NORTH AFRICA

Making the Sahara Bloom: The Blue Revolution

This is the edited transcript of a Schiller Institute video posted at http://www.schiller-institut.de/. It is available there in both English and German. We include a small selection of the graphics, while urging readers to view the video to get the full impact. The narrator is Daniel Grasenack-Tente.

From North Africa to the United States, people are rising up and demanding their freedom, dignity, and bread! They are demonstrating everywhere around the world against the corrupt leadership of an already failed system: from the Maghreb all the way to Dresden and even Madison, Wisconsin.

Schiller Institute

Narrator Daniel Grasenack-Tente

It is understandable that the demonstrators in North Africa do not trust the Western world. After all, those whom the Western press has suddenly proclaimed to be dictators, were just recently our close allies in the fight against terrorism, and had the full support of the IMF.

Within the last 12 months, the IMF has positively rated Egypt, Libya, Tunisia, Bahrain, and Yemen, saying that they had "good macroeconomic management," "prudent macroeconomic policies," "positive short-term prospects," and "healthy economic policies." Libya was even positively singled out for praise.

Praise for a decades-long policy of liberalization and deindustrialization; praise for massive unemployment; praise for 30 years in which not a single ambitious infrastructure project inspired the youth generation. Praise and a Judas kiss for the destruction of their own economy.

Courageous and large development projects must replace IMF policy. There are ambitious designs, such as the Roudaire Plan to desalinate water using the fourth generation of nuclear power reactors, the construction of the Tunis-Berlin transport corridor, and the greening of the Sahara with the help of advanced technologies at our disposal and those still to be developed.

Although small to medium-sized companies in Europe will play an important role, important decisions

must first be made elsewhere. Sovereign states and their governments must overturn the old paradigm and halt encroaching chaos.

An international Glass-Steagall standard must be implemented to separate speculative from commercial banking. Speculative debts will no longer be paid, thus freeing up the massive amounts of credit needed to begin international development projects.

The failed global system based on the free-market economy will have to make room for an international credit system with the cooperation of sovereign states. Globalization will disappear into the grave it has dug for itself for the past 40 years.

What President Franklin Roosevelt saw, as he flew over North Africa in 1943.

From FDR to the World Land-Bridge

1943. Nothing but sand. President Roosevelt, flying over North Africa, saw nothing but desert for hours and hours. But he knew about the underground river-systems buried there.

Roosevelt: "Divert this water flow for irrigation purposes? It'd make Imperial Valley in California look like a cabbage patch! And the salt flats: They were below the level of the Mediterranean; you could dig a canal straight back to re-create that lake—one hundred and fifty miles long, sixty miles wide. The Sahara would bloom for hundreds of miles!"

In the '50s, U.S. President Eisenhower tried to breathe life into Roosevelt's plan through his "Atoms for Peace" program, when he proposed to build nuclear power reactors for water management projects in Egypt. The proposal included filling up the Qattara Depression with water.

National Archives

President Roosevelt and President Edwin Barclay of Liberia, Jan. 27, 1943.

Lyndon LaRouche also campaigned in this same Franklin Roosevelt tradition. Taking part in a conference in Baghdad in 1975, he presented plans for the agricultural development of the region that would see the implementation of highest technologies (**Figure 1**).

Since Roosevelt's death, the British Empire has intervened to put a stop to his plans for the future. Henry Kissinger's NSSM 200 of 1974 is a prime example of this. Kissinger targeted 13 nations for brutal conditions of underdevelopment, using food as weapon, among other things. Egypt was one of these countries.

During LaRouche's international mobilization for the Strategic Defense Initiative, he proposed that Egypt should be elevated to become "the Japan of the Middle East" through technological and

FIGURE 1
LaRouche's 'Oasis Plan' for Development of the Middle East Crossroads

EIRNS

scientific investments. But when discussions between LaRouche and Egyptian ministers led to his invitation to a conference in Cairo in 1982, Kissinger intervened personally to prevent it.

Franklin Roosevelt's heritage and the future of Egypt seemed bleak.

If there is to be a future in this region, we must bring the policies of Roosevelt and Eisenhower back once again, but this time, with the depth of LaRouche's physical economic idea of the "platform," and with a much wider scope.

This is what the World Land-Bridge entails (**Figure 2**).

To build the connection across the Bering Strait to the NAWAPA [North American Water and Power Alliance] project, as well as the development corridors from Tierra del Fuego through the Darien Gap and Mexico, from the United States and Canada towards Siberia and then the Eurasian Land-Bridge. Whole continents will be brought onto a higher economic platform, each step of development of the economy taking place in a totally different international and technological context, a process which will be the actual driver of economic development.

Not only will there be jobs created, but man will be in a position to consciously form the world in which he lives. He will unite countries though mutual development; he will bring continents closer together and also change the climate—both politically and biologically.

So, when we look at Africa today, it must be from the standpoint of an all-encompassing and global change, rather than by trying to solve problems that look like they're local in nature, but oftentimes are not.

