



Conflict Factsheet

Israel-Palestine: Water Sharing Conflict

Type of conflict
Main

Intensity
1.5

Conflict Locality
Western Asia

Time
1948 –ongoing

Countries
Israel, Palestine

Resources
Agricultural / Pastoral Land, Water, Ecosystem Stability



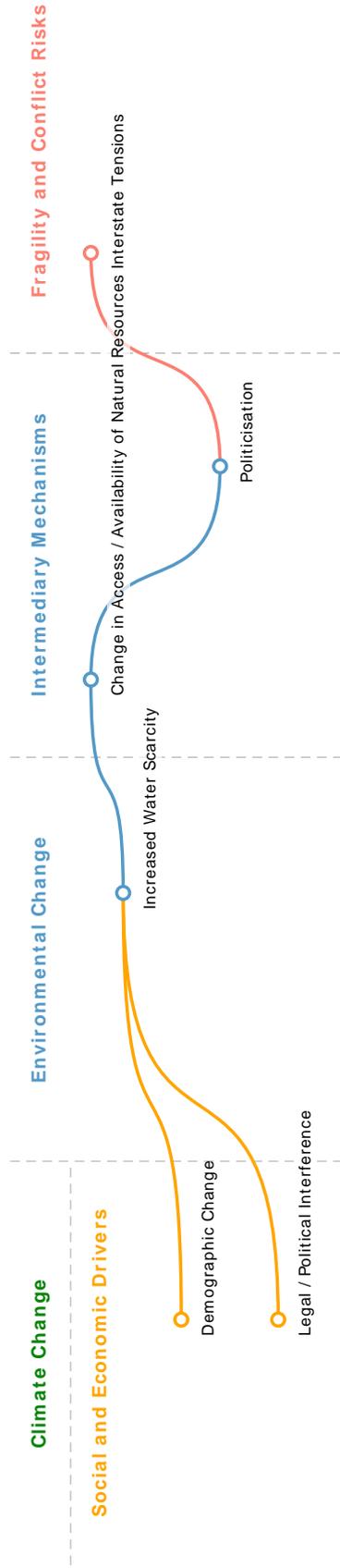
Transboundary
water
management

Conflict Summary

Water sharing issues form an important part of the Israeli-Palestinian conflict. The 1990s in particular witnessed extensive efforts to reach a peace agreement and to cooperate on water sharing issues. Yet in the context of a stalled peace process, both sides have failed to isolate the issue of water from the conflict.



Conceptual Model



Context Factors



Agricultural / Pastoral Land, Water, Ecosystem Stability

History of Conflict
Power Differential



Conflict History

Since the creation of Israel in 1948, Israeli-Palestinian relations have remained contentious. At least since the six-day war in 1967 and the nationalisation by Israel of water resources in the occupied territories, water has had a prominent place in the conflict. The 1990s in particular witnessed extensive efforts to reach a peace agreement, in which cooperation on water sharing and management played a prominent role. Yet the political antagonism between both parties has stymied joint water-sharing and water-protecting efforts until today. This case study will focus on the water sharing aspect of the conflict (for water quality issues, see [here](#)).

Conflict: geographical context

Israel and Palestine share three main water sources. These are the Jordan River basin; the Coastal Aquifer – with Israel upstream and Gaza downstream; and the Mountain aquifer, which starts in the heights of the West Bank and flows to the Jordan Valley. Israel has limited water resources and, to a significant extent, relies on water from the Palestinian territories for its supply, which used to provide 40% of its water uses ([Lowi, 1993](#); [Gleick, 1994](#)). Amongst these water resources, Israel and Palestine's water supply mainly comes from underground water ([Isaac, 1994](#)). Over the last years, Israel's water scarcity is becoming less problematic with the advent of large-scale desalination.

Water resources: a primary source of contention

After the 1967 six-day war, Israel occupied the West Bank and Gaza Strip and nationalised the water resources of the occupied territories ([ICE, 1997](#)). Since then, control of these aquifers, and in particular of the mountain aquifer, has been a major source of contention between the parties ([Gleick, 1994](#); [Baumgarten, 2009](#)). Israel has been restricting Palestinian water use by obligating Palestinians to request authorisation prior to any water-development constructions – such as the drilling of new wells – and by using quotas to limit Palestinians' water pumping ([Isaac, 1994](#)). Whilst authorisations to dig new wells were rarely granted to Palestinians, 36 new wells were drilled in Jewish settlements on the West Bank between 1967 and 1989 ([Lowi, 1993](#)).

