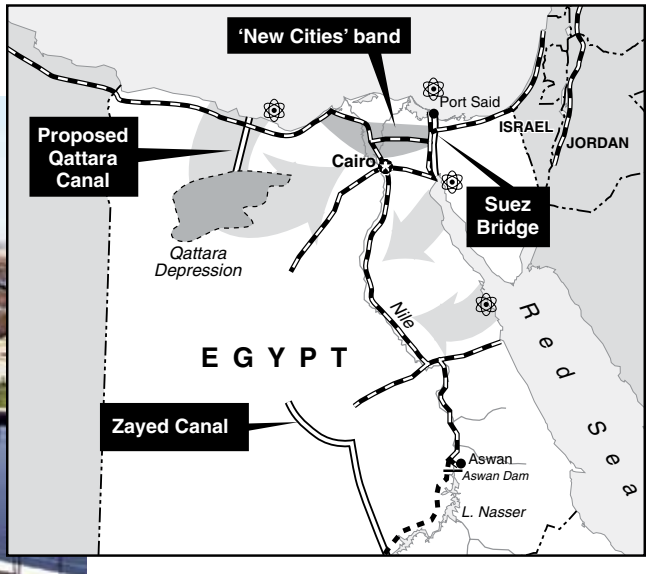
Can Egypt's Development Spur African Economic Renaissance?

by Hussein Askary and Dean Andromidas, Part II

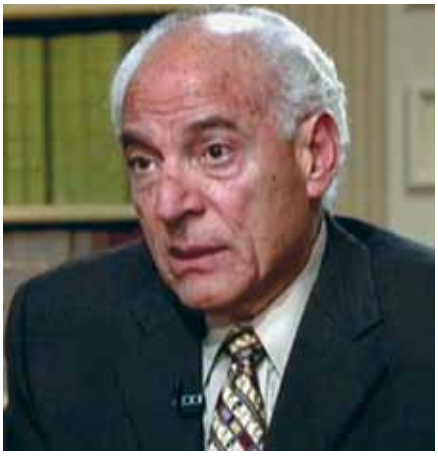
The first part of this series appeared in the Sept. 5 EIR.

Sept. 6—While news coverage from Africa has been dominated by the outbreak of the Ebola epidemic in Western Africa, and the horrific crimes committed by the jihadist Salafi group Boko Haram in Nigeria—both are real tragedies and a result of criminal policies that have kept Africa underdeveloped—a spark of hope is emerging from East Africa that can eventually reverse four decades of disastrous economic policies on the continent. Egypt's revival of its economic development programs, such as building a New Suez Canal, as reported in *EIR* last week, (and the Toshka project as described below) combined with the emergence of a new world economic order through the BRICS New Development Bank, can trigger a movement to start, revive, and complete a number of key infrastructure development projects in all of Africa.

