

Egypt Mobilizes to Build the New Suez Canal

by Dean Andromidas and Hussein Askary, Part I

Aug. 29—Under the leadership of President Abdel Fattah al-Sisi, Egypt has joined the drive for a new world economic order launched by the BRICS countries at their July summit in Brazil. Great projects are underway for a New Suez Canal (which we discuss in Part I of this report), and the Toshka Project to irrigate half a million hectares of Egypt's western desert, and build new cities for millions of Egyptian citizens (Part II).

On Aug. 5, President al-Sisi presided over the ceremony commencing the construction of the New Suez Canal, as we reported in our Aug. 22 issue. By the next day, under the supervision of the Egyptian Army Corps of Engineers, 7,500 workers began digging. The goal is to double the throughput of the canal. Since it was nationalized by President Gamal Abdel Nasser in 1956, the cross-section of the canal has been enlarged by 400%, allowing it to accommodate the largest container ships and almost all of the largest bulk carrier and oil tanker classes. But today it has become a transportation bottleneck.

Egypt is the most populous nation in the Arab world, and it also lies on the path of the Maritime Silk Road and the Silk Road Economic Belt, which Chinese President Xi Jinping announced last October. The realization of these projects will open the way for development on a scale never seen on this planet. In allying with the efforts of the BRICS (Brazil, Russia, India, China, South Africa), Egypt can play a pivotal role in stopping the wars and sectarian conflicts that British-centered imperial forces have unleashed throughout Southwest Asia and Africa.

The potential for an African alliance for development is shown not only by recent developments in Egypt and South Africa. Ethiopia has resolved many of its internal political conflicts and is building huge dams for both hydroelectric power and irrigation, while negotiating with neighboring countries for shared use of the waters of the Nile. In the west is Nigeria, Africa's most populous state and a major oil producer, as well as oil- and mineral-rich Angola and the sleeping giant, Democratic Republic of Congo, whose water resources alone could save much of the continent from its current seemingly intractable water shortages.

Wars can only be stopped through the promise of economic development that can raise populations above the demoralization of civil and sectarian strife. This is the case in Egypt, whose internal conflict since 2011 has taken thousands of lives. In launching these mega-projects, President al-Sisi is refocusing the attention of Egypt's citizens, not on the demoralizing events and internal conflicts of the past, but on building a decent future for their children.

Two Mega-Projects

The New Suez Canal and Corridor Axis aims to double the throughput of the existing canal, which is arguably the world's



The Suez Canal Authority promotes its great project for a New Suez Canal. Inset, Egyptian President Abdel Fattah al-Sisi.

most important maritime transit link. The Egyptian plan intends to transform the entire zone of 76,000 square kilometers, with industrial, logistical, and technological centers, as well as universities. The logistics and industrial center in the Suez Canal Corridor will serve as a bridge to Asia, while fostering zones of peace and economic development that will radiate to what are now zones of war and destruction, notably in Israel-Palestine, Syria, and Iraq.

The Toshka agricultural project is located in Egypt's Western Desert, which is the easternmost extremity of the Sahara Desert. The project will transfer water from Lake Nasser, which is formed by the High Aswan Dam on the Nile, in cooperation with all the nations along the Blue and White Nile, all the way down to the beautiful Lake Victoria (which borders on Kenya, Uganda, and Tanzania).

The most important aspect of these projects is that they can serve as examples of how real economic development is not based on the "cargo cult" model of making the country attractive to foreign investment by low taxes and cheap labor for export-oriented industries that do not really contribute to the development of the nation. An infrastructure-driven policy not only develops the nation, but will also attract foreign investment for productive purposes, as opportunities beyond the so-called advantages of cheap labor reveal themselves, to the benefit of the country as well as the foreign investor.

