institutions and practices, eg by promoting institutional frameworks that allow for systematic involvement of stakeholder groups.

Provide ongoing funding, even when conflict escalates.

Examples of water cooperation show that collaboration and communication channels could be maintained even when the political peace process collapsed with the outbreak of the second Intifada. While this alone does not constitute an objective, it shows the importance of maintaining funding, even in times when the conflict escalates, to allow initiatives to continue their ever more important work towards cooperation in water resources management.

Do not confuse impartiality and appeasement regarding abuses and injustices committed by parties. If opportunities to express concerns about inequalities and human suffering are not offered in cooperative processes, technical discussions on environmental cooperation can easily become infected by political issues.

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