Moreover, the price paid by Palestinians for water was three times the rate applied in Jewish settlements ([Isaac, 1994](#)). Scholars have pointed out that Israel has been over-pumping aquifers since 1970 to cope with rapid population growth and the expansion of areas under irrigation in Israel since 1949 ([Lowi, 1993](#)). Meanwhile, water restrictions imposed on Palestinians caused water deficiencies in the West Bank and the Gaza strip ([Isaac, 1994](#)).

The situation provides a good illustration of the concept of resource capture – according to Homer-Dixon's theory – on the part of Israel at the expense of Palestinians in the occupied territories. The greater the control of Israel over scarce water has led to an increase in structural scarcity amongst Palestinians ([Homer-Dixon and Percival, 1995](#)). Palestinians perceived this resource capture as a "theft" ([Cole, 1993](#)).

Israeli-Palestinian negotiations and the second Intifada



The recognition of Israel by Yasser Arafat – leader of the Palestinian Liberation Organisation –, and the election of Yitzhak Rabin as Israel's Prime minister in 1992 opened new opportunities for peace and cooperation between both countries. This rapprochement between Israel and Palestine had been facilitated by the 1979 Peace Treaty between Egypt and Israel and Arab Cooperation with the US during the 1991 Gulf War ([US Foreign policy, 2015](#)). It led to the Oslo accords, including an agreement on water rights and management (see conflict resolution section).

The assassination of Prime Minister Rabin in November 1995 and the subsequent election of Benjamin Netanyahu, who had been highly critical of the 1993 Declaration of Principles, contributed to worsening the political climate. Deepened distrust between Palestinians and Israelis negatively affected cooperation on water ([Oregon University, 2008](#)).

The 2000 uprisings against Israeli occupation – the second Intifada – resulted in further obstacles to bilateral cooperation over water ([Fischhendler et al., 2011](#)). During the first six months of the second Intifada, there was no contact between both sides regarding water issues (*ibid.*). Despite the conflict, Israeli and Palestinian leaders committed themselves to separating the water issue from violence and reactivated cooperation over water (*ibid.*). In 2004, Israel reportedly proposed a plan to build a desalination plant in order to increase the quantity of freshwater available and to channel desalinated water to the West Bank ([Pearce, 2004](#)). Fearing that this might in effect imply a renunciation to Palestinian water claims on the Mountain aquifer (75% of which is allocated to Israel even though the Aquifer is on Palestinian land), the Palestinians rejected this solution ([Baumgarten, 2009](#)).

Deadlock on water cooperation

The election of Hamas in Palestine in 2006 represented a new turning point in Israeli-Palestinian water relations as it put an end to all cooperation between both countries, including in the JWC ([Fischhendler et al., 2011](#)). Since then, Israel has adopted a unilateral water-management strategy (*ibid.*). Thanks to technological improvements, Israel began operating large-scale desalination plants in 2007 ([Fischhendler et al., 2011](#)). In 2009, desalinated water represented approximately 20% of Israel's needs for domestic consumption, and the country planned to increase this share to cover between one third and one half of her domestic consumption by 2015 ([Brooks and Trottier, 2010](#); [Fischhendler et al., 2011](#)). In 2015, the New York Times reported that 'more than 50 percent of the water for Israeli households, agriculture and industry is now artificially produced' (including desalinated seawater and recycled wastewater; [Kershnermay, 2015](#)).

Whilst Israel succeeded in finding additional water sources to cover the needs of its population, the Palestinian population has been suffering water shortages, and water in Gaza is pumped at unsustainable levels ([Friedman, 2014](#)). Today, at national scale water cooperation between both countries is largely in a deadlock.

Resolution Efforts

The Middle-East Peace Process and its outcomes



The multilateral Middle-East Peace Process, which commenced in 1991 in Madrid, was key to the conflict resolution process (see [Jordan and Israel: water cooperation in the Middle-East](#)). In parallel, Palestinian and Israeli leaders engaged in parallel, secret negotiations in Norway ([Fischhendler et al., 2011](#)).

