

CASE STUDY: EGYPT

The African Infrastructure Renaissance Along the Belt & Road—A Case Study

by Hussein Askary

Oct. 6—Overshadowed by the COVID-19 pandemic and its undeniable devastating effects on almost every nation's economic and social well-being, and in contrast to some bizarrely gleeful reports in [Western](#) media about the “collapse” of the Belt and Road Initiative (BRI) due to the pandemic, the locomotive of the BRI continued to speed up. These reports, as usual, were not based on facts but on wishful thinking, and the experts they cite were quickly proven wrong.

According to a [report](#) published by the Chinese Ministry of Commerce, Chi-

na's non-financial direct investments in countries along the Belt and Road stood at \$10.27 billion in the first seven months, up by 28.9% year on year. During this period, Chinese enterprises have signed new contracts worth \$67.18 billion in countries along the BRI.

The failure to assess and forecast Chinese reactions to the financial crisis is due to the economic philosophy that has become dominant in Europe, the U.S. and Japan in recent decades, according to which austerity is the answer in times of financial and economic difficulties. The Chinese philosophy, as witnessed clearly in the post-2008 financial crisis, is to “invest” your way out of the crisis. The U.S. and Europe had a similar philosophy—inspired by the great American President Franklin Roosevelt's New Deal—that successfully pulled the U.S. economy out of the Great Depression, and contributed to building prosperous nations in



Kremlin.ru



Flickr/Paul Kagame

Working together, Abdel Fattah el-Sisi, President of Egypt (left), and President Xi Jinping of China are building Egypt into a modern regional economic power.

Europe and Japan after the destruction wrought on them by World War II. But that philosophy was gradually abandoned in the post-Bretton Woods era starting in 1971.

China and Africa

Chinese President Xi Jinping made it transparently clear in many speeches this year that China's focus in dealing with both the health effects and economic impact of the COVID-19 pandemic will be on Africa. In the period 2015-2018, Africa had received \$60 billion in Chinese investments and loans for infrastructure projects alone. At the 2018 Summit of the Forum for China Africa Cooperation (FOCAC), China pledged \$60 billion more for the 2019-2021 [Action Plan](#). The pandemic has not seriously affected any of these plans. China's assistance to Africa in fighting the pandemic



CC/Ahmad Shahin



Science History Institute



CC/Bigbug21

Three members of President el-Sisi's advisory group, the Council of Egypt's Scientists and Experts, created in 2014. From left to right: Farouk El-Baz, Ahmed Zewail, and Hany Azer.

has been simply an additional input to this process.

For Xi's speeches, see "[Belt and Road Updates: Two major summits in one week!](#)" and "[Health Silk Road Updates](#)," both on the BRIX website.

It is important to remember in this context that China is not dictating to African nations what policies or what projects they should follow. Almost none of the major infrastructure projects being built by China in Africa were originally suggested by China. They are all part of those African nations' or the African Union's plans of development. China is providing the "tools" for implementing these plans. President Xi Jinping identified "three bottlenecks" impeding Africa's development in his speech at the FOCAC summit in Johannesburg, South Africa, in 2015. These are the lack of adequate infrastructure, lack of skilled labor, and shortage of financing. It is these three factors that China's involvement in Africa is [addressing](#).

In the case of Egypt, it is not a major obstacle to find skilled labor. However, the lack of adequate infrastructure and financing have been acute problems.

Egypt Case Study

After decades of economic stagnation, Egypt took a completely new course under current President Abdel Fattah el-Sisi, both politically and economically, to reinforce its political and economic independence. Since 2014, when el-Sisi was elected President in a landslide vote, Egypt has kept all the major global powers at equal distance, remaining friendly to all. It did not get itself entangled in geopolitical games between East and

West, and in a period of incredible destruction of nation-states through regime change and wars by proxy in its neighborhood in Libya, Syria, Iraq, and Yemen, it stayed at a safe distance. For example, although it is closely allied to Saudi Arabia and the United Arab Emirates, two of its most important financial backers, Egypt did not send a single soldier to back those two countries in their destructive war in Yemen.

In military terms, el-Sisi managed to keep an incredible balance between the [United States](#) and [Russia](#), managing to continue to receive equipment and even operational assistance in the war on terrorists in Sinai from both simultaneously.

