The Nile Basin: Egypt's Role in Africa's Development

by Hussein Askary and Dean Andromidas, Part III

> [Egyptian priest:] "Ah, Solon, Solon, you Greeks are ever children. There is not an old man among you." On hearing this Solon said, "What? What do you mean?" "You are young," the old priest replied, "young in soul, every one of you. Your souls are devoid of beliefs about antiquity handed down by ancient tradition. Your souls lack any learning made hoary by time. The reason for that is this: There have been, and there will continue to be, numerous disasters that have destroyed human life in many kinds of ways. The most serious of these involve fire and water. . . .
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> "When this happens, all those people who live in mountains or in places that are high and dry are much more likely to perish than the ones who live next to rivers or by the sea. Our Nile, always our savior, is released and at such times, too, saves us from disaster. On the other hand, whenever the gods send floods of water upon the Earth to purge it, the herdsmen and shepherds in the mountains preserve their lives, while those who live in cities, in your region, are swept by the rivers into the sea. But here, in this place, water does not flow from on high onto our fields, either at such a time or any other. On the contrary, its nature is to always rise up from below. This, then explains the fact that antiquities preserved here are said to be the most ancient."
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> *—Plato, "Timaeus" (translated by Donald J. Zeyl)*

There is a reason why Egyptians are alarmed by any mention of dams or other water infrastructure from the source of the Nile at the Equatorial Lakes region and along its path. This cradle of ancient civilizations has always owed its existence to the flow of the water in the Nile River, and will continue so. As referenced in Part II of this series (*EIR,* Sept. 12), Egyptians were alarmed by Ethiopia's decision to build the Grand Ethiopian Renais-

sance Dam (GERD) on the Blue Nile, the largest source and tributary of the Nile River.

Egypt is almost completely reliant on the water of the Nile, which it shares with seven other African nations (**Figure 1**), 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 received the right to 85% of the annual flow of the Nile, where the White Nile and Blue Nile converge in Khartoum, Sudan, with Sudan getting 18.5 billion cubic meters, and Egypt, 55.5 billion. But this figure is misleading, as almost eight times this amount of water evaporates, or runs off along the way.

The agreement has become a contested issue, as the other riparian nations further upstream want to sign a new agreement allowing them to have more equal rights to the water of the Nile. But the real issue is not "equal share" of the water, but the right to develop the water resources so that each nation can meet its needs and future development requirements.

The 1959 agreement was signed after Sudan and Egypt became free from British colonialism. However, it has its precedence in a British imperial agreement signed by Anglo-Egyptian Sudan with the British-controlled government in Cairo in 1929. That agreement stipulated that not only do Egypt and Sudan utilize 48 and 4 billion m^3, respectively, of the Nile flow per year, but that Egypt reserves the right to monitor the Nile flow in the upstream countries, and to "veto any construction projects that would affect her interests adversely"!

In 1999, the Nile Basin Initiative (NBI) was adopted by all the riparian nations,[1] 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, lack of development and abundance of political conflicts have hampered the Initiative.

In 2010, spearheaded by Ethiopia, which has been encountering massive and unfounded international pressure due to its attempt to develop its hydropower projects, four of the eight Nile Basin states (Ethiopia, Rwanda, Tanzania, and Uganda) signed a new treaty on the equitable sharing of the Nile waters, despite strong opposition from Egypt and Sudan. "This agreement benefits all of us and harms none of us," said Ethiopia's

FIGURE 1
Africa

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FIGURE 2
The 10 Nations of the Nile Basin Initiative

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1. The Nile Basin Initiative is a political agreement of 10 nations: Tanzania, Uganda, Rwanda, Burundi, D.R. Congo, Kenya, Ethiopia, South Sudan, Sudan, and Egypt. The physical Nile Basin, or catchment area, includes Eritrea and the D.R. Congo. However, they are not members of the NBI. The eight nations that could have impact on the Nile water if they develop their infrastructure are: Tanzania, Rwanda, Burundi, Uganda, South Sudan, Sudan, Ethiopia, and Egypt.

