

Extending Egypt's Al Salam Canal to the Palestinian State

by Kermit Zarley 1/24/2005

Introduction

In my book, *Palestine Is Coming: The Revival of Ancient Philistia* (1990), I proposed solving the Israeli-Palestinian conflict by creating a Palestinian state predominantly in “the land of the Philistines.” The Philistines were the archrival of ancient Israel and from whom the Palestinians derive their name. This territory would consist of the Mediterranean coastal plain beginning in the north at the Nahal Sorek, located about ten miles south of the center of Tel Aviv, and extending south about eighty miles to the Wadi el Arish. With the Mediterranean Sea as its entire western border, it would reach eastward 10-15 miles to the Shephelah in the north and 25-50 miles to Beersheba and Kadesh Barnea in the south. This somewhat rectangular-shaped Palestinian state that bulges in the south would represent a very expanded Gaza Strip. In this scheme, Israel would forfeit all of its coastal territory south of metropolitan Tel Aviv, including the Gaza Strip, yet retain all of the West Bank, and Egypt would relinquish its northeastern Sinai territory between the Wadi el Arish and Gaza. This undeveloped Sinai territory would comprise nearly one-third of such a Palestinian state, making Egypt a big player in this proposal.

Egypt has always indicated its desire to help solve the Israeli-Palestinian conflict. This has especially been so because the Arab world so heavily criticized Egypt for signing the 1979 Camp David Accords with Israel. Also, this treaty states, “Egypt, Israel, Jordan and the representatives of the Palestinian people should participate in negotiations on the resolution of the Palestinian problem in all its aspects.” Perhaps no one has been more earnest to do so, and expressed more wisdom about this problem, than has Egyptian President Hosni Mubarak throughout his 23-year tenure.

At the time I wrote my book, I thought there were two drawbacks to my proposed: (1) the necessary relocation of peoples and (2) lack of water for the Palestinian state. In my book I explain, “Although the northeastern Sinai is arable, sparse rainfall makes it agriculturally undesirable” (p. 175). Then I suggest that the Israel National Water Carrier (Kinnert-Negev Conduit)—a canal system that originates at Lake Kinneret (Sea of Galilee) and extends southward to just outside the Gaza Strip—be extended to supply water to this northeastern portion of the Sinai that would also go to the Palestinians. Israel was doing this—extending its National Water Carrier into this region—before it returned the entire Sinai Peninsula to Egypt as the primary precept of the Camp David Accords. However, I acknowledge in my book the insufficient water supply in Lake Kinneret and that the Dead Sea has for a long time been drying up due to Israel and Jordan using too much water from Lake Kinneret and the Jordan River. So, I still regarded the scarcity of water as a serious problem for my proposed location for a Palestinian state.

Water programs could be implemented in the northeast Sinai to support more population there. Bahay Essawi, former geologist with Egypt's Water Resources Ministry, claims that more underground water could be extracted and cheap dams constructed (especially

in the Wadi el Arish basin) to catch seasonal rainfall.¹ But such programs would not be enough to sustain a sizeable Palestinian population in the region.

However, in 1999 the idea occurred to me of transporting water via a canal from the eastern tributary of the Nile River eastward to this proposed Palestinian state. The Nile River is the longest river in the world, being 4,187 miles in length. After doing a little research, I thought there were several benefits to this scheme that could make it very attractive for both Egypt and the Palestinians. These include: (1) the Nile River unnecessarily empties a large volume of water into the Mediterranean Sea that could be used for development, (2) the region over which the canal would proceed is flat lowland that would require little lifting of water, which is costly, (3) the distance for the canal to traverse is only about 150 miles and (4) Egypt could use such a project to agriculturally develop its own territory through which the canal would extend. This land is quite arable yet largely undeveloped and unsettled due to lack of water. It seemed to me that the only obstacle would be to negotiate the north-south Suez Canal with tunnels.