The Egyptian government has been sharply focused on rebuilding Egypt into a modern regional economic power through industrialization. In the past six years, Egypt has been transformed into a bustling workshop, with gigantic projects for infrastructure, industry, agriculture and housing popping up in different parts of the country. Although many of them are connected to the BRI, these plans are Egypt's own ideas conceived by Egyptian scientists and experts of global renown. Many of them are members of the President's advisory group called the [Council](#) of Egypt's Scientists and Experts.

This team, which President el-Sisi created in 2014, includes such scientists as Nobel Prize winner in Chemistry Dr. [Ahmed Zewail](#) (who died in August 2016), and Egyptian-American Dr. [Farouk El-Baz](#), geologist, space scientist and director of the Remote Sensing Center at Boston University. Another member of the

team is Egyptian-German Engineer Hani Azer, who is in charge of Egypt's mega-projects. He is also known as the chief engineer of the new Berlin Railway Station, and the first Project Manager of the massive Stuttgart 21 railway station. He was awarded the German Federal Cross of Merit by Chancellor Angela Merkel in 2019.

The Egypt-China High-Speed Railway Project

In early September 2020, some specialized railway websites cited [reports](#) in the Egyptian media that a consortium comprising the state-owned enterprise China Civil Engineering Construction Corporation ([CCECC](#)) and Egyptian companies Samcrete and the Arab Organization for Industrialization had won a \$9 billion contract to build a 543 km high-speed railway in Egypt. The reports referenced the *Egypt Independent* daily, which cited “senior sources.” This author has verified the information from sources in the Egyptian Ministry of Transportation.

This high-speed railway project is the second in Africa and the longer of the two, following the completion of the Moroccan 350 km high-speed [railway](#) from Tangier to Casablanca, a Moroccan-French joint venture.

Accommodating train speeds of 250 km/h, the line will link the Mediterranean coast at El-Alamein to the Red Sea at Ain Sokhna, cutting the journey between the two cities to three hours. Interestingly, not only will Egyptian construction companies, engineers and workers be working shoulder to shoulder with their Chinese colleagues, but the project also implies technology transfer and industrial investment in Egypt. According to the Transportation Ministry, the trains will be manufactured in east Port Said, with Chinese technology transferred to Egypt. Furthermore, as in the case with the major Suez Canal tunnels, most of the building materials will likely be produced inside Egypt. This will give Egyptian companies a very important “foot in the

door” in the international railway construction sector, which will become significant for the African and West Asian markets.

The railway will pass through and connect some of the most important new industrial zones and urban centers that are the flagships of the new Egyptian strategy. For example, it will connect the Industrial Zone at Ain Al-Sokhna Port to the New Administrative Capital and cross the Nile River at the old capital of Cairo to Sixth of October City. It will stretch further northwest to the Burj Al-Arab industrial and urban center (on the Mediterranean south of Alexandria) and terminate in El-Alamein, which has emerged as a major modern city on the



A \$9 billion 543 km high-speed railway that will link El-Alamein on the Mediterranean with Ain Sokhna on the Red Sea.

shores of the Mediterranean and a new tourist attraction with dozens of hotels and resorts—practically a new city. West of El-Alamein a new city is emerging, El-Dabaa, home to Africa's largest nuclear power plant and technology complex, to be built soon in cooperation with Russia (see below).

In the beginning of the bidding process in 2018, nine international consortia and global corporations submitted bids. Only two were short-listed for the final decision. The second one comprised the Chinese AVIC, CREC from China, Siemens of Germany, France Railways, Orascom and Arab Contractors. While the government first announced during 2017-2018 that the project would be a commercial project financed by private financial institutions, it was later decided to make it a state-owned project. However, a foreign loan was

required. Therefore, the winning company or consortium was required to provide 85% of the financing through such a loan. A Chinese bank or a group of banks (not yet identified) will provide the loan.

The government has also made it a condition that the project be completed in record speed, 30 months. This Herculean challenge was tackled by the chosen Chinese-Egyptian consortium by dividing the construction work into three sections to be built simultaneously. One section

is from Ain Al-Sokhna Port to the Administrative Capital, the second from the Administrative Capital to the Sixth of October city south of Cairo, and the third from Cairo to El-Alamein.

This is an unprecedented project in the history of Egypt, connecting the east of the country to the west, rather than following the traditional centers along the Nile (south-north). The longitudinal expansion of the 100 million-strong population and its centers of economic activity, as will be discussed further below, is completely intertwined with the development projects defined by the current government.