Among those projects are those which have been

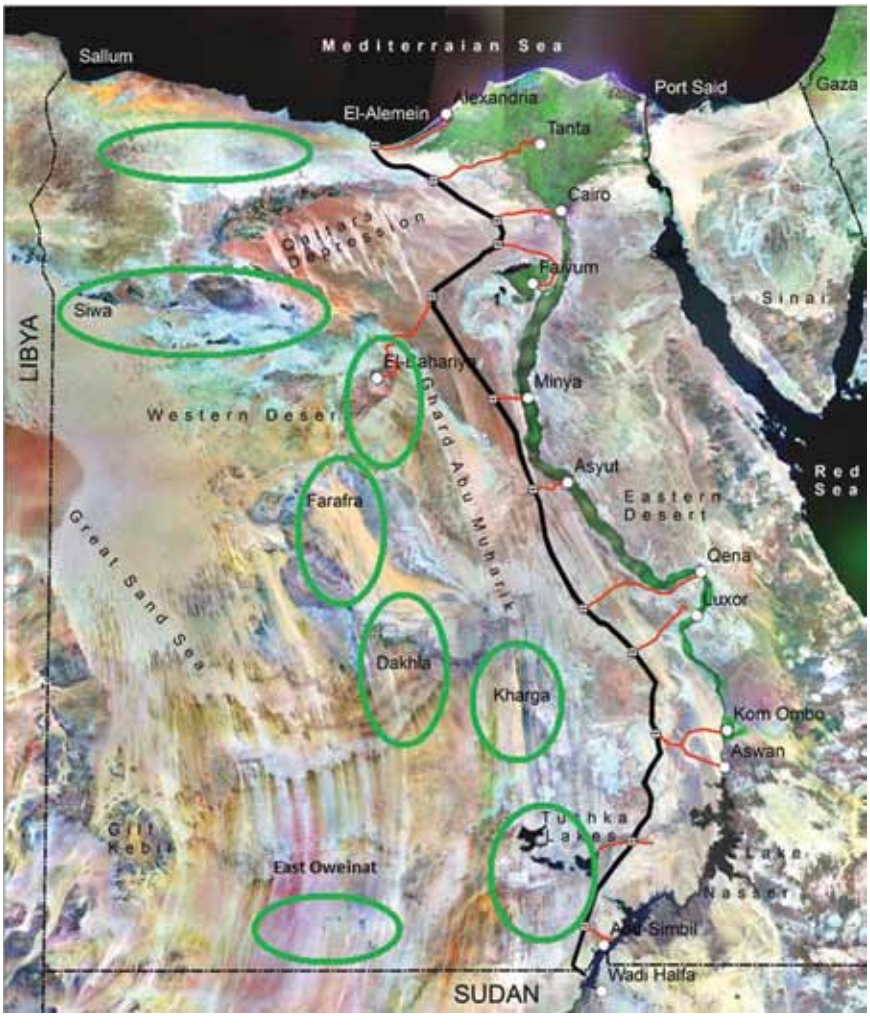


The Sheikh Zayed Canal (left), a part of the Toshka project, now has over 50 km completed. The map shows projects as of 2003.



Dr. Farouk El-Baz

FIGURE 1
Baz Development Corridor, plus Agriculture



The Toshka project is the keystone of the New Valley Project: The chain of oases (circled in green) stretches along the "Development Corridor" project designed by Dr. Farouk El-Baz.

either directly sabotaged through Anglo-American geopolitical operations, such as the Jonglei Canal in South Sudan; slowed down, such as the Ethiopian dam projects, due to financial warfare by Europe and the U.S.; or never started, such as the Transaqua project to replenish the drying Lake Chad, and the Grand Inga hydropower project on the Congo River.

The European Union has intervened to stop any funding for Transaqua, and the British and U.S. governments pulled Chad for many years into an absurd proxy war with Sudan in the Darfur region. The genocide in Rwanda and Burundi that overflowed into Congo prevented the development of the water resources in the Great Lakes region and the Congo River Basin. Hundreds of similar water, power, and transport projects that have been on the drawing boards since the 1960s and '70s, are waiting to be revived and implemented to give Africa its long-awaited economic renaissance.

The right moment to bring that long-delayed justice to Africa has obviously come now.

Egypt Reclaims the Desert

Just a few weeks following the announcement of the New Suez Canal project by Egyptian President Abdel Fattah al-Sisi, Prime Minister Ibrahim Mahlab announced on Aug. 30 that the Toshka project was to be revitalized to become a national development project. Seventeen years following its launch under former President Hosni Mubarak, and several years of its near abandonment by former governments, this key project for the desert reclamation in Egypt, and the largest in the world, can become operational.

The project entails transferring water from Lake Nasser (the lake created by the Aswan Dam) to the western desert to reclaim and cultivate 1 million feddans (1 feddan equals 1.038 acres), and to build new urban and agro-industrial centers. The main pumping station, the key component of the project and the largest in the world, was installed in 2005, and a 50-km main

canal was built. The project, before it was dropped in 2008, had cost $1 billion.

Speaking during a tour of the Toshka region, Mahlab said a thorough study will be conducted to reassess the project, which has large infrastructure and road networks. Such a mega-project should not be neglected, said the prime minister; this would enable Toshka to become a real urban community, and help revitalize the whole region.