By their very nature, these two projects are of continental character and impact. For Africa, Egypt (in collaboration with the BRICS) could become a key player in accomplishing the development projects that have either been halted by the criminal policies of the trans-Atlantic empire, or that never left the drawing board. Among these are the Jonglei Canal project, and extending a water-transport/power-development corridor from the Great

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Lakes Region and East Africa to the Mediterranean (as in the Africa Pass project of Aiman Rashed¹ and Ethiopia's dam-building projects). Other projects can also involve an alliance between Egypt and the BRICS, such as the Transaqua Project² to refurbish Lake Chad; the Port Sudan-Dakar and Djibouti-Dakar railways, and the Alexandria-Capestad railway project. The development of the war-ravaged Darfur province in Sudan, as well as South Sudan, will become an integral part of these projects.

The great projects now being built in Egypt form a beautiful complement to EIR's 2012 "Program for an Economic Miracle in Southern Europe, the Mediterranean Region, and Africa," which identified the infrastructure projects necessary to fully integrate the region, on both sides of the Mediterranean, into the Eurasian Land-Bridge.

New Suez Canal, Phase

The New Suez Canal Corridor Development Project will bridge Africa and Eurasia in a threefold manner. The first is its maritime function, linking the seas and oceans of Asia with the Mediterranean and the Atlantic; the second is the land corridor for railways and roads; and the third is an industrial and development hub radiating development to the north and east into Palestine, most immediately the Gaza Strip, Israel, Jordan, Lebanon, Syria, and Iraq, and across Africa.

The Suez Canal is currently a chokepoint for transport between Asia and Europe. Ten percent of the world's trade, or 18,000 ships per year, pass through this 163 km waterway, which, on average, is only 60 meters wide, at the average rate of 49 ships a day. The fact that the canal allows for only one-way passage forces ships to travel in convoys. Doubling the size of the canal will not only eliminate the need for these oneway convoys, which can cause 30-40 hours of delays; it will also double the number of ships able to pass in one day and will reduce passage through the canal from the current 18 hours to 11.

The first phase of the "New Suez Canal" project entails digging a new 35-km canal parallel to the old canal, from the Mediterranean south to the Bitter Lakes, and then doubling the size of the 37 kilometers of the old canal that lie south of these lakes. This requires the removal of more than 300 million cubic meters of sand. As of this writing, over 20 million has already been removed, through the work of close to 15,000 workers and 52 companies.

This phase of the project will cost an estimated \$4 billion. The government will not allow it to be financed with foreign loans or public shares on the stock market. Egyptians well remember that it was through taking out foreign loans to build the canal in the 18th Century, that the British Empire was able to turn the country into its colony.

Financing will be totally internal and will follow the example of Alexander Hamilton's sale of subscriptions to the Revolutionary War debt of the United States. The Egyptian government will sell debt certificates to Egyptian citizens denominated in 10, 100, and 1,000 Egyptian pounds, bearing 12% interest. Egyptians living abroad can buy certificates in dollars bearing 3.5% interest.

Thus the project will be built and financed by the Egyptian people as a whole.

Many Western shipping specialists have questioned the wisdom of such an expensive project at a time when world trade is stagnating. But Egypt is placing its bets on the BRICS' planned expansion of trade and economic cooperation, rather than the current system of dumping cheap commodities and raw materials on the collapsing European and North American economies.

For example, China and Asia require an expansion of food imports, especially grains and meat. The Chinese are seeking



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such imports from Eastern European countries that historically have been breadbaskets of the world, but since the collapse of the Soviet Union, they have had tremendous underutilization of their potential. Those exports will come through the Black Sea and Eastern Mediterranean ports and through the Suez Canal. Grains are carried in Suezmax bulk carriers.

This defines the importance of Suez as a global transport hub linking the Maritime Silk Road, on the one side, and the land routes on the other. They will not compete, but rather complement one another, in multimodal or combined transport systems that facilitate rapid and efficient world trade.