I was particularly interested to know the volume of Nile water that drains into the Mediterranean Sea. Egypt's 1959 Nile River Agreement with Sudan guarantees that 55.5 billion cubic meters (BCM) per year will flow into its Nile River basin. Sudan is Egypt's immediate neighbor to its south and the country through which the Nile River enters Egypt. Indeed, this volume of water is the approximate amount that flowed into northern Egypt's High Aswan Dam on the Nile River during the 1980s. During this same period, a fluctuation of between 14 BCM and 12 BCM per year drained into the Mediterranean Sea through the Nile River's two tributaries. Thus, 22% to 25% of the total of Egypt's Nile water drained into the Mediterranean Sea every year during this time.

Surely, I thought, a portion of this Nile water that empties into the Mediterranean Sea could be used to irrigate very arable land all the way from central northern Egypt to where I was proposing that a Palestinian state be located. Such a canal would make this entire region, including that of the Palestinian state, "blossom like a rose." With ample water, this proposed location for a Palestinian state would be much better than the Swiss-cheese West Bank-Gaza-corridor that the Palestinians and the world had been focusing on for so long. With such a canal, water would no longer be a drawback to my proposal.

Canal Vision

But I didn't do enough research. If I had, I would have learned that my idea of transporting Nile water via a canal to the area I was proposing had been around for a long time. Not only that, I would have learned that *it is already happening!*

The idea seems to have originated with the Jews in the late 19th century. Theodor Herzl, the founder of modern Zionism, thought of it and wrote a novel about it. And Zionists have been studying the issue ever since. Chief among them has been Dr. Elisha Kally, head of Israel's water planning agency from 1964 to 1976. He wrote two books in which

¹ Cherif Cordahi, "Egypt-Water: Too Little to Go Around, Too Precious to Waste," *Inter Press Services*, June 20, 1995, n1.

he proposed the feasibility of transporting Nile water via canal to Gaza and perhaps join there with Israel's National Water Carrier.²

When Egyptian President Anwar el Sadat made his historic trip to Israel in late 1977, he delivered a dramatic speech to Israel's Knesset that led to peace between Egypt and Israel. While there at Haifa, he surprisingly announced to the Jewish people that Egypt would build a canal to transport Nile water to Israel's Negev. When Sadat signed the Camp David Accords with Israel, in 1979, he further announced that Egypt had already begun designing the canal project to bring Nile water through the North Sinai to connect with Israel's National Water Carrier near Gaza and thereby provide needed water to Israel's Negev. Sadat called his proposed canal *al-salam*, meaning "the peace;" thus, it came to be called "Al [=El] Salam Canal." The agreement was that Israel would receive 1% of Egypt's share of Nile water. Soon afterwards, in another peace overture, Sadat wrote to Israel's Prime Minister Menachem Begin that Egypt would even allow Nile water to go all the way to Jerusalem. Sadat later explained in a letter to King Hassan II of Morocco that he made this offer to Begin "with the condition that the Jerusalem and West Bank issues be solved," referring to Palestinian demands. Begin replied to Sadat in a letter, "The transfer of Nile water to the Negev is a magnificent idea and truly a monumental vision." But he said "no thanks" to Sadat's offer because it was contingent on Israel conceding East Jerusalem to the Palestinians.

The Arab world strongly opposed Sadat's vision to transport Nile water to Israel. Ethiopia, one of Egypt's southern neighbors and a major country through which the Nile River travels, declared its opposition to the plan and consequently threatened to prevent some Nile water from flowing to Egypt. Sadat retaliated by announcing that Egypt would declare war on any nation that threatened its Nile waters. When Sadat learned of a possible military coup in Egypt because of his plan to divert Nile water to Israel, he quickly discontinued that part of his plan. Nevertheless, Sadat ordered feasibility studies in 1979 for his proposed canal, and the excavation of it was started prior to his being assassinated in 1982.

Canal Design

As the years transpired, the design of Al Salam Canal was altered, enlarged and improved. The "Land Master Plan" (LMP) was established in 1986. It provided two branches: Al Salam Canal West, which would proceed west across far northern Egypt, and Al Salam Canal East, which would extend east into North Sinai. Water began to flow through Al Salam Canal East in 1987 as the project's construction continued downstream. The plan has been for this eastern branch to be completed before beginning construction of its western branch. Al Salam Canal East thus begins at the city of Adlia on the right side of the Damietta Tributary just before it empties into the Mediterranean Sea. At this point the canal is supplied with 50% of its water from the Nile River and its remaining 50% comes from nearby treated agricultural sewage water from two drainage basins—the Serw and Hadous drains in the Delta—that is mixed with the Nile water. Al Salam Canal

² *The Struggle for Water* (1974) and *Water in Peace* (1989). However, former Israeli Prime Minister Shimon Peres states in a chapter about Israel's water needs in his book, *The New Middle East* (1993, p. 130), that transporting Nile water to Israel does not make as much sense as constructing a north-south water pipeline from Turkey, which has an abundance of water, to supply water to Syria, Lebanon and Israel.