Facilitated by the U.S. and Norwegian governments, the secret talks led to the 1993 “Declaration of Principles”, in which the water issue occupied an important part ([Brooks and Trottier, 2010](#)). The agreement established the Palestinian Authority and determined temporary groundwater allocations from the West Bank to Israel and Palestine ([Ibid.](#); [Fischhendler et al., 2011](#)). In the declaration, both parties agreed on the principle of “equitable utilisation” between Palestinians and Israelis ([ICE, 1997](#)).

In 1995, a new agreement was signed, in which Israel recognised the water rights of the West Bank ([Baumgarten, 2009](#)). Moreover, the agreement established a Joint Water Committee (JWC) as well as a Joint Environment Expert Committee (EEC) and included a number of points regarding water protection ([Fischhendler et al., 2011](#); see also [Israel-Palestine: Water-quality issues](#)). The agreement also stipulated that all new water projects would require an authorisation from the Israeli Central Authority (CA) ([Selby, 2013](#)).

An agreement perceived as asymmetrical

Despite the successful outcome of the negotiations, scholars have pointed out that the 1995 treaty was asymmetrical in Israel’s favour ([Selby, 2013](#)). According to Selby, the Israeli CA has been limiting Palestinian water projects whilst favouring water developments in the Jewish settlements ([Ibid.](#)). It can thus be questioned whether the 1995 agreement marked a real change for Palestinians in comparison to the status quo that prevailed before the agreement.

Increase of distrust between the parties affects water agreement

Two years after the treaty was established, difficulties in implementing the 1995 agreement started to appear. Both sides began accusing each other of violating the agreements, and the meetings of the Joint Committees became irregular ([Fischhendler et al., 2011](#)). Moreover, joint ventures, including a plan to link Palestinian cities to a Wastewater Treatment Plan in Israel, were perceived by the Palestinian Authority (PA) as a breach of sovereignty.

The assassination of Prime Minister Rabin in November 1995 and the subsequent election of Benjamin Netanyahu, who had been highly critical of the 1993 Declaration of Principles, negatively affected not only the wider Middle East peace process, but also cooperation on water (see conflict section). This non-cooperation culminated after the election of Hamas in Palestine in 2006.

Since then, Israel has adopted a unilateral water-management strategy and become less dependent on freshwater resources due to breakthroughs in desalination technology ([Fischhendler et al., 2011](#)). Yet whereas the situation of the Israeli population has improved, Palestinians are suffering water shortages, and the water situation in Gaza is of particular concern ([Friedman, 2014](#); [UNCTAD 2015](#)). Today, water cooperation between both countries is in a deadlock. In February 2015, even though the media has reported the “historic” agreement amongst Israel, Palestine and Jordan on a water-transfer project from the Red Sea to the Dead Sea ([I24, 2015](#)) (see [Jordan and Israel water cooperation in the Middle East](#)), Palestinian organisations have been protesting against the project ([Dajani and Messerschmid, 2014](#)). In



fact, the organisations deem the project to be rather bilateral between Jordan and Israel, arguing that the canal would have tremendous impacts on the environment and that Palestinians have very little to gain in the deal ([Ibid.](#)).

Political issues as an obstacle for water cooperation

Despite the 1993 and 1995 agreements, cooperation over water between Israel and Palestine is in a deadlock today. In the Israeli-Palestinian case, attempts to cooperate over water have largely failed at the national scale due to persisting bilateral tensions. In view of the power asymmetry, cooperation over water issues seems inextricably linked to the settlement of political issues. It also indicates that sustainable cooperation on technical solutions and sharing of information necessary to the planning of water projects can only be achieved if tensions and distrust on both sides are reduced ([ICE 1997](#)).

Recommendations

Scholars and civil society activists have advanced several win-win solutions at the regional level that could put cooperation on a good track. For instance, desalination plants on the Israeli and Palestinian Mediterranean coast could produce much-needed water whereas Northern Jordan provides almost ideal conditions for producing solar energy ([EcoPeace Middle East 2014](#)). Since desalination is energy-intensive, (indirect) trade of water against energy could enhance interdependence (rather than the current asymmetry in dependence) and thereby strengthen the political sustainability of such agreements. This would not necessarily imply physically trading desalinated Mediterranean water against Jordanian electricity (the transportation costs would likely be prohibitive), but could be indirectly/politically linked by e.g. reducing Israeli withdrawals from the Jordan / Mountain aquifer basins in return for electricity (see [EcoPeace Middle East 2014](#)). In time, Israel's desalination capabilities should make it easier for the government to offer concessions on water allocation in shared basins (by risking less of a domestic, economically driven backlash from e.g. farmers), which in turn could conceivably allow for a political opening on the currently stalled Middle East peace process.