Water Resources Minister Asfaw Dingamo. "I strongly believe all Nile Basin countries will sign the agreement." Burundi and the Democratic Republic of Congo were not represented at the meeting, while Kenya issued a support statement.

For Africa in general, and the nations of the Nile Basin in particular, to realize their aspirations for peace and development, and to cope with underdevelopment, wars generated by poverty, lack of education, and fights over allegedly "limited resources," for the benefit of Anglo-American and other foreign interests, human society's relationship to Nature in this region has to change. No longer should civilization be subject to the whims of the "gods" and of what are called Nature's arbitrary powers. Humankind is the only creative species on the planet, and is endowed with certain capabilities to master nature's forces for its own legitimate benefit.

In addition, with the advent of a new, just world economic order, initiated by the emerging BRICS (Brazil, Russia, India, China, and South Africa) New Development Bank, and the end of the colonial era of racist British and other trans-Atlantic policies against Africa, the nations have a genuine opportunity to rise above the ashes of decades of civil wars and underdevelopment.

FIGURE 3
White and Blue Niles Converge at Khartoum

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From Linear to Geometrical Development

In almost all academic papers and reports by international organizations, including the UN, water is treated as a closed system, with a finite amount of water and limited potential for development. The linear measurements of the water and land resources exclude creative, noetic human intervention, in the form of technology to transform these resources and multiply their effect. On the contrary, humans, whose growth in numbers and needs is not linear but geometrical, are considered a burden on the natural resources that are growing arithmetically, to cite the British Empire's genocide theorist Thomas Malthus. This is reflected, often subconsciously, in many "scientific" papers presented in conferences concerning water issues in the world, to which this author has been a witness.[2]

The total population of the Nile Basin nations and East Africa has quadrupled since the 1960s, from 100 million to an estimated 400 million people. This fact is considered a catastrophe by international environmental and financial institutions. But for cognitive humans, this should be considered a great source of wealth.

The linear facts:

According to the standard information, such as from the United Nations Food and Agriculture Organization (FAO), the Nile River, with an estimated length of over 6,800 km, is the longest river flowing south to north, traversing over 35° of latitude. It is fed by two main river systems: the White Nile, with its sources on the Equatorial Lake Plateau (Burundi, Rwanda, Tanzania, and Uganda—sometimes, Kenya and the Democratic Republic of Congo are also included); and the Blue Nile, with its source in the Ethiopian highlands and Lake Tana 2,100, meters above sea level.

The sources of the White and Blue Nile are located in humid regions, with rainfall varying between 1,200 and 2,600 mm/year, a relatively high level of precipitation. However, the annual average for the whole Nile Basin is 650 mm/year. That is due to the inclusion of the arid region that starts in Sudan, which was the largest country in Africa before the separation of South Sudan in the 2011 referendum. Sudan can be divided into three rainfall zones: the extreme south, where rainfall ranges from 1,200 to 1,500 mm/year; the fertile clay-plains where 400 to 800 mm of rain falls annually; and the desert in the north, where rainfall averages only 20 mm per year. Further north, in Egypt, precipitation falls to

2. See Hussein Askary, "World Water Week: Two Opposing Worlds Meet: Development or Death," *EIR*, Sept. 14, 2012.

less than 20 mm per year, or as the Egyptian priest told Solon, the water comes from down below and never from above.

The total area of the Nile Basin or catchment area of the Nile is 3.2 million square kilometers, representing 10.3% of the area of the continent. As mentioned above, most of that rainfall occurs in the Equatorial Lakes region and in South Sudan, in addition to the Ethiopian highlands. The total annual precipitation in the whole basin can be estimated to be 800-1,000 billion m^3. Of that, almost 70% is lost to evapotranspiration. The combined share of Egypt and Sudan of that is less than 10%!

