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Water in the Land of the Nile: From Crisis to Opportunity?

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In recent decades Egypt has suffered from a growing water shortage, and now it must tackle a host of challenges relating to a reliable water supply, the maintenance of water quality, and prevention of water loss from leaking pipes. Egypt's openness to external assistance in dealing with its water problem, along with the pragmatic line led by President el-Sisi on this subject, creates an opportunity to extend normalization with Israel. Israeli knowhow in the fields of water management, recycling, and desalination technologies, streamlined water consumption, and desert agriculture offers enormous potential for a range of cooperation. For some time Israel has used the water resource to promote relations with Jordan, and the addition of a similar dimension to relations with Egypt would serve a range of interests: reinforcing Egyptian recognition of the benefits of peace; extending the range of bilateral relations at government and civilian levels on both sides; and preventing water poverty that threatens the future stability of Egypt and the region.

In recent decades Egypt has suffered from a growing water shortage, and now it must tackle a host of challenges relating to a reliable water supply, the maintenance of water quality, and prevention of water loss from leaking pipes. The Nile is Egypt's almost exclusive lifeline, and any deficit to its supply is perceived - correctly - as an existential threat. A symbolic positive development in this issue was recorded on June 10, 2018, at a joint press conference in Cairo between Egyptian and Ethiopian leaders. Egyptian President Abd el-Fattah el-Sisi extracted from Ethiopian Prime Minister Abiy Ahmed a public commitment - in Arabic - that the quota of water reaching Egypt from the Nile would not be affected by the Grand Ethiopian Renaissance Dam (GERD) that Ethiopia is building.

The announcement was evidence of progress in regulating the crisis overshadowing relations between the countries since the beginning of the decade. However, two months have passed since the leaders' summit, and in spite of the cordial atmosphere that prevailed, no concrete understandings have been presented on the main issues in dispute. In addition, settling the crisis in itself will not provide a comprehensive, long term solution for the deteriorating water situation that threatens Egypt. These circumstances highlight the potential for cooperation between Israel and Egypt regarding water, which

in turn could bolster peaceful relations between the countries and strengthen their stability.

The Dispute Surrounding the Renaissance Dam

The Grand Ethiopian Renaissance Dam is a vast hydroelectric project, begun by Ethiopia in 2011 with an investment of \$5 billion. The dam is intended to store water and generate electricity, partly for Ethiopia itself, and partly for export to its neighbors – Sudan, Kenya, and Djibouti. Work on the dam began while Egypt's attention was largely focused on its internal political upheavals. During the short period of the Muslim Brotherhood government, there was harsh rhetoric from Egypt on this issue: inter alia, two senior government officials were recorded (without their knowledge) discussing ways to destroy the dam. After the removal of President Mohamed Morsi in the summer of 2013 and the rise of el-Sisi to power, a joint Egyptian, Sudanese, and Ethiopian committee of experts was set up to forecast the impact of the dam. In March 2015, joint talks began, ending with the Khartoum Agreement – a declaration of intentions, designed to secure the interests of all three parties. By signing this agreement, el-Sisi de facto accepted the existence of the dam - four years after construction began.

Following this agreement, Egypt, Ethiopia, and Sudan began talks at governmental and professional levels that proceeded in fits and starts. The crux of the dispute was – and remains – the impact of the GERD on the Egyptian and Sudanese water economies, subject to the time taken by Ethiopia to fill the reservoir (5-15 years). Ethiopia hoped to fill it as quickly as possible in order to start generating electricity, but this would require diverting a large quantity of Nile water during these years, which would affect the Egyptian water economy.

Sudan, which until 2015 shared Egypt's concerns about the dam's impact, saw its concerns eased, and gradually grew closer to the Ethiopian line. Although Sudan also has water problems, they are not as severe as those of Egypt, and the threat to Khartoum relates principally to the possibility of massive flooding if the dam breaks. The dam is supposed to help regulate the flow of water reaching Sudan, which would help to develop its agriculture, while Ethiopia would also sell it electricity generated from the dam.

A breakthrough in the GERD crisis, if it occurs, would be an achievement for the moderate diplomatic line adopted by el-Sisi since coming to power. In addition to striving for pragmatic understandings, the Egyptian President wants to turn the crisis into an opportunity to develop Egyptian-Ethiopian relations through multi-faceted economic cooperation and expand the integration between the countries. The greater warmth in relations is also connected to the approach of the new regime in Addis Ababa. Prime Minister Ahmed, who was elected in April 2018, sees the settlement of the crisis as

leverage to promote ventures in the fields of economy and energy, and to develop his country's regional and international ties.