Transnational civil society activists have also started to develop plans that would help operationalize international agreements on shared waters in the region once the overall political development becomes more conducive to a renewed push for a comprehensive agreement. Examples include Eco Peace Middle East's [model water agreement](#) between Israel and the PA and '[Regional NGO Master Plan for Sustainable Development in the Jordan Valley](#)'.

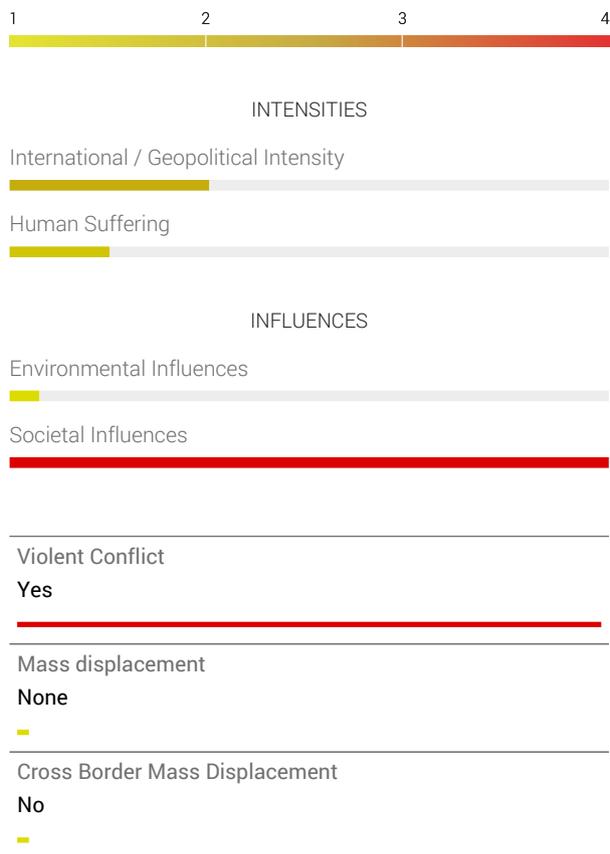
Meanwhile, there are unilateral solutions that both Palestine and Israel could apply at the national level to reduce the quantity of water used for agriculture. Production of water-intensive crops such as cotton, tomatoes, lettuce and bananas could be for instance reduced ([Lowi, 1993](#)).

What could make cooperation more likely between the countries is the presence of a ripe moment ([Rasmussen and Zartman, 1997](#)), when the situation becomes so unbearable that it seems obviously better for both countries to cooperate. However, whilst the Palestinian population suffers from water shortage, Israel has been able to improve its water scarcity with desalination plants. Thanks to these plants and Israel's measures to promote water-saving in the cities, Israel also is much more resilient to the effects of climate change in terms of water quantity ([Feitelson et al., 2012](#)). This asymmetry implies



a seemingly lesser incentive for Israel to cooperate. However, the interdependence is greater when it comes to water quality which, already today, is hazardous for the environment and for the health of both Israeli and Palestinians populations (see [here](#)). Moreover, using its power advantage may carry reputational and other costs for Israel: as civil society activists have pointedly asked, 'if Gaza's water economy is allowed to collapse, tens of thousands of Gazans will start walking towards the border fences of Israel and Egypt. What will the Israeli or Egyptian military do? Would they dare shoot at civilians desperate for drinking water?' ([Bromberg 2015](#)).

Intensities & Influences



Resolution Success

- Reduction in Violence
There was no reduction in violence.
-

- Reduction in geographical scope
There has been no reduction in geographical scope.
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- Increased capacity to address grievance in the future
There is no increased capacity to address grievances in the future.
-

- Grievance Resolution
Grievances have been mostly ignored.
-

- Causal Attribution of Decrease in Conflict Intensity
There has been no reduction in intensity
-