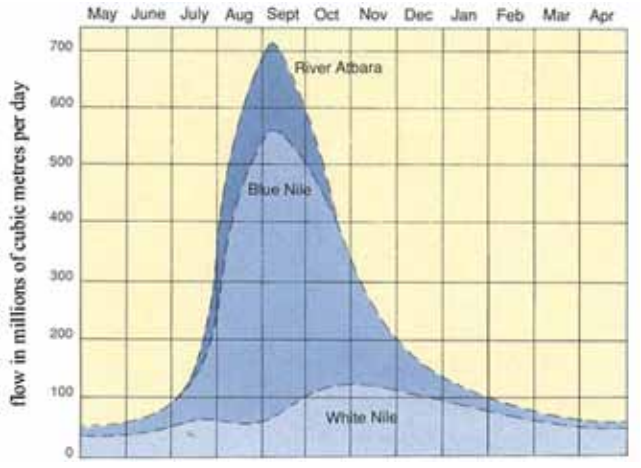
What is also not represented in the linear facts is that, unlike the almost even flow in the White Nile that emerges from the tropical Equatorial Lakes region, the rainfall and level of water in the Blue Nile and other tributaries, like the Atbara, that originate in the Ethiopian highlands, vary dramatically from the rainy season (July-September) to the dry season (November-June). The increased flow in the Blue Nile in the rainy season usually causes catastrophic flooding in Sudan, and increased siltation in the Sudanese water reservoirs behind dams such as the Roseires and Khashm El-Girba. What this implies is the need for considerable regulation of the flow of the Blue Nile to reduce the risks of the fluctuation and to achieve the full utilization of the water, both for its own sake and for generation of hydropower.

Construction of dams on the Blue Nile and Atbara would augment the quantity of water available for Egypt eventually, because of a loss of only 3% by evaporation in this region with its moderate weather, compared with a loss of almost 16% in the Aswan Dam reservoir in Egypt. Egypt, however, would no longer be the beneficiary of additional water in years of high flood, which would then be stored and regulated in the Blue Nile reservoirs, such as the GERD under construction in Ethiopia now, instead of at Aswan.

Ironically, the lack of water infrastructure in this water-rich region exposes it to severe water shortages, due to the variability in seasonal rainfall. The capability of storing water from times of plenty for use in times of scarcity is lost, due to lack of infrastructure. Artificial storage of water in Ethiopia has been, until recently, 47 m^3 per capita, Kenya 114 m^3, and Tanzania 142 m^3, as compared to 6,150 m^3 per capita in North America or 4,100 in Australia (source: The Nile Basin Initiative).

Once again, it is not the availability of a "natural resource" which is the issue, but society's optimizing of its use, through science and technology, that is the key.

FIGURE 4
Water Flow from the Blue Nile and River Atbara



www.mbarron.net/Nile/

These technologies have been available for more than a century in the industrialized world; but Africa has been denied their benefits. Environmental organizations, NGOs, and financial institutions such as the World Bank and the IMF have been used to stop such development in Africa in recent times, the same way colonial armies were used in the 19th and 20th centuries.

Lost to Evaporation

Another non-linear way of looking at the availability of water for the downstream nations such as Egypt and Sudan is the ability to reduce evaporation of the water of the White Nile. A great part of the water originating in the Equatorial Lakes Region evaporates before reaching northern Sudan. While evaporation and transpiration (through vegetation) are a natural way to balance the water cycle in such tropical locations as the misnamed Lake Victoria and Lake Albert (Lake Mobutu Sese Seko) in Uganda, evaporation from swamps and wetlands can be considered a net loss of water and, actually, arable land.

The Kagera flows into Lake Victoria, from which Nile waters then flow on to Lake Kyoga, then Lake Albert, and northward across the Uganda-Sudan border. At the town of Bor in South Sudan, the land gradient changes, and the great swamp, the Sudd, begins. The extent of the Sudd varies greatly with the volume of water received. During the great rains of 1961-64 over the Equatorial Lake district, the Sudd reached 29,800 km^2, which is close to the size of Belgium.

