

Build the Gaza Desal Project Now!

by Hussein Askary and Marcia Merry Baker

Sept. 10—It is urgent that construction begin straightaway on the Gaza Desalination Facility Project, which is ready to go, and can relieve the desperate water crisis for the 1.6 million residents in the Gaza Strip. On average, there are only 70-80 liters of water a day per person in Gaza, when the minimum for health, is 100 liters, according to the UN World Health Organization. The water is saline. Sewage treatment and sanitation are lacking. Two-thirds of the diseases afflicting Gazans are water-related. This is a holocaust in the making.

A new report by the UN Country Team in the Occupied Palestinian Territory (OPT) describes the conditions as unliveable. Released in August, it is titled, “Gaza in 2020—A Liveable Place?”

The Gaza Desal Project designs are ready for implementation; and at the Stockholm World Water Week, details were presented to the 2,500 conferees, by its principal authors, Dr. Shaddad Attili, Palestinian Minister of Water Resources, and Rehby Al-Sheikh, Director of the Palestinian Water Authority (PWA). In June 2011, the Union for the Mediterranean (UfM) designated this project as its foremost priority. They stated:

“The ‘labelling’ of this large-scale project, submitted by the [UfM] Secretariat’s Environment & Water Division, in collaboration with the Palestinian Water Authority, by the representatives of all 43 UfM countries, was partly based on a unanimous recommendation from the UfM’s Water Expert Group, and is an ac-



Source: World Water Week.org

Palentinian Water Minister Shaddad Attili: “We do believe, that in the medium term and the long term, water could be used as the means to promote peace in the region....”

knowledgment that the project is capable of delivering concrete benefits for 1.6 million impoverished citizens living on the southern shores of the Mediterranean, not only from humanitarian and health perspectives, but also contributing to job creation and future economic and sustainable development in this highly populated region of the Mediterranean.

“The Project will also contribute to the political stability of the region through the removal of the water scarcity issue from the web of the multiple and complex issues facing the Gaza Strip.”

Develop the Mediterranean Basin

This Gaza desalination facility is a hallmark project, for the current interregnum between the expired world monetary system and era of strategic confrontation, and the new reality waiting to be built, based on peace through development. The gateway is to enforce a radical and rapid policy shift to initiating a worldwide Glass-Steagall system for separating useful banking from speculative financial gaming, and build nation-serving, stable credit systems for funding priority projects for economic advance.

The outlines of what must be done in the greater Mediterranean region are getting wide attention, from the emergency recovery program, released in June 2012, “Economic Miracle in Southern Europe, the Mediterranean Region, and Africa.”¹

The Gaza Strip is a top priority to receive immediate relief, and for inclusion in regionwide development as part of the southeastern Mediterranean and trans-Jordan. Water is critical.

Build ‘Natural’ Water Resources

As it is, the natural resources water base in the Gaza, trans-Jordan, and surrounding desert regions, is entirely inadequate to support the existing population, and has been so for decades. No manner of riparian and aquifer water-sharing agreements can be made—even fairly, which the current ones are not—which will provide adequate supplies. The water isn’t there.

The Jordan River Valley flow, in modern times, was considered by hydrologists as capable of supporting about 5 million people, but as of 20 years ago, more than 11 million were resident in the Jordan Basin. Therefore, today’s situation is untenable. The water available from run-off and underground sources per

1. *EIR*, June 8, 2012.

FIGURE 1

Mountain and Coastal Aquifers



Source: Arc/World, UN Cartographic Section, DCW, Palestinian Environmental Quality Authority

capita, for both domestic use, and for minimum levels of industrial and agricultural activities, is way below what is required.

Dr. Attili said in an interview with *EIR* in 2007, “To address actually the water use in the region, first, the natural water resources should be allocated equitably. The second thing is, to face the demand on the water. The people, the parties in the Basin, have to come into agreement about the use of the water, the re-use of the water, and building the desalination plants, in order to make water available. We do believe, that in the medium term and the long term, water could be used as the means to promote peace in the region. . . .”

In mid-20th Century, plans for projects to provide plentiful, new man-made water supplies, were repeatedly put forward, and as often, repulsed by the prevailing imposition of British-centered financial and political circles, intent on keeping the region down and in turmoil. Look at the record.

1950s. During the Atoms for Peace period after World War II, President Eisenhower sent teams to the Jordan Valley, to map out a mini-TVA approach to max-

imize water development. Detroit Edison Electric Co. sent its top officer Walker Cisler throughout the Mideast, with a table-top scale model of a nuclear power plant, visiting government leaders across the region, from Egypt to Iran.

1970s. Lyndon LaRouche called for an “Oasis Plan” to green the North African and Southwest Asian desert expanse, through nuclear power, systems of canals—especially the Med-Dead Sea Canal—and desalination.

1990s. Soon after the 1993 Oslo Accords, plans were again issued for water development. LaRouche urged, “Put the shovels in the ground!” Just 16 nuclear power plants in the region would create the water equivalent to a second Jordan River.

1994. “The Palestinian Emergency Development Program,” and “The West Bank and Gaza Strip—A Brief Economic Overview,” outlined water projects. The same year, the government of Israel issued, “Development Options for Regional Cooperation,” including water augmentation. Only a handful of water-related projects were ever completed; the entire vision was thwarted.