East and West is the biggest project Egyptian President Mubarak has ever undertaken in his 23-year presidency.

In early 1997, Egypt announced an even larger water-land reclamation project. It is called the “South Valley Agricultural Development Project” (SVADP). It involves Lake Nasser, a huge reservoir on the Nile River that was created by constructing the Aswan High Dam in the 1960s. Water in the Toshka basin behind Lake Nasser will be diverted westward through the huge, newly constructed New Valley Canal to flood surrounding valleys and irrigate 500,000 acres for farming.

Egypt is the most populous nation in both the Middle East and North Africa. It has 73 million people and a high birth rate. Since Egypt’s land is mostly inhospitably dry desert, 98% of its population lives on 5% of its land, which is concentrated in the Nile Valley. These water reclamation projects are intended to help relieve overcrowding in Egypt’s Nile Valley. The Egyptian government expects that NSADP will enable perhaps as many as 3 million Egyptians to migrate to this canal development area, which has contained only about 50,000 indigenous people, mostly Bedouin.

The design and construction of Al Salam Canal East and its settlement areas is called the “North Sinai Agricultural Development Project” (NSADP). Egypt’s Nile River divides just below Cairo into two branches, each of which traverse through the Egypt’s large Delta and empty into the Mediterranean Sea. The Rosetta Tributary is the western branch and the Damietta Tributary is the eastern branch. Al Salam Canal East begins on the right side, and near the mouth of, the Damietta Tributary, at the city of Adlia. From here the canal extends 86 km in a southeasterly direction and then in an easterly direction to the Suez Canal. After going under the Suez, (at this point it also becomes known as “Al Sheikh Gaber al-Sabah Canal”) the canal enters the North Sinai and extends easterly an additional 175 km to its termination near the Wadi el Arish at a point directly south of the city of El Arish. Thus, Al Salam Canal East extends a total of 261 km or 162 miles.

The first phase of Al Salam Canal East was completed in 1997. That’s when President Mubarak pushed the button at Ras el-Esh, directly south of Port Said and on the west side of the Suez Canal. The waters of Al Salam Canal then passed under the Suez Canal through four large tunnels, each five meters in diameter, that drop down 14 meters and extend 770 meters. Called the “El Salam Siphon,” it alone took three years to build and accommodates 160 million cubic meters of water per second.

Canal Funding

Al Salam Canal East was commissioned by the World Bank and developed by Egypt. Its estimated cost to build was \$2 billion. Foreign governments are funding only 16.5 % of its cost, which is being born mostly by Kuwait but also Saudi Arabia and Japan.

The Egyptian government will immediately regain some of the cost of the canal by selling plots of feddan to small farmers as well as large-scale farming coops. (A feddan equals about 1 ¼ acre.)

Canal Development

The primary object of Al Salam Canal is to develop agriculture and settlement through land reclamation. A total of 220,000 feddans of agricultural land will be developed between the beginning of the canal and the Suez, and 400,000 feddans will be developed between the Suez and the end of the canal. Of course, the project consist of a complete irrigation-drainage network in the targeted areas that includes many sub-canal, pumping and lifting stations, bridges and roads.

Five specific territories along the canal will be developed because their soil types are sandy loam and therefore suitable for agriculture. These five large parcels are called “blocks.” Fifty-five villages are planned throughout these five blocks. Each of these villages will be built on twenty-three feddan. These blocks are expected to help relieve the overcrowded conditions in Egypt’s Nile Valley.