Egypt's Mega-Projects

The term “mega-project” has become a household term in Egypt since President el-Sisi assumed power. As mentioned above, the Council of Egypt’s Scientists and Experts created by el-Sisi defined a number of mega-projects in transport, power, agriculture, urban development and other economic fields, to be carried out *simultaneously*. This was almost unthinkable in a country which was hit by multiple economic, financial and security crises when the President announced this initiative in 2013 at an international conference in Sharm El-Sheikh. The resilience and stubbornness exhibited by the leadership and the people of Egypt made this impossible mission possible. But, without support from regional and international friends, this challenge would have been too big to deal with alone. President el-Sisi’s masterful diplomacy made Egypt a friend of both East and West, and an indispensable regional



BalkanEU

Built in just one year, the New Suez Canal, shown at completion in August 2015, allows constant two-way traffic along the canal.

power that all the major powers need to befriend and reckon with.

We review here some of the mega-projects that have been launched or planned.

1. The New Suez Canal and Industrial Zones

On August 6, 2015, the New Suez Canal was officially inaugurated in a ceremony attended by numerous world leaders. This occasion celebrated the successful completion of a full bypass system for constant two-way traffic along the canal, a system that was built in *one year* and financed entirely by domestic resources. Construction began on August 4, 2014. The project was originally estimated to take four years, but President el-Sisi insisted it be completed in one year only, a seemingly impossible goal that was indeed achieved.

The dry excavation and dredging each moved approximately 250 million cubic meters of sand and rocks, one hundred times the volume of the Great Pyramid of Giza. Construction was a 24/7 process, using, at its peak, 75% of the world’s dredgers.

Financing of the New Canal was also a major feat by the Egyptians; no foreign financing was permitted. The \$8 billion (EGP 64 billion) cost of the canal was raised in less than two weeks, through sales of Suez Canal Authority investment certificates to Egyptian citizens and financial institutions. The citizens were fully refunded with a 14% interest rate when the certificates reached the maturity date in September 2019.

The Suez Canal was considered a major source of income for Egypt, generated by the passage of nearly



Ain Al-Sokhna Port, on the Egyptian side of the Gulf of Suez, is Egypt's first deep-sea, multi-purpose hub port.

20,000 ships per year, generating about \$5 billion in annual transit fees. The second (New) Suez Canal doubles the potential daily ship traffic, from approximately 50 to 100 vessels, shortens the southbound transit time by 7 hours, and reduces by approximately 7 hours the time vessels spend waiting to use the Canal.

However, in times of global economic crises the transit income falls due to reduced shipping activity between Asia and Europe. Another factor in reduced transit through the Suez Canal, is a drop in oil prices and Europe-bound ships can afford enough fuel to circle Africa at the Cape of Good Hope in South Africa, as is happening now. Therefore, Egypt can not solely rely on transit revenues from the canal, but must utilize it for creating added value.

Not simply an isolated project, the Canal is part of a broader regional development plan, including a 200 square kilometer industrial zone at Ain Sokhna, a new 500,000-resident city and Technology Valley on the eastern side of the canal from Ismailia, providing thousands of jobs. The [connection](#) between the western bank of the canal and the east (Sinai) has been made possible by the construction of six tunnels underneath the Canal through cooperation between Egyptian construction companies and the German tunneling equipment producer Herrenknecht. This is a “mega-project” on its own, employing thousands of Egyptian workers and engineers. The general manager of the project is Hani Azer. These tunnels reduce the

transit time between the two sides, conducted previously by ferries, from hours to 10 minutes. This will facilitate the development of new cities and industrial centers in Sinai.

Another project associated with the New Suez Canal is the Suez Canal Container Terminal (SCCT) at East Port Said, one of the largest container terminals and transshipment centers between the Indian Ocean and the Mediterranean, which is now being expanded. The SCCT is located at the mouth of the Suez

Canal on the Mediterranean, and at the confluence of the continents of Asia and Africa. When Phase II of the terminal is completed, it will be able to handle 5.1 million TEU/year, as many as the China-operated Piraeus Port in Greece, the largest such terminal in the Mediterranean. Other ports like Ain Al-Sokhna, West Port-Said Port, Al-Adabiya Port, Al-Arish Port and the Al-Tor Port (Sinai-Gulf of Suez) are being vastly expanded to accommodate the increased trade along the Maritime Silk Road and also the massive development projects inside Egypt.

