



Middle East Spotlight

Israel: A Pioneer in Water Conservation

As we welcome the onset of spring...and spring showers...we are reminded of the challenges the Jewish people have overcome throughout history. A recent addition to the Seder table for some is a cup that symbolizes Miriam's well—the source of water for the Israelites in the desert.

Just as the Israelites relied on Miriam's well to be a blessed source of water, Israelis living in the modern state of Israel need to rely on the blessings of cutting-edge innovation to provide water in an arid, desert climate. Today, Israelis have developed innovative, high-tech solutions to manage and conserve scarce water resources, which have in turn made the Jewish state effectively "water secure."

The Israeli government has long approached water infrastructure as a critical investment. During a drought in 1999, Israel implemented an emergency plan to address water usage nationwide. The result was a framework to build Israel's first large-scale seawater desalination plant, which opened in 2005.

Four more plants have since opened, and desalination now provides approximately 40 percent of Israel's entire water supply. Israel is also a world leader in recycling wastewater—an estimated 86 percent of all wastewater is reused in agriculture.

Such innovative technology has spurred cooperation between Israel and its neighbors and has opened new areas in which the bilateral U.S.-Israel relationship can grow in the coming decades.

In February 2015, Israel and Jordan signed an agreement to begin work on a 180 kilometer-long canal between the Red Sea and Dead Sea. The canal will bring water from the Red Sea to a desalination plant in Aqaba, Jordan, with some water continuing on to refill the Dead Sea. As a result of this project, Jordan and Israel expect to each receive between eight and 13 billion gallons of potable water per year. As of June 2016, 17 international firms have tendered bids for the first phase of the project.

Dozens of U.S. states are currently experiencing abnormally dry conditions and are looking to Israel to help minimize water shortfalls. Israeli company IDE Technologies designed California's largest desalination plant in Carlsbad. And in August 2016, California announced it will build off of the Israeli technology already at work in Carlsbad at a proposed, carbon-neutral plant in Huntington Beach.

At the federal level, in December 2016 Congress passed the Water Infrastructure Improvements for the Nation Act. Although primarily oriented at domestic needs, the act contains several substantive provisions that incentivize cooperation and foster research and development with Israel in the exploration of new water resources and technology.

Today, Israel has a surplus of fresh water and is actively exporting its desalination expertise to other communities. Its water independence is a world ahead of the days of Miriam's Well and a model for other countries facing water shortages.