There are several attractive features about building a canal that would transport Nile River water horizontally in far northern Egypt. The most obvious reason is that the Nile River deposits a large amount of water into the Mediterranean Sea through its two branches, especially in the wintertime, and this water could be transported via canal to reclaim desert land and thereby significantly increase agricultural production plus provide a large settlement infrastructure that would relieve serious overcrowding in Egypt’s Nile Valley. The second reason is that Egypt’s Delta and North Sinai near the coast are relatively flat with little elevation, so that the canal does not have to ascend much and therefore use many pumping lift stations, which would require substantial additional energy costs to operate. Thus, the first four zones, also called “blocks,” that Al Salam Canal will irrigate are lowlands. But this is not the case with Block Five, located at the end of the canal. It ascends to some elevations exceeding 100 meters above sea level. Critics allege that supplying water to Block Five may be cost prohibitive for this reason and others.

Block Five

Originally, Al Salam Canal East was designed for only four blocks. In 1990, at the request of the North Sinai Governorate, the canal design was extended in the North Sinai to include Block Five, called “El-Sir & El-Kawareer Zone.” It extends to the Wadi el Arish with a barrier to be constructed 3km beyond it. Block Five comprises the northern Central Upland Sands, the Wadi el Maghara plain and the Wadi el Arish valley.

I was delightfully surprised when I learned about Al Salam Canal. But I was ecstatic when I discovered that its construction has recently been completed and ends exactly where I suggested in my book that the southern border of the Palestinian state should be located—at the Wadi el Arish, the usual border of ancient Egypt. Thus, *Al Salam Canal East fits very nicely with my geographical proposal for a Palestinian state.*

Block Five, however, has been very controversial. The main criticism has been that adding Block Five brings it close to Israel’s Negev (actually twenty-five miles away) and therefore the border between Egypt and Israel. With Block Five allegedly being cost prohibitive, many people had suspected that Egypt intended eventually to extend the canal into Israel to fulfill President Sadat’s declaration to supply water to Israel.

However, when President Mubarak spoke at the Al Salam Siphon ceremony in late 1997, he adamantly insisted that Egypt will never supply Nile water to Israel, and he and other government officials have repeatedly stated this. And Mubarak explained that Egypt cannot do so because of its 1959 Nile River treaty with Sudan and that Egypt would begin to experience an insufficient water supply at the turn of the century.

Political opposition to the entire Al Salam Canal had caused Egypt to abandon the project in 1991 and then reactivate it in 1992. For instance, The World Bank had commissioned environmental studies for the project that resulted in a 413-page summary report called “NSADP-EIA” (Environmental Impact Assessment), which was produced in 1992. This report contained both positive and negative assessments about the canal’s projected impact on the environment. Due to World Bank rules, Egypt had the sole authority whether to release the report to the public. It did not do so, underwent heavy criticism and released it in 2000.

This NSADP-EIA report about possible negative impacts on the environment concerns mostly Block Five. Thus, there has been particular opposition to Block Five from both inside and outside Egypt. The main problems of the canal project are expected to be the following: increased water salinity, contaminated ground water in wells and flowing into Lake Bardawil due to canal water being unfit for human consumption by containing allergens and carcinogens, increase in water-borne diseases, loss of rich archaeological evidence and displacement of indigenous people, who are concentrated more in Block Five. And the report strongly recommends against locating the canal on land more than 100 meters above sea level or in areas with very active sand dunes unless the water is tunneled there, which concerns mostly Block Five. Block Five land fluctuates in elevation from 50 to 150 meters above sea level whereas all four other blocks are below 50 meters in elevation. The report recommends that any financing of the project be conditional on Egypt taking remedial measures toward these negative impacts, which it has been doing ever since the report was produced.

During the early 1990s, there was uncertainty how far Al Salam Canal would extend. In mid-1993, the Egyptian Governor of North Sinai surprisingly announced that the canal would extend beyond Block Five and reach another twenty-five miles to Palestinian Rafah, located on the southern border of the Gaza Strip. There is an Egyptian Rafah immediately adjacent to, and south of, the Gaza Rafah. But this announcement was soon withdrawn. Two months later, the PLO reportedly asked Israel to approve of “bilateral projects” involving the unification of the two Rafahs.³ Some people speculated that these “bilateral projects” included extending Al Salam Canal East to both Rafah’s.