Entry Points for Resilience and Peace Building

<p>Cooperation</p> <p>Win-win solutions at the regional level could improve cooperation between countries. For example desalination plants on the Israeli and Palestinian Mediterranean coast could produce water to be traded with potential solar energy production in Northern Jordan.</p> <hr/>	0
<p>Treaty/agreement</p> <p>In 1995, an agreement was signed in which Israel recognised the water rights of the West Bank. The agreement also established a Joint Water Committee (JWC) as well as a Joint Environment Expert Committee (EEC) and included a number of points regarding water protection. However, the treaty was largely asymmetrical in Israel's favour.</p> <hr/>	3
<p>Reducing dependence on specific supplies</p> <p>Both Palestine and Israel could reduce the production of water-intensive crops such as cotton, tomatoes, lettuce and bananas in order to reduce the quantity of water used nationally.</p> <hr/>	0
<p>Improving infrastructure & services</p> <p>Israel has become less dependent on freshwater resources with the use of large-scale desalination plants.</p> <hr/>	2
<p>Promoting social change</p> <p>Transnational civil society activists have started to develop plans that would help operationalize international agreements on shared waters once bilateral political tensions subside.</p> <hr/>	0

Resources and Materials

Conflict References

[Israel-Palestine: Water-Quality Issues](#)

[Jordan and Israel: Tensions and Water Cooperation in the Middle-East](#)

References with URL

[EcoPeace Middle East \(2014\). A Water and Energy Nexus as a Catalyst for Middle East Peace.](#)

[Baumgarten, P. \(2009\). Israel's Transboundary Water Disputes.](#)

[Brooks, D., & Trottier, J. \(2010\). Confronting water in an Israeli–Palestinian peace agreement. *Journal of Hydrology*, 382, 103-114.](#)

[Cole, J. \(2013\). Palestinians Protest illegal Israeli Theft of Water Rights. *Informed Comment*.](#)

[Dajani, M. and Messerschmid, C. \(2015\). *The Electronic Intifada*.](#)



- [Fischhendler, I., Dinar, S., & Katz, D. \(2011\). The politics of unilateral environmentalism: Cooperation and conflict over water management along the Israeli-Palestinian border. *Global Environmental Politics*, 11, 1, 36-61.](#)
- [Feitelson, E., Tamimi, A., & Rosenthal, G. \(2012\). Climate change and security in the israeli-palestinian context. *Journal of Peace Research*, 49, 1, 241-257.](#)
- [Friedman, T.L. \(2014\). *Whose Garbage Is This Anyway?* *Sunday Review*.](#)
- [Gleick, P. H. \(1994\). *Water, war and peace in the Middle East*. *Environment*, 363, 6-15.](#)
- [Homer-Dixon, T. F. and Percival, V. \(1995\). *Environmental scarcity and violent conflict: The case of South Africa*. Washington, D.C: American Association for the Advancement of Science.](#)
- [I24.\(2015\). *Israel, Jordan ink 'historic' water pact*.](#)
- [ICE Case studies. \(1997\). *Jordan River Dispute*.](#)
- [Isaac, J. \(1994\). *Core issues of the Palestinian-Israeli water dispute*. Bethlehem: Applied Research Institute.](#)
- [Jewish Virtual Library. \(2015\). *Vital Statistics: Total Casualties, Arab-Israeli Conflict \(1860 - Present\)*.](#)
- [Lowi, M. R. \(1995\). *Bridging the divide: Transboundary resource disputes and the Case of West Bank Water*. *Global Dangers : Changing Dimensions of International Security*, 118-143.](#)
- [Oregon State University. \(2008\). *The Transboundary Freshwater Dispute Database*. Retrieved 05.06.2015.](#)
- [Selby, J. \(2013\). *Cooperation, domination and colonisation: The Israeli-Palestinian joint water committee*. *Water Alternatives*, 6, 1, 1-24.](#)
- [US Foreign policy. \(2015\). *What Were The Oslo Accords?* Undated. Retrieved 05.06.2015.](#)
- [Pearce, F. \(2004\). *Israel lays claim to Palestine's water*. *New Scientist*, May 29, 2004](#)
- [Bromberg, G. \(2015\). *When Gazan refugees pour into Tel Aviv*. September 6, 2015](#)
- [Kershnermay, I. \(2015\). *Aided by the Sea, Israel Overcomes an Old Foe: Drought*. *New York Times*, May 29, 2015](#)

References without URL

Rasmussen, J. L. and Zartman, I. W. (1997). *Peacemaking in International Conflict: Methods&Techniques*. Washington, D.C.

Further information

<https://factbook.ecc-platform.org/conflicts/israel-palestine-water-sharing-conflict>