Today's long-distance shipping is dominated by super-ships, including tankers, bulk carriers, and container ships that displace up to 150,000 dead weight tons or more, considerably larger than the mightiest U.S. aircraft carriers. The largest of these container ships, the Triple E class operated by the Danish shipping giant Moller Maersk, with a displacement of 165,000 dead weight tons, can carry 18,000 20-foot equivalent units (TEUs), with cargoes valued at an average of half a billion dollars. If these containers were put on a railway, the train would stretch over 100 kilometers. These ships are so large that few ports can accommodate them, and they cannot pass through the Panama Canal or the Turkish Straits (the Dardanelles, Sea of Marmara, and the Bosphorus).

The canal zone's facilities are to be greatly upgraded, including several ports in the region. On the east side, Port Said, at the Mediterranean entrance to the canal, there is the Suez Canal Container Terminal, a modern terminal used almost exclusively for transshipments. Opened in 2004, it has doubled in size since then, and is now the largest container terminal on the Mediterranean. In addition to expanding the capacity of the container terminal, other types of terminals will be expanded, including the liquid cargo terminal, dry bulk terminal, agricultural shipments terminal, roll-on-rolloff ships terminal, and bunker terminal.

The new super-ships often unload 2,000 or more containers for transshipment to smaller ships and coasters that will call at ports in the Eastern Mediterranean. One of those smaller ports will be in Gaza, which must open as part of a lasting peace with Israel, and will link the new state of Palestine to the Maritime

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The Suez Canal at the end of Temseh Lake.

Silk Road. Other ports of call for these smaller ships would be Israel's two major ports, Ashdod and Haifa, Lebanon's Beirut, Syria's Latakia, Mersin on Turkey's Mediterranean coast, Izmir on the Aegean, and points on the Black Sea such as Odessa in Ukraine, and the Russian Black Sea ports where Russia plans to build a logistics center to import agricultural products from Egypt and other non-EU nations, in view of the present EU sanctions against it. These smaller ships will also pick up containers headed for Europe's Atlantic ports.

At the southern terminus of the canal is Port Suez, and, 17 km to the south, on the western coast of the Suez Gulf, is the port of Adabiya. Both are among Egypt's important industrial centers.

Fifty kilometers south of Suez is Sukhna, which is still under development. This is the first comprehensively planned port and is one of the so-called "third generation ports," equipped with the most up-to-date technologies to serve export and import operations for general cargo, bulk, and container handling.

The city of Ain Sukhna is home to Egypt's Special Economic Zone, a joint project with China's Tianjin Investment Holdings. Opened in 2006, it is modeled after the SEZs in China, which host export-oriented industries. China plans to build five such zones in Africa, where Chinese companies could establish factories. Ain Sukhna is the first.

Railway links between these ports in the south and those in the north will be built in order to allow ships to unload their cargoes for transshipment to points north without going through the canal. In addition, tank farms (depots) for liquid cargoes, grain storage facilities, and bunkering facilities will have to be expanded. Shipyard and drydock capacities will have to be expanded to accommodate the super-ships.

Phase II: Inter-Continental Railway Hub

Egypt is planning six new tunnels under the enlarged canal, facilitating the rapid development of the vast, underdeveloped Sinai Peninsula east of the canal. At least two of these will be railway tunnels, linking Eurasia and Africa. Virtually all the nations on both sides of the Eurasia-Africa divide have launched railway projects in the last ten years, with Chinese, Russian, and European participation, but most have not been completed because of ongoing wars and conflicts in Southwest Asia and Africa.

The Trans-Mashreq High-Speed Railway is being built to the east of the canal and the Trans-Maghreb High-Speed Railway from the west.

Egypt has plans to extend its railway right up to the Gaza Strip, where a rail link could follow the coast through Gaza City

to the north—assuming a peace agreement between Israel and Palestine—linking it to Israel's coastal cities, including Ashdod, Tel Aviv, and Haifa, Israel's largest port. Continuing north, the line would reach Beirut and other coastal cities in Lebanon, continuing to the major cities along the Syrian coast, now a war zone, and then into Turkey, where sections of that country's high-speed-rail network are already functioning.