The Toshka Project and the New Valley

The Toshka project is the keystone of the New Valley Project, which includes the integration and development of the series of oases, starting from the East Oweinat Oasis deep in the southwestern desert near the borders with Sudan and Libya, extending northeast into Toskha and continuing north through the oases of the New Valley Province Al-Dakhla, Al-Kharja, Farafra, and northwestward to the Bahriya Oases and ending in the Siwa Oasis in the northwest of the country. This chain of oases stretches along the "Development Corridor" project designed by Egyptian-American scientist and former NASA engineer Dr. Farouk El-Baz (**Figure 1**).[1]

This oasis chain shares another feature: They all are located on top of the world's largest groundwater aquifer, the Nubian Sandstone Aquifer System. This massive body of fresh groundwater, which extends below Chad, Libya, Sudan, and Egypt, has enormous quantities of water that can be made available for many decades. Some scientists, like EL-Baz and Dr. Robert Bisson, who established the Mega Watershed Model, argue that such aquifer systems are not simply fossil and finite, but are subject to continuous recharge from precipitation over mountain ranges in the African desert.

In addition to that, these areas are rich with minerals and metal ores such as phosphate, iron, and cobalt, that could become a basis for expanded industrial activities, in addition to agriculture.

The Development Corridor proposed by El-Baz includes:

1. A superhighway to be built using the highest international standards, 1,200 km in length, from west of Alexandria to the southern border of Egypt;

2. Twelve east-west branches, with the total length of approximately 800 km, to connect the highway to high-density population centers along the way;

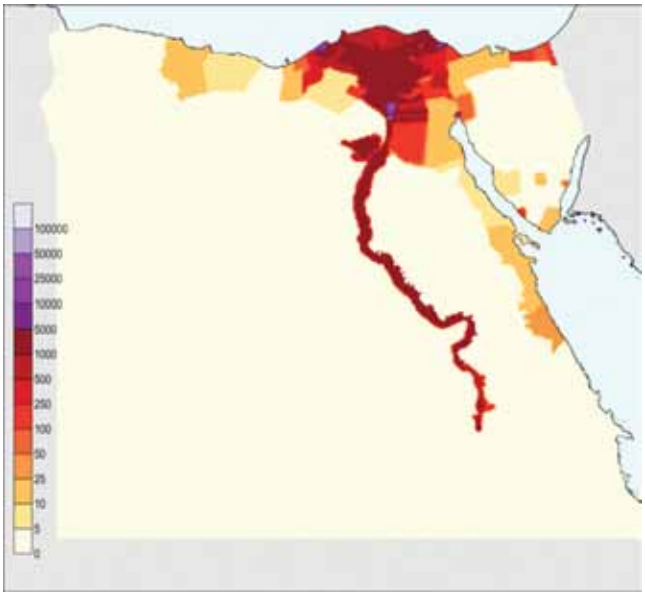
3. A railroad for fast transport parallel to the superhighway;

4. A pipeline from the Toshka Canal to supply freshwater, and;

5. An electricity line to supply energy during the early phases of development.

The Toshka project, together with other proposed projects, would, if developed, create thriving new communities, accommodating 16-20 million people, and millions of new jobs for the huge, young, unemployed, Egyptian labor force. This will unchain Egypt's potential from dependency on the narrow Old Nile Valley. Egypt's 87 million people live on only 5.3% of the land, in arable areas along the river and the delta, leaving vast swaths of desert areas uninhabited. This has made Egypt vulnerable to the Malthusian population reduction policies of the U.S. and Europe since late 1970s (**Figure 2**).[2]