A Development Corridor

Because of its proximity to the Canal and to other transportation, power, and desalination infrastructure, the Suez Canal corridor is the site of planned investment of EGP 50 billion for industrial, technical, and even agricultural development. The [Suez Canal Zone \(SCZ\)](#) is an elaborate logistics and industrial development scheme incorporating port and industrial zones connected by modern infrastructure.

China was one of the first countries to capitalize on the opportunity provided by the SCZ, due to its direct connection to the Belt and Road and closeness to European markets. Chinese industrial developer Tianjin Economic-Technological Development Area ([TEDA](#)) is currently developing a total area of 7.23 square km in the SCZ in Ain Sokhna. It has attracted many Chinese companies, the largest of them China's giant fiberglass



Presidential Press and Information Office

Joe Kaeser, CEO of Siemens AG.

Siemens Energy

Design of the electrical substation to power Alexandria's Bashaer El Khair City.

manufacturer Jushi, which helped Egypt become one of the largest fiberglass producers and exporters in the world over the past years. The total investments of TEDA in Egypt so far have reached \$5 billion.

Russia had also announced its intention to build a [Russian Industrial Zone](#) in Port Said, with 20 major Russian companies relocating their production there in order to expand their sales to Middle East and African countries. The construction of this zone was scheduled originally to start in late 2020, but the COVID-19 pandemic seems to have put some obstacles in the way of its launching.

The very large and relatively well-educated Egyptian young generations are a great asset for industrial development. Unemployment among Egyptian youths has been one of the biggest economic and social problems in Egypt, and one of the key causes of the rising of the youth in the revolution that overthrew the government of President Hosni Mubarak in 2011. The current Egyptian government is acutely aware of this problem. [Youth unemployment](#) in Egypt peaked in 2011, reaching 34.5%, but has been declining slowly since then, although not in any dramatic manner.

Bridging the Energy Gap and Going Nuclear

Shortage of electricity has been one of the biggest impediments to development in the past three decades. By 2011, 5,000 companies, many in the crucial textile export sector, were shut down for lack of power. The new Egyptian government made bridging the energy gap one of its priorities.

Three major developments stand out here:

Siemens Power Plants. Germany has proven to be a reliable partner for Egypt in its development strategy, providing state-of-the-art technologies and even supporting its financing through export credits. In 2015, with the support of the German government and Chancellor Angela Merkel personally, Siemens signed its largest single overseas contract with the Egyptian government.

The project involved the building of three natural-gas combined-cycle plants in three locations in Egypt—at Beni Suef, Burullus and New Capital. According to Siemens, each of these plants “was set to be one of the world’s largest gas-fired combined-cycle power plants.” The project was carried out in record time and completed in 2018 in collaboration with Egyptian contractors El Sewedy Electric and Orascom Construction. Twenty-four thousand engineers and workers were involved in the project, the majority of whom were Egyptians. Six hundred Egyptian engineers were enrolled in special training courses in Germany and Egypt to manage and run the plants after construction is completed. In addition, an occupational training center was established in cooperation with the German Ministry of Economic Cooperation and Development to provide technical education for 5,500 Egyptian technicians and engineers over a period of four years.

Financing of the project was made possible through German government export credits and with support from Italy. The official [white paper](#) provided by Siemens states:

Siemens, together with Orascom Construction and Elsewedy Electric, facilitated a very competitive loan agreement backed up by the German government, represented by the German export credit agency Euler Hermes and Italian export credit agency SACE.

The [project](#), worth €7 billion, was financed partially through Deutsche Bank raising €3.5 billion from international banks.

In March 2017, President el-Sisi, Chancellor Merkel and Siemens CEO Joe Kaeser oversaw the inauguration of the first phase of the project. According to the Siemens [website](#), Kaeser said:

The record-breaking completion of our mega-project in Egypt will not only transform the power landscape in Egypt, but will also serve as a blueprint for building up power infrastructure in the Middle East and all over the world.

In general, the typical, average time it takes to build one single combined-cycle power plant is 30 months. *All three power plants in Egypt took 27 months to complete simultaneously.* It is a “turnkey” project, which means that the Egyptian power utilities will take over the plants upon their completion.