At other times, the Sudd has averaged 16,000 kilo-

FIGURE 5
The Sudd Swamp in South Sudan
(Satellite photo)

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meters, still quite vast. Through the Sudd, the Nile flow makes its way through various currents. The swamp is characterized by floating or jammed up "islands," called *sudd* in Arabic, of marsh vegetation, broken off from their moorings, and in various states of decomposition. There are vast chunks of *sudd*, some up to 30 km long. In the sluggish waters there are many varieties of malaria mosquitoes and waterborne parasites. The Sudd is almost impassable overland or by river craft. A huge volume of Nile flow is lost to evaporation in the Sudd. The mean annual loss from evaporation from 1905 to 1980 is estimated to be 16.9 billion m^3, and can reach 20 billion m^3, which is nearly a third of the annual volume of the Nile at Aswan.

Another example is the swamps in Uganda, a country with numerous lakes and wetlands, and with internal renewable water resources estimated at 39 billion m^3/year. However, the total annual flow into the country (at Ripon Falls and from D.R. Congo) is about equal to the total annual outflow to Sudan, which means that a lot of water disappears within the country through evaporation from the lakes and wetland. Wetlands cover about 10% of Uganda's land surface.

Like many countries in Africa that had become formally independent from British colonial rule, Uganda, which became independent in 1962, launched several large-scale drainage programs, especially in the 1970s. However, a civil war that ended with the deposing of Idi Amin in 1979, and a rebellion by the National Resistance Movement that subsequently that led to the demise of the Milton Obote regime in 1985, destroyed these plans.

FIGURE 6
Location of Sudd Ramsar site in South Sudan

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In 1986, the government banned further large-scale drainage, and instituted the National Wetlands Conservation and Management Program, becoming subservient to the British-inspired and controlled Ramsar Convention on Wetlands of International Importance, which has been used for decades to hamper the development of water resources in Africa, under the guise of environmentalism and biodiversity. Direct British colonialism was replaced by "green genocide," and by International Monetary Fund and World Bank genocide. Only small-scale projects were allowed, and the country was encouraged to use its water and land resources for production of cash crops for export, such as coffee.

The Ramsar Convention specifies that each country must designate on its own territory, certain sites to be locked up in the "Ramsar List," now managed by a secretariat run out of the offices of the International Union for Conservation of Nature (IUCN) in Gland, Switzerland. In 1999, a "strategic framework" was designed "to develop and maintain an international network of wetlands which are important for the conservation of global biological diversity and for sustaining human life through the ecological and hydrological functions they perform."

Critical parts of the Sudd in South Sudan are on the Ramsar list too. This vast, marshy area, created by the White Nile, could be transformed into farmland by completing construction of the Jonglei Canal (see below). But fully 5.7 million hectares of the swamp are listed as a "Ramsar Site" to be frozen for eternity.

Large parts of the Lake Chad Basin, a world priority for upgrading through the proposed Transaqua Project for moving water from the Congo River to refill the disappearing Lake Chad, are listed as untouchable for development by Prince Philip's World Wildlife Fund and the IUCN. The specific designation is that there are wetland habitats for bird life in the Lake Chad basin that must remain off-limits to human projects. One hundred and sixty nations have signed the Ramsar Convention, and there are 1,898 sites on the list. This represents a total surface area of over 186 million hectares (more than five times the area of Germany!).

Final plan for the Jonglei Canal project were developed under President Nasser in the 1950s; an agreement with Sudan in 1976 paved the way for construction to begin in 1978. But a British/U.S.-backed rebellion halted work in 1984, when this huge, German-built excavation machine, nicknamed "Sarah," was shut down by SPLA rebels, when the project was 2/3 finished.

Under the Ramsar Convention, the government of Uganda undertook a "National Policy for the Conservation and Management of Wetland Resources" in 1995. It states: "7.1—Drainage of Wetlands: Uganda has experienced massive drainage of wetlands for human development activities. The effects of this drainage are visible in many parts of the country."

Uganda's "strategy" to deal with this issue is not development, but the contrary: "i) There will be no drainage of wetlands unless more important environmental management requirements supersede." Its explanation reads: "Artificial large-scale removal or exclusion of water from a wetland by whatever means constitutes drainage. This may be by pumping, by excavation of water channels and perhaps combined with excessive growing of trees. Other drainage means may include building of dams upstream of a wetland. Such modifications should be avoided."

