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An Overview of the Water Conditions in Palestinian Villages

Maya Manna, Roger Williams University

Palestinians have a very low water consumption rate, using only about half of the internationally recommended daily amount of water for consumption, hygiene, and cleaning needs.¹ According to the USAID website, one ten minute shower in the U.S. equals a day's water consumption for an average Palestinian.² In addition to that most of the rural villages across the West Bank have no piped water, and only some have access to water in winter. Residents typically use less than 30 liters per capita per day because of the high costs of private water.³ As a result, only few families can afford basic water supplies.

Those families who can afford basic water supplies pay much money for a very low quality of untreated water because it is not being tested in the Palestinian villages. USAID states that it is "the closures and curfews that prevent the access to chlorine and safe water sources."⁴ As a result, about two-thirds of drinking water in rural households is contaminated with bacteria. Besides, Palestinian ground water supplies have increasingly become polluted as a result of agricultural chemicals, inadequate sewage treatment, and over-pumping of wells. Untreated sewage is dumped in valleys and the Mediterranean Sea, polluting the ground water, sea, soil and coastline.

The research "Water Supply and Sanitation for a Group of Palestinian Villages in the Southern West Bank" reports that the eastern basin of the Mountain Aquifer, south of Jerusalem, is now "the principal source of drinking and domestic water for the Palestinians in this area."⁵ The Israeli government in Article 40 of the Bilateral Interim Accords (1995) allowed Palestinians to drill 16 new wells into this part of the Eastern Aquifer.⁶ However, supply systems are inadequate and the sustainability of this aquifer is in question. Provision also comes from the Palestinian

¹ "Improved Water Supply, Water Quality and Water." Water Resource Development: USAID West Bank and Gaza.

² USAID.

³ Ibid.

⁴ Ibid..

⁵ David J. Scarpa, Alfred A. Rabbo, Reem Zeitoun, Water and Soil Environmental Research Unit. "Water Supply and Sanitation for a Group of Palestinian Villages in the Southern West Bank." (Bethlehem: Bethlehem University), 1.

⁶ "The Israeli-Palestinian Interim Agreement on the West Bank and the Gaza Strip: Annex I." Jewish Virtual Library.

Water Authority and private tanker operators.⁷ Rainwater is collected in household cisterns. Most springs have very high readings for hardness, as would be expected in carbonate rich aquifers.⁸

Therefore, the important priorities in the region are the management of water quality through conservation measures and the appropriate use of treated sewage water. However, no sewage water treatment plant exists to serve these communities. Another consideration must be given to food security that is not dependent on local water supplies but on access to world markets.

Access to world markets is dependant on the presence of a stable economy and political condition, which is based on a healthy workforce and community. This presently absent, due to the low living conditions, most of which are directly related to the quality of water available to them.

There has been considerable development in the Eastern Aquifer since 1992 and the water stress suffered by the villagers has worsened since 1999.⁹ The hill villagers, subsisting on agriculture, have been denied an adequate supply of domestic water, with only a little water available locally for irrigation. Rain-fed crops have been grown for millennia in this area, but in recent years attempts to irrigate have met with mixed results. At the same time, population growth and local expectations for development have increased water demand.¹⁰ However, the political situation has prevented alleviation of this water crisis. The economy has been in continual decline and future prospects look bleak.

The other setback of the region, unemployment, remains very high (between 25-80%) depending on location, with greatest hardship in the hill villages.¹¹ Most village economies used to be sustained by employment in Israel, which, for the most part, is no longer available. During the relatively dry period, the basic economy of these villages and towns, which became completely dependent on the sale of mainly market garden produce, was massively reduced. The fact that major policy decisions and control of much of the water available in the Palestinian villages and

⁷ "The Israeli-Palestinian Interim Agreement."

⁸ AQUASTAT: FAO's Information System on Water and Agriculture. Land and Water Development Division: Palestine, 1998.

⁹ Scarpa, 3.

¹⁰ Ishaq Diwan, Michael Walton, J.W. Wright, Jr., ed. *Structural Flaws in the Middle East Peace Process: Historical Contexts*. "Between Jordan and Israel: The Economics of Palestine's Uneasy Triangle." (New York: Palgrave, 2002), 45-46.

¹¹ Scarpa, 4.

economic structure, in general, of the rest of the Authority belongs to the occupying power acted as the main deterring factor to developing effective pricing policies. Together with significant incidence of amoebic dysentery among both children and adults reported in most of the villages, the situation in the region is rather pessimistic.

While over-exploitation and the lack of water sources remain major concerns, especially in Gaza, Alvin Royer states that "the crucial problem is not scarcity but distribution inequity."¹² Estimates revealed that drinking water consumption in Palestinian villages was about one-third of that in the towns.¹³ The study mentions that "over half of the villages, housing about 37% of the population, do not have a piped drinking water supply and have to rely on roof-top cisterns or hand-carried sources from wells."¹⁴ Among refugees, about 40% of camp residents in the Gaza Strip had no internal plumbing.¹⁵ These stark inequities clearly stand out.

Considering all the complications there seems to be no clear policy with respect to local water markets and no framework for promoting and regulating these markets. Similarly, property rights over wells and springs remain unclear in certain areas, leading to uncontrolled use and to possible conflicts among competing users.

Palestine has a low capacity to adapt to the economic and political problems that it faces.

Agriculture is not only an important source of livelihood; it is, especially for the villages, an essential provider of food. Diversification is, therefore, not an easy option.

As a way out some researchers propose to alleviate the stress on the usage of appropriately treated waste water, rain harvesting and spring water. However, such suggestion assumes that the economy of the state is capable of providing livelihoods and earns sufficient money from exportable goods on the world markets to allow food security to be assured in imports from countries with a food surplus.¹⁶ In other words, it assumes that people are capable of entering the virtual water trade market, which is far away from the reality right now.

¹² Diwan, 115.

¹³ Diwan, 115.

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Scarpa 6.

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