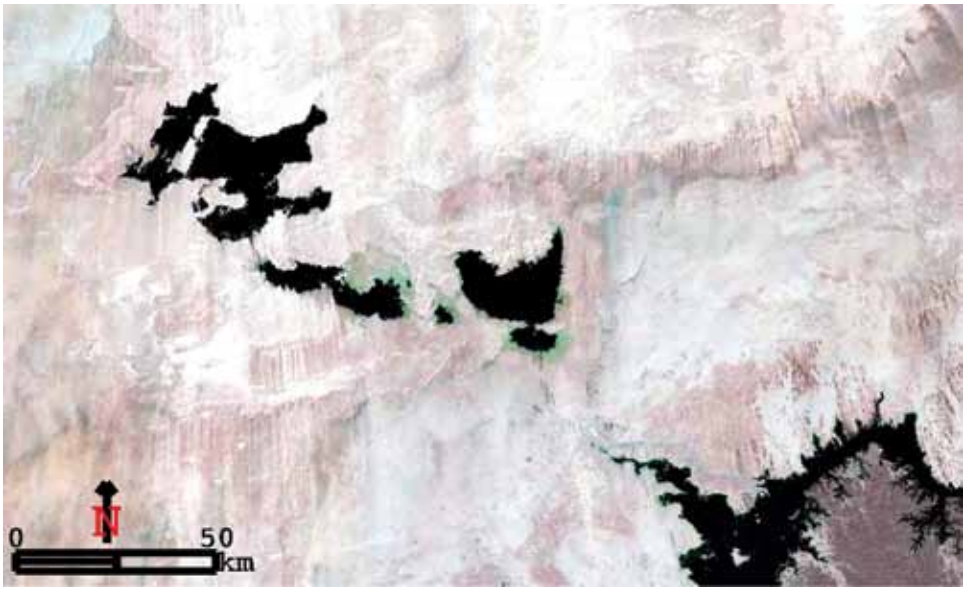
FIGURE 2
Egypt Population Density



Egypt's 87 million people live on only 5.3% of the land, leaving vast swaths of desert areas uninhabited. This has made Egypt vulnerable to the Malthusian population reduction policies of the U.S. and Europe since late 1970s.

1. See an interview with Dr. Farouk El-Baz in *EIR*, Sept. 14, 2007.

2. See Hussein Askary, "The Myth of Overpopulation in Egypt," *EIR*, Feb. 18, 2011.



Creative Commons

A NASA landsat photo of Toshka Lakes

Creative Commons/Remih

The new town of Toshka in the New Valley Project (2009). The project was begun in 1997.

Toshka

Indicating his scientific and mission-orientation toward development of Egypt, President al-Sisi issued a decree on Aug. 7, forming an advisory council of scientists and experts to consult on large development projects. According to Presidential spokesperson Ihab Badawy, who issued a statement to the Egyptian press, the council will report directly to Sisi, and includes Nobel Prize in Chemistry winner Ahmed Zewail; former NASA scientist and Director of the Center for Remote Sensing and Research at Boston University Farouk El-Baz; and a number of prominent and internationally celebrated Egyptian scientists. Sisi said, during his meeting with council members at the Ithadeya Presidential Palace Sept. 6, that the council will respond to religious and media questions, in addition to improving the quality of education, and linking it to the needs of the labor market.

Much of the Toshka project, begun in 1997, was completed in the first decade, including finishing the pumping station, and the first phase of the Sheikh Zayed Canal (named after Sheikh Zayed of the United Arab Emirates, who donated $60 million to the project), of which a length of over 50 km has been completed. The main canal has a cross section twice that of the Rhine-Main-Danube canal, is fully lined with a special type of cement, and is designed to carry water from the pumping station on Lake Nasser to the other four branches, to irrigate the newly reclaimed land. The four branches that were not constructed consist of two canals flowing west and southwest from Lake Nasser, with lengths of 120 km and 100 km respectively. The two others flow north and northeast with 120 km length each. On all sides of these branches, new land was supposed to be reclaimed and prepared for agriculture. A vast network of roads was built to bring machinery, building material and people to the region.

What Went Wrong

The rest of the project has stalled because President Mubarak, who was in full compliance with the IMF and

World Bank policies to make Egypt a food-exporting nation to earn hard currency to pay its debts, turned over most of the land to Arab princes and tycoons, who, for years, did almost nothing with it.

The new policy of President al-Sisi is a dramatic shift from that of Mubarak, who totally reversed the policy of the period of President Gamal Abdel Nasser (1956-70), including reversing the land reform that was providing farmers with their own land. Elsewhere in Egypt, large holdings were created by corrupt politicians and businessmen who were devoted to exporting crops. From 1996 to 2011, exports of food rose from $350.6 million to $4.086 billion! The result was that Egypt ceased to produce its own food and became the world's largest *importer.* Imports increased from roughly $3 billion to $12 billion in that same period. A great part of the state's deficit is due to subsidizing imported foreign foodstuffs.

Saudi Arabia and some wealthy Arab sheikhs received the lion's share of the Toshka Project land. KADCO, owned by Saudi tycoon El-Waleed bin Talal bin Abdul-Aziz, a member of the royal family, and chairman of the huge Kingdom Holding Company, is one of three main companies which each received 100,000 feddans to be cultivated. Egyptian authorities withdrew 75,000 feddans from the KADCO in April 2011 after it only reclaimed 17,000 feddans, and cultivated 3,000 feddans.