But now that the British Empire's trans-Atlantic System is going down in bankruptcy, the suffering of the people of Uganda, among others, under the merciless forces of nature, will force governments to reverse that policy, with the help of the emerging BRICS system.

The Jonglei Canal

One of the most important drainage projects in Africa is the Jonglei Canal Project, intended to drain a portion of the Sudd swamps. The idea goes back to the British colonial period in the early 1900s. But the first serious study was carried out in 1946 by the Egyptian government, before it became really independent of the British. But it was under the progressive, republican government of Gamal Abdel Nasser that concrete plans were developed in 1954-59. An agreement with the government of Sudan in 1976 paved the way for the construction work on the canal in 1978. But a British-orchestrated, U.S.-backed rebellion halted the work in 1984. The first major military target of the Sudan People's Liberation Army under John Garang was the giant German-built excavation machine, nicknamed "Sarah." When the work was halted, 240 out of the total 360 kilometers had been completed. The canal is intended to divert a portion of the water from entering the Sudd, and send it directly, from south to north, from Bor to Malakal to provide great ecological and economic benefits to both the immediate region and downriver lands.

Sarah, a bucketwheel machine, was first used in Pakistan, where it had successfully dug the 101-km Chasma-Jhelum link canal between the Indus and Jhelum rivers (completed 1970). It was dismantled, brought to Sudan, and reassembled there. It was the largest excavator in the world, weighing over 2,100 tons. Operating at full tilt in 1981, the bucketwheel was excavating 2 km a week, and digging at a rate of 2,500-3,500 m^3 per hour. The great machine required 40,000 liters of gasoline per working day. The canal is designed

to divert about 25 million m^3 a day from the upper Nile waters just north of Bor, and channel it through a cut of 360 km, which would deliver at Malakal about 4.7 billion m^3 annually. This would mean adding to the downriver Nile volume about 3.8 billion m^3 yearly, as measured at Aswan (subtracting for losses in transmission). The draw-off of 25 million m^3 daily from the feed waters of the Sudd would reduce the swamp area by an estimated 36%, from an average total swamp area of 16,900 km^2 down to 10,800 km^2. The canal is designed to vary in width from 28 to 50 meters, and to vary in depth from 4 to 7 meters, to accommodate boat traffic. Parallel to the canal there was intended to be an all-season roadway, and ancillary projects include slipways, bridges, ferries, civil works for crossings and regulation, and other infrastructure.

When the South-North Sudan peace process was launched in 2000, efforts, especially by Egypt, re-emerged concerning the resumption of the project. While the Egypt and Sudan governments have agreed to re-start the Jonglei Canal project, the new South Sudanese government in Juba was more concerned about the future "independence" and separation issue. It was aided and encouraged by the U.S. and Britain to move into a confrontationist position against the central government in Khartoum. Moreover, South Sudanese politicians and the public were led to believe that the Jonglei Canal is an "Egyptian imperialist" project which would not benefit the South Sudanese people.

When independence was granted in 2011, South Sudan was left all alone by the former allies to face massive economic and social crises that led to an internal conflict among rival tribes and militias in 2014. The oil production in the South, the only source of income which was developed in the years of peace from 2000-10 by the Sudanese government, was halted due to emerging border conflicts with the North. The only exit route for the oil to the world market is the existing pipelines to Khartoum and Port Sudan on the Red Sea.

The South Sudan government and political leadership are finding themselves trapped in their newly founded state, with a massive food crisis, civil war, and physical isolation. The only solution is to resume cooperation with the North, and open new avenues of communication and trade with its neighbors in the south and east. This is fortunately becoming a reality, thanks to China's cooperation with the East African nations on development of transport corridors for the landlocked Sudan, Ethiopia, Uganda, Rwanda, Burundi, and D.R. Congo, through Kenya.[3]

A decision by the South Sudanese government to cooperate with Egypt and Sudan to resume Jonglei Canal reconstruction would be the real signal that South Sudan is ready to join the coming economic and social renaissance of Africa.