Archaeology

One of the most destructive impacts the canal will have is on the rich and unexcavated archaeological remains that exist mostly in Block Five. For instance, in the mid-1970s an ancient Egyptian canal dating to the early 2nd millennium B.C. was discovered in Egypt’s North Sinai. It has come to be called “the east frontier canal.” In 1991, Egypt appealed to

³ Reported in an article in the reputable Cairo weekly, *Ros Al-Yousef*, October, 1993, according to Ronald Bleier, “Will Nile Water Go to Israel?: North Sinai Pipelines and the Politics of Scarcity,” *Middle East Policy*, Sept. 1997, vol. V, num. 3, pp. 113-24.

the international archaeological community to undertake a salvage effort, due to the canal, in this archaeologically untapped area. Dr. James Hoffmeier of Trinity International University near Chicago now heads up the East Frontier Archaeological Project. It is now believed that this ancient canal was interspersed with forts and linked marshes and lakes strictly as a defense to repel invasion and infiltration of Egypt from foreigners coming from the east.

Political Repercussions

Egypt shares the Nile River with thirteen riparian nations, that is, nations that either border on the Nile River or its basin runs through their land. The Nile runs through nine basin nations. Some of these nations have been complaining that there needs to be a new Nile River treaty that involves all of the Nile riparian nations. Egypt's use of Nile River water is based on its colonial-era, 1929 Nile water agreement with Britain and its 1959 Nile River Agreement with Sudan. Under the latter, Egypt is apportioned 55.5 BCM of Nile water, which is 16% of its total.

The main problems with the old treaties are that they do not adequately address the needs of the other riparian nations and they provide Egypt with sole authority to approve any developmental project involving Nile water upstream. In late 2004, six Nile basin nations, without Egypt, held a one-week conference to discuss need for a new treaty. They somewhat angrily demanded that a new Nile water treaty be drafted that involves all thirteen Nile riparian nations. Some of these states have indicated in the past that continuing failure to attain a new and fair Nile River treaty could lead to armed conflict. Such a treaty might take into consideration the water needs of the Palestinians.

As stated above, Egypt's relations with other Nile basin nations have sometimes been constrained concerning the use of Nile water, caused in no small part by Sadat's announcement to send some of it to Israel. Sadat admitted publicly about the time he signed the Camp David Accords, "the only matter that could take Egypt to war again is water." In more recent years, relations between Egypt and its two southern neighbors, Sudan and Ethiopia, have sometimes been strained over Nile water. In 1989, it became known that Israeli engineers were helping Ethiopia plan to build forty dams on the Blue Nile and Sudan to build irrigation systems on the Nile, all of which would reduce the flow of Nile waters downstream to Egypt. Egypt immediately threatened Ethiopia with military action. And in late 1990, Egypt reportedly blocked an African Development Bank loan for Ethiopia that it needed to finance its water development projects. In 1995, Egyptian President Mubarak visited Addis Ababa, Ethiopia, to attend a summit meeting of the Organization of African Unity and barely escaped an assassination attempt. He accused the Sudanese government of responsibility for the attack. Shortly thereafter, Egypt took control of a disputed Egypt-Sudan border, and border clashes ensued. Then Sudan reportedly threatened to withdraw from its 1959 water treaty with Egypt and cut off Egypt's Nile River water quota. Mubarak countered by saying that he had remained silent despite years of Sudanese provocations, but he would no longer do so. In sum, Egypt has repeatedly made it clear that it is prepared to go to war to preserve its just apportionment of Nile River water.⁴

⁴ Peter H. Gleick, ed., *Water in Crisis: A Guide to the World's Fresh Water Resources* (New York: Oxford, 1993), 94.

For a long time Ethiopia has complained about the inequity of the Nile water treaty between Egypt and Sudan. And Ethiopia has expressed strong opposition to both Egypt's Al Salam Canal and its Toshka project. Ethiopia is prevented from implementing its planned water development projects because Egypt has sole authority over such decisions due to the 1959 treaty. Yet over 80% of Nile water flows through Ethiopia.