Al-Sisi's government has decided to give the investors a window of three years to finish cultivating their allocated lands in Toshka, and investors are now obliged to submit a schedule identifying stages of reclamation and cultivation. Cabinet spokesman Hossam al-Kawish told reporters in August that the government is presenting new legislation on the subject. "The Prime Minister charged the Minister of Agriculture with creating a document that obliges development companies working on the Toshka project to finish the required work within three years. If not, the land will be withdrawn from them and consultations will take place with landowners in Toshka."

The Ministry of Agriculture now has a plan to distribute 50% of the total lands among young college graduates by giving them five feddans each. The Long Live Egypt Fund, established in July by President al-Sisi, is set to finance the lands allocated to the youth. The project now aims to reclaim 108,000 feddans in the first phase, which will eventually increase to 1 million feddans, with the purpose of achieving food self-efficiency. As of 2014, only 55,000 feddans were cultivated. The first phase is to be finished within a year. Minister of Irrigation Hossam Moghazy said, "This project is not about irrigation and agriculture; it is a developmental project to get out of the narrow valley to the vast desert, which covers about 60% of Egypt."

Mahmoud Abu Zeid, the former Minister of Irrigation and Water Resources who helped initiate the project in 1997, said that reviving Toshka is "a great step, as we have already spent a lot of money on the agricultural infrastructure. Agricultural expansion is the most important part of the project, and it has stalled for a while, though its infrastructure, like the Sheikh Zayed Canal, has been prepared."

"The agricultural expansion in Toshka will depend on modern irrigation [pivotal sprinkler and drip systems] instead of flood irrigation [which consumes a lot of water]," professor of geology and water resources at Cairo University Abbas Sharaky told Al-Nahar TV Channel.

In the past, there was no effort to build political support among the population, resulting in "no societal acceptance" of the project, said economic and agricultural expert Sherif Fayad, adding that the political parties and civil society, at that time, did not promote or encourage the Toshka project, which contributed to the decline of public interest in the project.

"The lands were distributed among big investors who were not serious in reclamation expansion. Besides, they cultivated low-yielding crops that consumed too much water," continued Fayad.

Now there is obviously an effort to build support. According to the Egyptian newspaper *Youm 7*, popular TV anchor Moataz Abdel Fattah produced a program on the project when he visited Toshka in August. The program interviewed local people who pointed out the need to establish an actual community with proper facilities including schools, hospitals, etc.

"If we build an urban community, it will help residents who are searching for job opportunities to come as they will find all services they will need, like schools, houses, hospitals and others," one resident, a Mr. Fayed, explained. To create real communities in Toshka, the State should encourage settlers by providing other infrastructure like "water, electricity, roads, airports and sanitation," according to Fayed. "The state should view the revived project with a new economic philosophy and vision to best utilizes resources there in Toshka,"

Creative Commons

Egypt requires a vast expansion of it power and water resources, which can only be supplied by nuclear power for electricity and desalination. Here, an oil refinery at Lake Mariout near Alexandria, provides needed, but insufficient energy.

said Fayed. He continued "the agricultural sector of the project should adopt the approach of cultivating high-yield crops that do not waste a lot of water," suggesting palm trees, dates, and grapes. This, he said, requires the State to adopt legislation, as well as provide banks and farmers unions that can help youth with needed tools, fertilizers, and pesticides.

Agriculture Minister Adel al-Beltagy announced on Aug. 24 that the government is targeting 75% self-sufficiency in wheat production by the end of 2017. This will be accomplished by the implementation of a set of sound practices that can lead to increased production and reduce losses.

He said that his ministry's plan is to produce high-quality trefoil seeds, a vital crop for animal production, which could move up total output, and at the same time, diminish the area required for its cultivation, giving more space for wheat.

Minister of Supply Khalid Hanafy traveled to the U.S. in August where he was expected to sign contracts for three projects aimed at improving grain storage and distribution, according to *Al-Ahram* daily. These include a $181.7 million deal for restructuring and renewing 164 Egyptian wheat silos, applying modern storage technology to avoid waste. The second will be worth EGP1.1 billion [1 Egyptian pound = $0.14], and establish ten fruit and vegetable canning facilities. Hanafy said the project will reduce the cost of goods by 40%, while providing fresh vegetables for citizens.