2000. That Summer, water again was relevant to discussions for the Camp David Accords. A policy paper was made available to President

Clinton and delegations, calling for large-scale water desalination titled, “Solving the Problem of Fresh Water Scarcity in Israel, Jordan, Gaza and the West Bank.” It was issued in 1999 by the Washington, D.C.-based Center for Middle East Peace and Economic Cooperation. The maps showed desalination sites on the Mediterranean in Israel at Ashkelon; in Jordan at Hisban; and on the Mediterranean on the Gaza coast. But no action for Gaza ensued. The 1993 Accords took no action on water at all.

Gaza Desalination Project

The Gaza Project is described in a Fact Sheet by the Secretariat of the Union for the Mediterranean titled, “Gaza Desalination Project; The Largest Single Facility To Be Built in Gaza.” It begins by summarizing the current plight, and then gives essential specifics of the proposed new facility.

“The availability of ‘fresh’ water in Palestine is amongst the lowest in the world. In the Gaza Strip, the only available water source is groundwater from the deteriorating Coastal Aquifer **Figure 1** underlying the Gaza

Strip, as well as Israel and Egypt. The sustainable yield of the aquifer in the Gaza Strip is only 55 million cubic meters (mcm)/year, however, the 1.7 million Palestinians in Gaza consume in excess of 170 mcm/year from the aquifer—thus taking approximately three times as much as the aquifer can sustainably recharge each year.

“The over pumping of groundwater has led to the damage of the trans-boundary aquifer due in part to a large increase in groundwater salinity following from seawater intrusion into the aquifer from the Mediterranean. Levels of salinity found in the aquifer under Gaza have risen continuously over the last two decades, and are now far in excess of the World Health Organization standards for drinking water. According to the World Bank, the situation has become so dire that ‘only 5-10% of the aquifer is now yielding drinking quality water (World Bank Report, 20 April 2009 Pg. VI).’”

The desalination facility is, most likely, to use seawater reverse osmosis, to produce 55 mcm per year, for the first phase; and the site will provide, at a later phase, for a capacity of 110 mcm.

A new electricity plant is vital to the project, not merely because of the power requirements for any large-scale desalination plant, but because of the severe electricity shortage in the Gaza. There is only one power plant in Gaza, producing 100 MW. (In addition, Gaza gets 120 MW from Israel, and 22 MW imported from Egypt, which, under ideal circumstances, adds up to 242 MW, still far below peak demand, which is above 350 MW. Outages are frequent and long).

There are four components for the project, to be implemented in parallel:

- The desalination facility itself
- Water storage in reservoirs, water transmission and distribution systems
- Systems for administering non-revenue water; and for efficient revenue collection for water supplied
- Power supply dedicated to the seawater reverse osmosis facility

The Palestinian Water Authority has secured a site for the desalination complex, of 80,000 sq.m. of land, adjacent to the Mediterranean Sea, near Dar El Balah.

A Trust Fund mechanism has been set up. The total investment cost is estimated at \$455 million.

A timeline has been worked out. Once the pledges have come in, as of the end of 2012, then in 2013, the implementation designs will be made final. In 2014, a project manager will be appointed, and the tendering processes for the contract work will ensue. The actual

start of the project will be in the second half of 2014. Following that, the project duration and completion is expected to take up to three years (2014, '15 '16).

The critical requirement is the will of international leadership to undertake this desperately overdue project, in the overall drive now underway to usher in a new era of credit and planetary-scale improvements.

Without Water, Unliveability

The already unliveable conditions in Gaza are reported in detail in a new 20-page report released in August by the UN Country Team in the OPT. The Gaza Strip has a population of 1.64 million, but lacks the water, power, health care, food, and shelter to support its people.

Half of Gaza's population are children, and two-thirds are refugees. The area is 365 km³, so the density at present is 4,505 people per km³, one of the highest in the world. If infrastructure is not rapidly built, a health holocaust is guaranteed. In terms of water and sanitation, the report states:

“Today, 90% of the [coastal] aquifer is not safe for drinking without treatment. Availability of clean water is thus limited for most Gazans with average consumption of 70 to 80 litres per person per day (depending on the season), below the global WHO standard of 100 litres per person per day.

“The aquifer could become unusable as early as 2016, with the damage irreversible by 2020. . . .

“Meanwhile the Palestinian Water Authority expects demand for fresh water to grow to 260 MCM per year by 2020, an increase of some 60% over current levels of abstraction from the aquifer.

“The situation with regard to treatment of waste water or sewage is no less problematic, with huge investment in treatment facilities and associated infrastructure desperately needed to cope with the existing demand, let alone for the future. At present, only 25% of waste water, or 30,000 CM per day, is able to be treated and re-infiltrated for use in green areas and some forms of agriculture. Some 90,000 CM of raw or partly treated sewage has to be released daily into the nearby Mediterranean Sea and environs (almost 33 MCM per year), creating pollution, public health hazards, and problems for the fishing industry.”

Dr. Attili said in the press conference in Stockholm, following the presentation of the Gaza Desalination Plant, that the Palestinian Authority has already secured 50% of the US\$500 million required for the project from Arab countries. He expressed however, bitterly,

his hope that his tour in Europe following the conference, and the UN report on Gaza, would move the European countries to speed up their contributions.

It is a tragedy for our civilization that such a relatively small project, but so vital to save the lives of Palestinian children, is being blocked by the insane small-mindedness of the European leaders, and the total indifference of the American leadership, to the suffering of the Palestinian people, which is aggravated by the Israeli blockade. Whether this project is built soon or not will be a test of whether the trans-Atlantic world is not both morally and economically bankrupt.