At the June summit, el-Sisi and Ahmed agreed to establish a joint fund to finance development projects related to the GERD. According to the Egyptian press, both leaders accept the principle that Ethiopia recognizes Egypt's right to Nile water and the need to minimize the damage caused by the dam to the diminished Egyptian water supply, while Egypt recognizes both Ethiopia's right to build the dam and its economic development needs. An additional indirect gain for Ethiopia was the receipt of aid in money and investment amounting to \$3 billion from the United Arab Emirates, Cairo's close ally. Continuing improvement in Egypt-Ethiopia relations and the move from suspicion to mutual trust still awaits the translation of the positive spirit reflected in the leaders' declarations into practical steps on the ground.

Egypt's Water Plight

The GERD crisis is just one of many components of Egypt's water plight. The Egyptian water economy is almost entirely dependent on the Nile River, but this source is disappearing, due to global warming (surveys show that at in the late 1960s, the annual volume flow of the Nile was 84 billion m³, while today it is only 56 billion m³). The Egyptian water economy also suffers from many years of neglect, given the insufficient development of facilities to purify, recycle, and desalinate water, and the defective maintenance of infrastructures. Desalination facilities supply only 0.6 percent of Egypt's drinking water (in 2016), and in 2015 it was estimated that 15 percent of water was lost from pipes (by comparison, loss of water in Israel was only 3.2 percent that year). All this is happening as Egypt faces a demographic challenge that requires it to provide food and water for approximately 100 million people.

The water problems could have far reaching geopolitical and demographic consequences: damage to nutritional security resulting from reduced agriculture; extensive redirection of energy for desalination needs; increased conflicts (such as the GERD crisis); and mass migration to the cities. According to a forecast presented by Egyptian Minister of Irrigation Mohamed Abdel Ati in June 2018, given a continued fall in the water supply, about 5 million citizens in the Nile Delta region could be forced to leave their homes. The city infrastructures would collapse under such an influx of people, and the lack of basic supplies such as water, food, and sanitation could trigger social and political unrest, as already occurred in Syria in 2011.

The GERD crisis highlights the Egyptian imperative to reform the water economy. In the next few years Egypt must take many steps to improve its handling of water: raising awareness and education on saving water; repairing and maintaining aging

infrastructures; implementing changes to water-saving agriculture; and increasing the use of technologies for purification, recycling, and desalination. All these are reflected at various levels in the “Egypt 2030” vision, which presents an outline for the country’s development. The vision, published in 2015 by the Egyptian Ministry of Planning, deals with the water crisis, but only superficially. In December 2017 the Minister of Irrigation announced a plan for development of water resources by 2037 at a cost of \$51 billion.

In practice, Egypt is working with foreign companies to increase its volume of desalinated water. As of 2016, about 30 desalination facilities were operating in Egypt, and the latest forecasts speak of constructing a further 20 facilities in the next few years, although their expected contribution is still marginal in relation to the extent of the shortage. Another difficulty relates to the huge cost of setting up and operating such facilities.

Recommendations for Israel

Although peace relations between Israel and Egypt are currently limited largely to the diplomatic and security spheres, past experience proves the ability of these two countries to join hands and promote other dimensions, particularly when these clearly serve mutual economic interests. Among the numerous examples are agricultural cooperation, the QIZ agreements, and energy transactions (including the latest natural gas deal signed in February 2018).

Egypt’s openness to external assistance in dealing with its water problem, along with the pragmatic line led by President el-Sisi on this subject, creates an opportunity to extend normalization. Israeli knowhow in the fields of water management, recycling, and desalination technologies, streamlined water consumption, and desert agriculture offers enormous potential for a range of cooperation. For some time Israel has used the water resource to promote relations with Jordan, and the addition of a similar dimension to relations with Egypt would serve a range of interests: reinforcing Egyptian recognition of the benefits of peace; extending the range of bilateral relations at government and civilian levels on both sides; and preventing water poverty that threatens the future stability of Egypt and the region.

In the early days of peace, President Sadat played with the idea of promoting a project for the flow of Nile water from Egypt to Israel as a gesture to bring together members of the monotheistic religions. The current circumstances give both countries an opportunity to revive this vision, but with the roles reversed. Israel should encourage the relevant ministries to work on the issue of water, with the involvement of companies and entrepreneurs from the private sector. Participation in such ventures by other international players as well as regional players, such as Jordan, Saudi Arabia, and the Palestinian

Authority, could give future Israeli-Egyptian cooperation added value and increase its chances of success.

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