Hydropower, Water Management, Agricultural Development

A number of very important dam projects are currently under construction or planned, which would completely transform the Nile Basin nations' relationship to the biosphere. Sudan has recently accomplished the Merowe Dam in the north of the country, which is a hydropower and agriculture development program of great significance.[4] A new dam, Kajbar Dam, is planned further north, near the border with Egypt at the Third Cataract. Two dams are under construction on the Atbara and Setit rivers, two smaller tributaries emerging from northern Ethiopia. Almost all these dam projects involve Chinese construction and financing.

However, the greatest of the dam projects in the Nile Basin, and in Africa now is the Grand Ethiopian Renaissance Dam (GERD) on the Blue Nile. The name of Ethiopia in the past decades has been associated with famine, poverty, and conflict. That is about to change. Ethiopia, with a population of 86 million, an ancient historical identity, and enormous economic potential was not, until recently, able or allowed to realize its potential for developing its human, land, and water resources. The hydropower potential is a very clear example.

Ethiopia's long-term potential for exploitable hydropower is 45,000 megawatts (MW), but it has only exploited 2,000 MW! In 2009, less than 10% of Ethiopians had access to electricity. Since the initiation in 2004 of the construction of the Gilgil Gibe dam series 1-4 on the Omo River, increasing the capacity by 2,000 MW, the Ethiopian national power grid capacity is increasing by the double. The GERD, when completed in 2018, will add 6,000 MW to the grid. While the Gilgel Gibe dams were built by or financed by China, Ethiopia faced massive financial and propaganda attack from

3. Transportation projects for Africa will be covered in the next part of this series.

4. See "On Site Report: LaRouche Delegation in Sudan," *EIR,* April 24, 2009.

The Grand Ethiopian Renaissance Dam (GERD), when completed in 2018, will add 6,000 MW of hydroelectric power for the country's 86 million people.

Western environmental and financial institutions. But showing the power of a national credit-based alternative, the GERD, while being built by Italian construction giant Salini Impregino, is being financed by nationally emitted bonds available only to Ethiopian citizens at home and abroad, in addition to special taxes. This is the same method being followed by Egypt's new government under President Abdul Fattah el-Sisi to finance the new national development projects such as the New Suez Canal and Toshka Project (see *EIR*, Sept. 5 and Sept. 12).

Construction of the GERD was launched in 2011 by then-Prime Minister Meles Zinawi. Salini Construttori was awarded the contract which is worth US$4.3 billion. Chinese banks are to finance the hydropower plant and its components for a cost of US$1.8 billion. Neighboring countries are being solicited to contribute to the financing of the dam, in return for delivery of electricity. Djibouti is so far the largest purchaser of the GERD bond, but Egypt and Sudan have not contributed, pending a political and technical decision to be reached through a tripartite special committee studying the impact of the dam on the latter two.

The dam will be a 170-meter-high, 1,800-meter-long gravity-type, composed of roller-compacted concrete, and will have two power houses, one on either side of the spillway. The left and right power houses will each contain 8 x 350 MW Francis turbine-generators. Supporting the dam and reservoir will be a 5-km-long and 50-meter-high saddle dam. The dam's reservoir will have a volume of 63 billion m^3 (about a whole year's discharge of the Nile at Aswan Dam in Egypt). This, as mentioned, is a major source of concern in Egypt, as filling the reservoir in the years following the completion of the dam could reduce the flow of the Nile by 10-15% annually.

Benefits and Concerns

As noted earlier, since the Blue Nile is a highly seasonal river, the dam would help reduce flooding downstream, including on the 40-km stretch within Ethiopia, and Sudan beyond that, which has suffered from flooding almost every year.

In earlier times, the flooding was considered beneficial for the limited agriculture, as it brought minerals to the soil and helped irrigate new areas. However, with the advent of modern agriculture and irrigation methods, the ancient ways of agriculture have to give way to modern ones. The GERD, although it is not located in a densely populated region, would serve as part of the basic infrastructure for modernized agro-industrial centers. With the dam also representing a bridge over the Blue Nile, and with roads, cement factories, and industrial workshops being set up for the construction work, this region will become one of the fastest-growing in Africa.