Some environmentalists warn that with increasing world population and water pollution, "water wars" could eventually encompass the globe. Other than perhaps the Jordan River, there is no more hot spot than the Nile River, which affects more nations and people than any other river in the world. Dr. Boutros Boutros Ghali, Former Egyptian Foreign Affairs Minister and later UN Secretary General, highlighted the tension about Nile water between riparian states and concluded, "People have gone to war over less important issues."⁵ The next year he was widely quoted as saying, "The next war in the Middle East will be over water, not politics." And Ismail Serageldin, former vice president of the World Bank, later stated, "Many of the wars of this century were about oil, but wars of the next century will be about water."⁶

Presently, the political atmosphere concerning the use of Nile River water is one of cooperation between states. But the potential for serious water conflict is always there, especially between Egypt and its two closest southern neighbors—Sudan and Ethiopia. Thus, the UN organized an international "Water for Food and Ecosystems" conference that was held in late 2004 in Addis Ababa, Ethiopia. Experts there said that Nile water problems could lead to armed conflicts among riparian nations.

To aid Israel's economic integration into the Arab world, and thereby help improve relations between Israel and its neighbors, the U.S. has started an economic program with Jordan (in 1998) and Egypt (in late 2004) called QIZ, an acronym referring to "Qualified Industrial Zones." It is part of U.S. President Bush's plan to create a Middle East Free Trade Area (MEFTA). A designated industrial zone in Jordan or Egypt becomes qualified to export its products to the U.S. duty-free if they contain at least 8% of materials from Israel. Since this program will be applied to the Suez Canal, it may be applied in the future to some of the blocks associated with intersecting Al Salam Canal.

Conclusion

The best solution to the Israeli-Palestinian conflict is one that will provide maximum security for both parties and result in a win situation for all parties involved. I believe my proposal will accomplish these objectives whereas a Palestinian state in a Swiss cheese West Bank-Gaza-corridor will not. My proposal of two states having no non-contiguous land and lying side-by-side with a minimal border between them will achieve the maximum security conceivable between the two parties. The U.S. will win as peace broker if this conflict is resolved amicably, no matter what the geographical arrangement. Israel will win because it gets exactly what is claimed in its Proclamation of

⁵ Norman Frankel, "Conversations in Cairo: An Interview with Dr. Boutros Ghali," *Middle East Focus*, Summer 1990, 27.

⁶ Mary H. Cooper, "Global Water Shortages," *Congressional Quarterly Researcher*, December 15, 1995, vol. 5, no. 47, 1115.

Independence, which is all of its ancestral land, including all of the West Bank. The Palestinians will win because they get a contiguous territory that equals the size of the entire West Bank and Gaza Strip and is a better land that can be fully developed, which is not the case with the West Bank. And they will have an ample water supply that does not depend upon Israel. Indeed, the Palestinians' present water supply in the West Bank and Gaza only meets minimal needs and cannot accommodate any meaningful future economic development.⁷

But how does Egypt win with this proposal? Until recently, I did not know? Egyptian journalist Subhi Kahhaleh wrote in 1981 that Egypt and Israel intended to overcome opposition to their plan to transport Nile water to Israel (or Egypt eventually cutting off the supply) by also supplying this water to the Palestinians living in the Gaza Strip and the West Bank.⁸ The obvious strategy was that sympathy for the Palestinians would help guarantee Nile water to Israel. Similarly, opposition of Nile riparian nations to Egypt's Al Salam Canal likely would be averted if Egypt relinquishes its northeastern Sinai territory, between the Wadi el Arish and Gaza Strip, to the Palestinians and extends the canal there to provide needed water to Palestinians.

So, there is a psychology to this proposal that makes it appealing. Israel gets all of its ancestral land as claimed in its Proclamation of Independence. The Palestinians get all of "Palestine," as claimed in their Palestinian National Charter, if that word is defined as in antiquity, which was "Philistia." And there is the psychology, stated above, that deflects criticism of Al Salam Canal because of its providing water and land to the Palestinians in which to establish their fully independent and sovereign state.

⁷ Stephen Langfur, "Oslo-2 and the Water Question," *Challenge* (Jerusalem), Nov.-Dec. 1995, pp. 4-7.

⁸ Subhi Kahhaleh, "The Water Problem in Israel and Its Repercussions on the Arab-Israeli Conflict," *Inter Press Services*, Beirut, paper #9(E), 1981, p. 50. Indebted to Ronald Bleier, "Will Nile Water Go to Israel?", p. 114..