



## **Brief - Gaza's Water and Sanitation Crisis and Implications for Regional Stability**

**Updated February 2016**

The Coastal Aquifer supplies 95% of Gaza's water, and is in a state of extreme over use with water extraction rates more than three times the renewable supply. As a result, seawater infiltrates into the aquifer, and salinity levels have thus risen well beyond World Health Organization (WHO) guidelines for safe drinking water. This situation is compounded by contamination of the aquifer by nitrates from the untreated sewage of 1.8 million people. Gaza's residents are therefore increasingly dependent on small-scale desalination of brackish water. While these small desalination plants reduce salinity they do not remove the pollutants. The water is sold to the public mostly by private vendors for drinking and cooking purposes, with little supervision of health authorities.

The implications of a Gaza health crisis will not be confined to the Gaza but threaten regional stability. Some 90,000 cubic meters of raw sewage from Gaza flow into the Mediterranean Sea every day. Seawater currents carry this untreated wastewater along the Gaza coast towards Israeli beaches. Due to poor sanitary conditions in Gaza, an outbreak of pandemic disease is a matter of time. As is further witnessed by the current wave of Syrian refugees into Europe, desperate people will not be stopped by border fences. A recent UN report concluded that the Gaza Strip, in just 5 more years of further under development, will be uninhabitable with water, sanitation and energy issues of prime concern. This has dire implications not only for the Palestinian population of Gaza but to the region as a whole.

Israel therefore has a clear vested interest in cooperating with the Palestinian Authority and with the international community to alleviate the current situation. The following measures are necessary:

- Double the volume of water sold by Israel to Gaza, from 10 to 20 mcm: In March 2015 the Israeli government committed to double the amount of water sold to Gaza from 5 to 10 mcm. The current capacity of water pipelines crossing into Gaza from Israel is reported to be 20 mcm. The imported water could be blended with groundwater, making 40 mcm of potable water available.
- Facilitate reservoir building and repair of network: Only 8 mcm of the 10 committed by Israel can presently be supplied due to lack of storage capacity. Additional storage capacity of up to 12 mcm (to accommodate the 20 mcm overall) is needed and urgent investment in network losses, estimated at up to 50%, are needed.
- Increase electricity supply for water and sanitation: An addition of up to 6 MW of electricity could be supplied through the existing grid connection between Israel and Gaza, to power a newly built World Bank led wastewater treatment plant in northern Gaza (the NGEST project) that could treat about a third of the sewage that flows into the Mediterranean daily. In parallel, for the longer term, there is a need for a high voltage electricity line that would see an additional 100 MW of electricity and a gas pipeline from Israel to Gaza to directly power the Gaza power station and a large 50 mcm desalination plant proposed.

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