The idea of transferring electricity over long distances to serve other parts of the country, and exporting electricity to Sudan and Egypt, sounds like a necessity, and a source of income for the country now, seen with monetarist eyes. In the long run, however, and if Ethiopia develops properly as an agro-industrial nation, then almost all that power, and even more, will be needed to meet domestic needs. For Egypt and Sudan, development of nuclear power is the alternative for the future.

The precise impact of the dam on the downstream countries remains a matter of speculation, since no common understanding is being created. Egypt fears a temporary reduction of water availability due to the filling of the dam, and a permanent reduction because of evaporation from the reservoir. The reservoir volume is about equivalent to the annual flow of the Nile at the Sudanese-Egyptian border (65.5 billion m^3). This loss to downstream countries would most likely be spread over several years.

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The Aswan Dam across the Nile River provides hydroelectric power to Egypt. There are fears that the reservoirs created by the GERD could affect Egypt's electric power supply. The solution is for Egypt, in particular, to develop nuclear power.

Reportedly, during the filling of the reservoir, 11 to 115 billion m^3 of water per year could be lost. It is also feared that this would affect Egypt's electricity supply from the Aswan Dam. The GERD could also lead to a permanent lowering of the water level in Lake Nasser, if floodwaters are stored in Ethiopia instead. On the positive side, this would reduce the current evaporation of more than 10 billion m^3 per year. But it would also reduce the ability of the Aswan High Dam to produce hydropower.

The reservoir, located in the temperate Ethiopian Highlands, and up to 200 meters deep, will experience considerably less evaporation than downstream reservoirs such as Lake Nasser in Egypt, which loses 12% of its flow due to evaporation as the water sits in the lake for 10 months. Through the controlled release of water from the reservoir to downstream, this could facilitate an increase of up to 5% in Egypt's water supply, and presumably that of Sudan as well.

The GERD will also retain silt, thus increasing the useful lifetime of dams in Sudan—such as the Roseires, Sennar, and Merowe dams—and of the Aswan High Dam in Egypt.

Relations with Egypt

While the Sudanese government has declared its support for the GERD dam since 2011, in Egypt, the picture has been different. During the short rule of the Muslim Brotherhood in 2013, a massive media campaign was carried out against the GERD dam, with allegations that it would dry up the Nile River, and threaten the existence of Egypt as a nation. The tension prevented the countries from continuing the negotiations and joint studies that were initiated through a joint panel of experts.

The Egyptian leadership under el-Sisi is developing a new approach. During a visit to Ethiopia on Sept. 4, Egypt's Foreign Minister, Sameh Shoukry, discussed with his counterpart Tedros Adhanom, the avenues for political and economic levels of cooperation between the two countries. One of the key issues is the resumption of the work of the GERD tripartite joint commission of experts from Egypt, Sudan, and Ethiopia. Shoukry stated that Egypt considered ties with Ethiopia as a key component of his government's foreign policy.

Egypt's Irrigation and Water Minister, Hossam el-Moghazi, headed a delegation to Khartoum in late September, to meet with his Ethiopian and Sudanese counterparts, and to resume the work of the tripartite committee.

El-Moghazi later visited the site of the GERD construction and reported to Egyptian media that he received new documents, maps, and technical studies that he will hand over to Egyptian experts to study, and make sure that the dam has no negative impact on Egypt. He also called on the Egyptian media to use precision and objectivity in reporting about the impact of the GERD on Egypt, in order to preserve friendly relations with Ethiopia. He further emphasized that the GERD will not affect the flow of water to Egypt, as its purpose is to generate power, and not transfer water to other regions, or use it for agriculture in Ethiopia.

President el-Sisi met with Ethiopian Prime Minister Hailemariam Desalegn in June in Equatorial Guinea during the African Union Summit, and again in New York in September on the sidelines of the UN General Assembly. El-Sisi is due to visit Ethiopia before the end of this year.

For these two giants of Africa to work together would be an important step in the right direction. Political differences and intrigues among the nations of the continent have delayed Africa's development for decades. It is through sound scientific studies and creative economic thinking that they can exit the colonial era and enter the era of sovereignty and development.