Another line would go east toward the twin Red Sea ports, Eilat in Israel and Aqaba in Jordan; the latter is planning a north-south rail line that would link to the Syrian network in the north and Iraq in the northeast. This would enhance Jordan's role as a key transshipment country, transforming Aqaba into a port of entry for shipments to and from Asia and the west coast of Africa, to all of Southwest Asia and beyond.

On April 2014, Jordanian Prime Minister Abdullah Ensour met with a delegation of the Foreign Affairs Committee of the Chinese People's Political Consultative Conference, and invited China to cooperate in this railway project, which he said would integrate Jordan into the New Silk Road.

Egypt's new tunnels will join up with railway lines along the North African coast. Egypt has the oldest railway system in all of Africa and the Middle East, with a relatively dense network in Cairo and the Delta region, and with rail lines along the full length of the Nile in Egypt and along the northern coast to the Libyan border. In March, the Egyptian Ministry of Transport announced that it has made a priority of the construction of a high-speed north-south railway along the Nile Valley that would link Alexandria with Aswan on the Sudanese border, connecting all five of Egypt's major provinces.

This line could continue south through Sudan and into Ethiopia, Uganda, and Kenya.

Like the New Suez Canal project, it would involve Egypt's Army Corps of Engineers, and would be financed internally through the selling of shares, debt certificates, as well as loans from Egyptian banks and investment by Egyptian business interests.

There is already a link from Ismailia, on the Suez Canal, where a new tunnel is planned, to the Libyan border on the Mediterranean coast. The EIR/Schiller Institute Mediterranean Plan envisions that line continuing as a high-speed line west along the coast through Libya, Tunisia, Algeria, and Morocco, with tunnels linking Tunisia to Italy and Morocco to Spain.

The overthrow and murder of Libyan President Muammar Qaddafi in 2011 put an end to the railway project that Russia and China were building in that country, at the cost of over a billion dollars. This would have been the country's first railroad, and would eventually link with Egypt on the east and Tunisia on the west. Although Russia and Chinese railway engineers have left the country, the beleaguered Libyan government, now being supported by Egypt, has said it wants to restart the project as soon as possible.

In Tunisia, high-speed rail is on the agenda. In February 2012, the Tunisian Transport Ministry hosted a conference of representatives of the national railways of Libya, Tunisia, Algeria, Morocco, and Mauritania to discuss the Trans-Maghreb high-speed line. Each of these nations is extremely serious about this project. Tunisia plans to spend \$5.5 billion over the next decade to develop it, and Algeria, which has a developed rail network, has similar plans.

Morocco is halfway through completing its new high-speed line between Casablanca on the Atlantic and Tangier on the Mediterranean, using French TGV technology. Moreover, Morocco and Spain have completed feasibility studies and have conducted extensive research for building a railway tunnel under the Strait of Gibraltar. If and when completed, it would be the most important

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transcontinental infrastructure project since the Suez Canal.

The EIR/Schiller Institute plan supported a proposal by Egyptian engineer Aiman Rsheed to construct a port at the Egyptian city of Sidi Barrani on the Mediterranean, near the Libyan border, which would serve as a terminus for a rail line that would run south through Sudan, where it would branch, with one line continuing all the way to the land-locked countries of Rwanda, Burundi, and Uganda. The other line would run through land-locked Ethiopia and northern Kenya, terminating at Kismayu on the coast of Somalia. These rail lines would open up almost a third of Africa for rapid development.

Phase III and Beyond: On the Road to the Fusion Economy

All of these ambitious projects, however, do not solve the most fundamental challenge that Egypt, Africa, and Southwest Asia are facing: increasing the production of electricity, not only for industrial development, but also for the desalination of water. Egypt is now experiencing sporadic blackouts because of the acute shortage of electricity. The necessary increase of power can only come from nuclear fission, and ultimately fusion power.

All the countries of North Africa suffer from inadequate water supplies. The northern coast of Africa is dotted with populous cities, yet there is not one nuclear power station that could provide inexpensive, desalinated seawater. The huge city of Alexandria does not even have a conventional desalination plant.