Natural Gas Discovery. Good luck comes with hard work! Until 2014, Egypt was gradually becoming dependent on Arab Gulf countries and Israel for import of fuels for its power plants and other energy needs. As Egypt started its relentless pursuit to launch its mega-development programs, a happy surprise hit the country. In September 2015, the Italian company Eni announced the discovery of the offshore Zohr gas field, which is estimated to be the largest in the Mediterranean. The field has been estimated to contain around 30 trillion cubic feet of total gas. “This historic discovery will be able to transform the energy scenario of Egypt,” said Eni’s chief executive, Claudio Descalzi, who met the Egyptian president, Abdel

Fatah el-Sisi personally to announce the findings.

Following this discovery, Egypt increased its scope of agreements with Eni, leading to further discoveries in 2018 of 43 crude oil and 18 gas deposits. Eni increased its investments in the Egyptian energy sector to \$12 billion in 2018. This makes Egypt now self-sufficient in energy sources and allows for the export of a portion of its energy to generate the hard currency necessary to cover the cost of foreign investments. This will also be helpful in backing its credit worthiness to generate more credit for future projects.

Petroleum Refineries. In another landmark achievement, on September 27, 2020, President el-Sisi attended the inauguration of the Mostorod Refinery, a



Siemens Energy

Schematic of the ETHYDCO petrochemical complex in Alexandria.

\$4.4 billion investment representing the single largest private investment in Egypt and Africa, and providing 20% of Egypt’s needs for diesel, gasoline and jet fuel. The [project](#) was undertaken by the Egyptian Qalaa (Citadel) Holdings company in cooperation with foreign investors and with the technical cooperation of Japan’s Mitsui. The refinery has a production capacity of 145,000 barrels per day. Although envisaged in 2007, this project was impeded by international and local financial, economic, and political crises until recently.

The significance of this and a series of similar projects to be completed by 2023, is that Egypt will become self-sufficient in fuels (gasoline, diesel, and jet fuel). In previous years, Egypt’s reliance on imports (up to 50%) for fulfilling its needs, drained the state budget. Egypt spent nearly \$4.5 billion every

year from 2009 to import refined petroleum products. Using its own petroleum raw products to produce these refined products domestically, Egypt can now save and invest huge sums in its own national development programs.

Going Nuclear. This August 20, the Egyptian Nuclear Power Plant Authority (NPPA) confirmed that a permit is expected to be issued for Egypt’s first nuclear power plant, and that construction would then start in the second half of 2021.

The location of the plant will be in Al-Dabaa (Mersa Matrouh Governorate), on the Mediterranean Sea, west of Alexandria. The plant will ultimately have four reactor units, completely built by Russia’s Rosatom. Each reactor will be a third-generation pressurized water reactor, each with an installed capacity of 1.2 gigawatts. The first reactor is expected online in 2026, and commissioning of the other three by 2028. When complete, the four-reactor complex will add 4.8 GW (about 15%) to Egypt’s grid.

Rosatom has been training and “upskilling” technical personnel since 2014, and in 2015 it approved the financing plan, in which the Russian contractor will provide a \$25 billion loan, expected to cover 85% of the construction. The loan reportedly has a 22-year pay-back period, with a 3% interest rate. The project is expected to generate 50,000 job opportunities in the first years of the construction. Besides, a massive development process will be launched, transforming this remote coastal city into a hub for industrial, technical and tourism activity.

New Generation of African Nuclear Engineers

A globally unique project was started in Egypt in 2018 through the establishment in Egypt of a first-



Two views of Egypt’s New Administrative Capital, 40 km southeast of Cairo, under construction, as of September 5, 2020.

of-its-kind nuclear technology high school, dedicated to producing hundreds of nuclear engineers and technicians in the next five years, to run its first nuclear

power complex in Al-Dabaa. The Advanced School for Nuclear Power Technology, which opened in autumn 2018, is located in Al-Dabaa, in the vicinity of the soon-to-be-built Al-Dabaa Nuclear Power Plant.

The first class at the school began with 75 students. The education is for five years, with the curriculum including all aspects of building, operating and maintaining civilian nuclear power plants. The students will also receive education in chemistry and physics, besides mechanics, electronics, and computer systems. After graduation, the students will be qualified for work in different aspects of the maintenance and operation of the plant, assisting the engineers trained in Russia for the purpose of operating the reactors. Naturally, the youngsters will also qualify for higher education in the same field.



cc/SteffHeffl

The Mubarak Pumping Station, centerpiece of the Toshka Project to create a second Nile Valley, pumps water from Lake Nasser to irrigate over 500,000 acres of land, November 4, 2010.