The third project will be worth EGP700 million, and establish a factory specializing in producing storage technology and modern logistics to serve the local market, along with exporting to Arab and African countries. Arab companies will build 15 wheat silos in 11 governorates with a total value of EGP2.2 billion within the next 18 months, to be funded from a grant of $4.9 billion from the United Arab Emirates for establishing a totoal of 25 wheat silos with a capacity of 1.5 million tons.

While wheat and other staple products are an immediate security issue for the nation, in the long run Egypt should avoid dependency on monocultures. In the newly reclaimed areas, planting a variety of trees, plants, and crops will both help stabilize the soil, enrich it, and make the local climate milder, and thus reduce the amount of water used. Egypt should avoid the trap into which Saudi Arabia fell in the 1980s, when the Kingdom aimed at achieving self-sufficiency in wheat and other grain crops, by resorting to monocultures on vast areas of the Saudi desert. The soil gradually was depleted, and salinity increased, and after using 300 billion cubic meters of groundwater (equivalent to six years of Nile River flow), they had to abandon the project, leaving a vast desert where once wheat was grown.

Challenges and Opportunities

Finance: A major issue for Egypt is how to finance large-scale national development programs, as the Western financial institutions and governments have treated Egypt's needs for credit with utter cruelty. To finance the New Suez Canal project, the government resorted to the Egyptian people to finance it internally through debt certificates that can only bought by its citizens. This is a relatively healthy approach. But in order

to continue financing other development projects, that method would be exhausted soon, if each new development project were treated as a separate new enterprise. What Egypt needs is a Hamiltonian credit system for generating new national credit.[3] This credit mechanism can be supported by the newly established BRICS New Development Bank.

Power: Such a massive agro-industrial development program will also require enormous quantities of water and power. Concerning power, Egypt has a limited oil and gas resource base that can still be developed, but is totally insufficient. Without reviving the nuclear power program which has existed on paper since the 1960s, but never implemented, Egypt will have no chance of any real development, let alone at such a massive magnitude as described here.

President al-Sisi's government has already declared its intention to build the first nuclear power plant at Al-Dabaa on the Mediterranean coast. Given the negative attitude to nuclear power and technology generally in the U.S. and Western Europe, the most likely candidates for cooperatimg with Egypt on this project are Russia, China or South Korea. Egypt would need to install nuclear power plants along its Mediterranean and Red Sea coasts to power the planned growth of industrial and urban activities. In addition, these coastal areas can become self-sufficient in water resources through the desalination of seawater on a large scale, using the process heat generated in the nuclear plants.

Another near-term source of power is Ethiopia's offer to export, or even share, electric power from its under-construction Grand Ethiopian Renaissance Dam on the Blue Nile. Egypt's previous governments have refused to cooperate with Ethiopia, as they viewed this dam project as a threat to Egypt's water security.

Water: Egypt is almost completely reliant on the water of the Nile, which it shares with seven other African nations, each of which has its own requirements and aspirations for development. According to the 1959 Nile Waters Agreement between Sudan and Egypt, the two countries were given the right to the full utilization of the Nile waters. The agreement gave the two countries the right to almost the whole annual flow of the Nile, with Sudan to get 18.5 billion cubic meters, and Egypt, 55.5 billion. This has become a contested issue, as the other riparian nations further upstream (to the south) want to sign a a new agreement allowing them to have more equal rights to the water of the Nile.

In 1999, the Nile Basin Initiative (NBI) was adopted by all the riparian nations, aimed at creating a partnership mechanism to develop the river in a cooperative manner, share substantial socioeconomic benefits, and promote regional peace and security. However, the lack of the developmental vision among these nations and an artificial conflict of political, economic, and financial interests among them fueled partly by international geopolitics and financial warfare, led the upstream nations to form their own agreement in 2010, making Sudan and Egypt rivals over the water of the Nile.

However, Egypt's revival of its development program can become a model for the other Nile Basin nations and East Africa, which would benefit Egypt itself both in terms of more water resources, power, and commerce.

This will be the subject of the next part.

3. This was treated by author Hussein Askary in a separate memorandum. See "Proposal for an Egyptian Economic Independence, *EIR*, July 26, 2013.