This brings us to Phase III of the Suez Canal Development Corridor, turning the canal zone and the greater Sinai region into a world-class center of industry, and technological and scientific research and development.

Almost all the Arab nations, from the Persian Gulf to the Atlantic coast, have plans for the construction of nuclear power stations. The United Arab Emirates has started construction of the first of four nuclear power stations, with a total capacity of 5,600 megawatts. Saudi Arabia is in advanced planning stages, and Jordan has signed an agreement with Russia's Rosatom to build the country's first two 1,000 MW nuclear reactors.

Upon taking office, President al-Sisi identified building Egypt's first nuclear power station as among his government's top priorities, and during his summit with Russian President Vladimir Putin on Aug. 12, the leaders discussed cooperation on nuclear energy.

An official tender for the nuclear reactor should be released by the end of this year. The reactor site will be at al-Dabaa on the Mediterranean coast, which has been reserved for a reactor since the 1980s. The government has ordered the Army Corps of Engineers to refurbish the facilities that already exist there—administrative buildings, laboratories, storage units, workshops, and water and electrical utilities.

Egypt has a relatively well-developed nuclear research capacity. The Atomic Energy Authority oversees the country's two research reactors, including a 2 MW multipurpose nuclear reactor (MPR) launched in 1961 and a 22 MW MPR built by the Argentine company Investigación Aplicada and activated in 1998. There is also a fuel-manufacturing pilot plant to supply these MTRs, and a hot laboratory and waste management center. Close to a thousand scientists, researchers, and engineers work in these facilities.

In 2011, a joint venture was established between the Egyptian company Orascom Construction Industries and the state-owned Arab Contractors, for the purpose of bidding on nuclear power projects in Egypt and the Middle East.

The Sinai Peninsula is virtually undeveloped, but is rich in natural resources that could feed great industrial enterprises such



A huge Triple-E freighter passes Port Said in the Suez Canal.

as glass manufacturing. The region also boasts large deposits of salt, potassium, limestone, granite, and dolomite.

All of this requires electricity, and plenty of it. The nuclear power station at Dabaa, once built, will not add enough power to drive the economic miracle Egypt is preparing for. Egypt will need several nuclear power plants on the north coast alone, to supply such large population centers as Alexandria with electricity and fresh-water, to relieve the pressure on the limited resources of the Nile.

A "Technology Valley" is planned at Ismailia, near geographic the center of the Suez Canal route, and will be home to one of the campuses of the Suez Canal University. So why not create a "nuplex" alongside the Technology Valley, by building a large nuclear power station in the center of the canal zone, perhaps on the Great Bitter Lake, which would supply cheap electricity for desalination of water and powering the new industries in the entire region?

The idea of a nuclear-centered agro-industrial complex ("nuplex") originated with President Dwight Eisenhower's 1953 Atoms for Peace program. It called for construction of a nuplex in the Sinai-Negev area of the southeastern Mediterranean coast, to be jointly owned and managed by Israel and Egypt.³

Eisenhower proposed anchoring a comprehensive Middle East peace process by building a series of nuclear power stations, including on the north coast of the Sinai, for electricity and desalination of water. These proposals were suppressed as a matter of policy, because of anti-nuclear policies in the United States.

Plentiful and inexpensive power, not "cheap labor," will be the driver for investment in industry in the region. Cheap labor has never driven real industrial development; but access to energy does, along with a qualified and motivated labor force. Within this nuplex could be created great educational and research centers dedicated to nuclear science and engineering, including research into fusion energy, which can draw scientists from throughout the region.

There are many potential partners for such a project, including Russia, China, and South Korea, all of which have their own nuclear technology, as well as ambitious fusion research programs.

To be continued...

Footnotes:

1. See Hussein Askary, "Africa Pass: Afro-Mediterranean Revolutionary Project," EIR, June 8, 2012.
2. Portia Tarumbwa-Strid, "The Transaqua Project: Beginning of an African Rebirth," EIR, June 8, 2012.
3. See, for example, EIR, Dec. 8, 1981.