3. The New Administrative Capital

The New Administrative Capital will be located 40 km southeast of the current capital Cairo, on the road from Cairo to Ain Al-Sokhna. It is intended to house all the key government institutions and financial centers. According to Mostafa Madbouli, Egypt's Minister of Housing, Utilities and Urban Development, the extent of the city will be 714 square kilometers. It will be founded on a state-of-the-art underground infrastructure system for power, water, and sewage.

Work on laying the foundations and building the infrastructure began in May 2016. The city, which will be home to 6.5 million inhabitants, is to be connected to Cairo and Suez by the high-speed railway as discussed above, in addition to a monorail system connecting it to the new urban centers being built in the north-eastern part of Cairo. It will be closer than Cairo to the growth region in the New Suez Canal Industrial Zone. A military airstrip is being transformed into a modern airport north-east of the capital. This is not only the largest city-building project in the world today outside China, but it is also unique, because it is built from the ground up in a previously uninhabited area.

Work on the New Administrative Capital was officially launched by President Abdel Fattah el-Sisi on October 11, 2017. On that date, an agreement was signed for construction of the central business district, a key component of the city, hosting some of the highest towers in Africa, such as the [Iconic Tower](#). The contract was awarded to the China State Construction Engineering Corporation ([CSCEC](#)).

China's planned investment in the new capital is expected to reach \$11 billion. While Chinese companies have an important role, the majority of the construction works in the rest of the city are being conducted by Egyptian companies, both governmental and private, such as Almokawiloon Al-Arab (Arab Contractors).

This new city will relieve strain on the historical capital, Cairo, whose population has grown to 18 mil-

lion, and is currently projected to reach 40 million by 2050. There are a dozen new cities that are being constructed outside the greater Cairo region to draw urban development away from the city, which has become one of the most congested cities in the world. The aim of the government is to restore Cairo as a historical and cultural capital of the nation.

See a satellite overview of the location and different parts of the New Administrative Capital in this [video](#).

4. Reclaiming the Desert

Just a few weeks following the announcement of the New Suez Canal project by Egyptian President Abdel Fattah el-Sisi, Prime Minister Ibrahim Mahlab announced, on Aug. 30, 2014, that the Toshka Project was to be revitalized to become a national development project. Seventeen years after its launch under former President Hosni Mubarak, and several years after its near abandonment by former governments, this key project for the reclamation of Egypt's Western Desert, the largest such project in Africa, may become operational.

The proposal entails transferring water from Lake Nasser (the lake created by the Aswan Dam) to the Western Desert to reclaim and cultivate 1.5 million feddans, and to build new urban and agro-industrial centers (one feddan is equal to 0.420 hectares). 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 to the Toshka Depression. At the time of its abandonment in 2008, the project had cost \$1 billion. Speaking during a tour of the Toshka region, Prime Minister Mahlab said that a thorough study will be conducted to reassess the project, which proposes 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.

New Valley—Over the Nubian Aquifer

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 Toshka and continuing north through the oases of the New Valley Province—Al-Dakhla, Al-Kharja, Farafra—northeast to the Bahriya Oases and ending in the Siwa Oasis in the northwest of the country.

The Development Corridor is defined by this chain of oases and the feature they have in common is the world's largest groundwater aquifer, the Nubian Sandstone Aquifer System, beneath them. 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 Dr. Farouk El-Baz, 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, these areas are rich in minerals and metal ores such as phosphate, iron, and cobalt, which could become a basis for expanded industrial activities, in addition to agriculture.

The Egyptian "Development Corridor," also called the New Valley Project, was designed by Dr. El-Baz, the Egyptian-American remote-sensing and space scientist, who is the current Scientific Advisor to President el-Sisi. The corridor includes the following:

- (a) A 1,200 km super-highway to be built using the highest international standards, from west of Alexandria to the southern border of Egypt
- (b) Twelve east-west branches from the super-highway, with a total length of approximately 800 km, to connect it to high-density population centers along the way
- (c) A railroad for fast transport parallel to the super-highway
- (d) A water pipeline/canal from the Toshka Canal to supply freshwater
- (e) An electricity line to supply energy during the



CC/Réminh

The Sheikh Zayed Canal of the New Valley Project in the Western Desert.

early phases of development.

This Egyptian corridor can easily be extended southward to Sudan, and all the way to the Equatorial Lakes. The navigational potential of the river can be maximized as part of this corridor.

Egypt's major reliance on importing basic foodstuffs, such as grains, as in the case of fuels, was a major source of the country's trade deficit. Besides, what land was available was used to make Egypt a food-exporting nation (mostly cash crops such as vegetables and fruits) to earn hard currency to pay its debts. This made the Toshka project under the previous government of President Hosni Mubarak, a cash cow controlled by wealthy princes from the Gulf countries.

The new policy of President el-Sisi is a dramatic shift from that of Mubarak, who had 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. Nasser's policies had made Egypt nearly self-sufficient in the 1970s. From 1996 to 2011, exports of cash crops rose from \$350.6 million to \$4.086 billion! But Egypt ceased to produce its own basic food, and became the world's largest importer of grains. 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.

The new mega-project in the desert is aimed at bridging that gap and reorganizing the population den-

sity from around the Nile River and its Delta to the rest of the land area of the country. Until now, 90% of Egypt's population has been settled in only 7% of the total land area of the country. Now, combined with the other new mega-projects of infrastructure and industry, Egypt will finally utilize the totality of its lands and other resources. This will put Egypt on the right path, the path of the new paradigm of economic development and prosperity exemplified by the Belt and Road Initiative and China's economic success in moving from being a poor society into a global industrial power.

Conclusion

Some critics might say that what the author is painting here is a rosy picture, which hides the fact that there is widespread poverty, social problems, and unemployment in Egypt today. These problems have been augmented by the pandemic.

There is no denial that poverty is still a major problem in Egypt. In reality, [poverty levels](#) rose between 2015 and 2017 according to the World Bank, from 1.6% to 3.8% of the population below the poverty line (\$1.90/day income). But that was largely due to the floating of the currency in 2016, which devalued the Egyptian pound by almost 60%. Combined with that, the government lifted its subsidies for several essential food and fuel items. But these measures were demanded by the International Monetary Fund to release a \$12 billion loan to Egypt. These "reforms" generated enormous hardships for the poorest sections of society.

As the case of China has proven, alleviating poverty cannot be done through asking the people above the poverty line to donate \$1.90 a day to the poorest, but through industrialization and large-scale investments in infrastructure. China still has millions of people under the poverty line. But the government has put measures in place to lift those last millions out of poverty this year, 2020, to let them join the 800 million who have already made it out of poverty in the past 30 years.

Egypt's current investments in infrastructure and industrialization will secure its path out of poverty and into a gradually more prosperous society. GDP growth rates in the past few years have continued to climb above 5%. One interesting aspect of the investments in the [mega-projects](#) is that they helped reduce the impact of the COVID-19 pandemic on the economy by continuing the construction works, while many sectors,

like retail, tourism and aviation, were terribly hit.

Egypt has been endowed with a unique geographical position, a large and relatively well-educated population, and a vast land with a great river and other water resources. It can harness all these advantages to move into the 21st century as a relatively great economic power.

The 'Washington Swamp,' Enraged by Egypt's Progress, Promotes Muslim Brotherhood

by Hussein Askary

On Sept. 9, the U.S. House of Representatives' Subcommittee for the Middle East, North Africa and International Terrorism (House Foreign Affairs Committee), held a hearing on human rights violations in Egypt, in order to urge the cutting of military aid to that nation. The hearing was in reaction to the extraordinary economic progress achieved by Egypt under current President Abdel-Fattah el-Sisi. The testimony from Washington think-tankers attacked Egypt specifically for the economic, diplomatic, and military achievements it is making.

The "Washington swamp" is clearly enraged by Egypt's development, and also by the fact that Egypt is working with all the great powers—both global and regional, and is avoiding getting entangled in geopolitical games. El-Sisi is focused on the development of Egypt by taking advantage of its geographical, human and natural resources, through mega-projects as the backbone of its improvements, in cooperation with projects in accord with China's Belt and Road Initiative, and in collaboration with Russia, Germany, and Italy. All the while, el-Sisi has kept good relations with the Trump Administration, and repaired some of the damage caused by the Obama Administration.

Exemplary of the swamp is the witness Tamara Cofman Wittes of the Brookings Institution, who worked in the Hillary Clinton State Department as Deputy Undersecretary of State for Middle East Affairs during the period of the Obama Administration's criminal wars in Libya and Syria. During Wittes's service in that position, the Muslim Brotherhood became the dar-