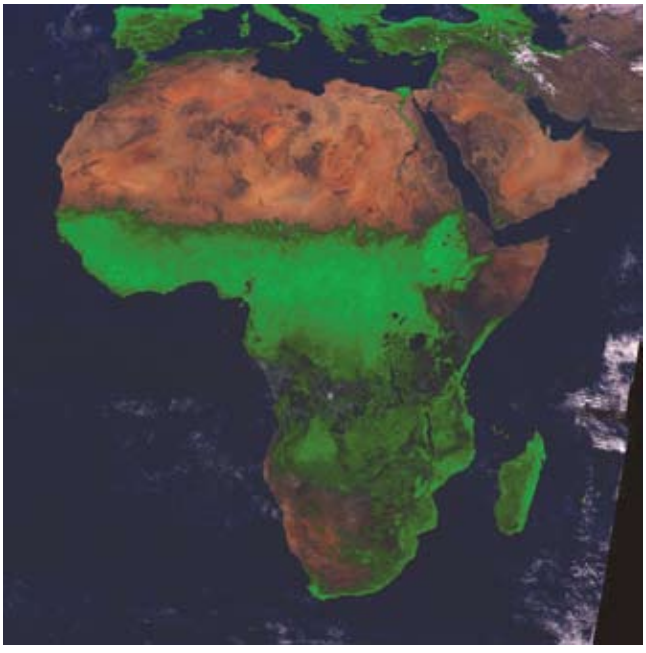
Outflanking the Sahara

Let us begin with the Sahara. Conquering it may seem, at first sight, to be a formidable task, but there are already key concepts in place to allow us to begin tack-

FIGURE 2
The World Land-Bridge
(Proposed and Existing Railways)

EIRNS

FIGURE 3
The Challenge Facing North Africa: Water!
(1984)



NASA/Goddard Space Flight Center Scientific Visualization Studio

ling the problem of greening this 9-million-square-kilometer vast desert (**Figure 3**).

After all, nature has already solved this problem once before. More than 400 million years ago, a plant named Cooksonia, with neither leaves nor roots, appeared on the surface of the planet. It had the ability to live outside the ocean, because, as fossil evidence shows, it carried the water within its own body. In succeeding generations of plants, developing as they moved from the coasts to the interior, the hydrological cycle was brought to the once-dry continents.

A recent theory developed by Russian scientists Makareyeva and Gorshov shows the biosphere's inland activity to be a breakthrough process; they called it "the biotic pump." They discuss that, much like the human heart, the forest pumps the life-giving moisture inland to allow more growth, and increasing rainfall.

The chain of life thus created between the coasts and the inland area has a unique relationship in the evapo-transpiration cycle, where plants on the coasts are able to suck the moisture inland from the ocean.

There are other theories for why rich plantlife produces and moves such dense amounts of water, but no one really knows the answer yet. The best way to find out, is to test it, and if we bring this idea back to the Sahara, we could use it to outflank the desert.

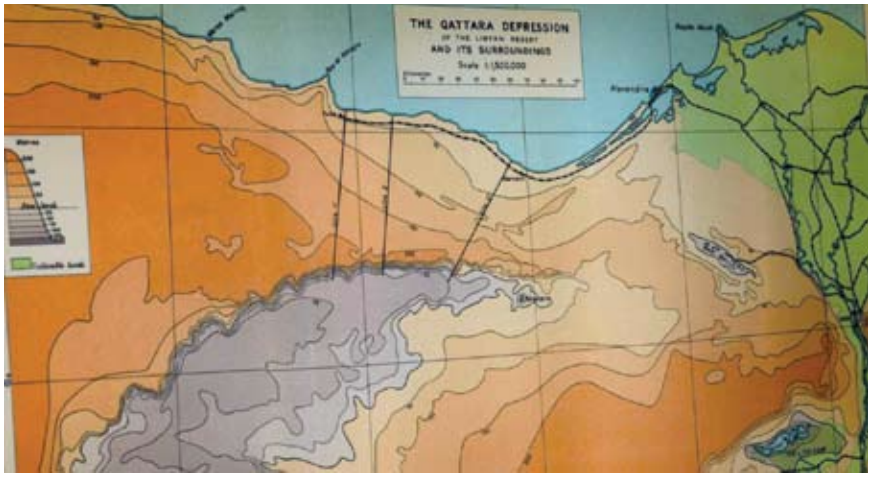
There already exist a few programs to bring water inland from the ocean, which would create, as FDR said, "a vast inland sea." The proposal to fill the Qattara Depression in Egypt (**Figure 4**) by a canal from the Mediterranean, and the similar proposal to fill the chotts in Tunisia and Algeria, have existed since the early 1900s.

Now, let us take a closer look at these proposals, to really understand the problems involved, and see how we could make these projects a reality.

Tunisia/Algeria: The Roudaire Plan

In 1874, French topographer François Élie-Roudaire published an article titled "An Algerian Inland Sea." He was convinced that he had discovered a vast depression of salty marshlands, which the Arabs called "chotts," extending over nearly 400 km, from Algeria to the Gulf of Gabès in Tunisia. With the backing of the architect of both the Panama and Suez canals, Ferdinand de Lesseps, he proposed to bring seawater back in, by digging a 240-km canal. Among other advantages, Roudaire argued, the introduction of such a huge volume of water would change the local climate, and could transform the whole region into a "breadbasket." For various reasons, the project was never realized at

FIGURE 4
The Qattara Depression



In 1884, François Élie-Roudaire (left) developed a plan for "an Algeria Inland Sea," to dig a canal from the salty inland marshalnds, or chotts, to the Mediterranean, thereby changing the local climate. Ferdinand de Lesseps, the architect of the Panama and Suez canals, supported him. Unfortunately, the project was never realized.

that time.

Today, however, from the standpoint of a higher cognitive and scientific "platform," that undertaking can at last succeed; and with the aid of modern technologies, such as large-scale desalination of saltwater, we will be able to turn these desert areas into fertile gardens.

Let us now show you how.

It all begins with the arrival—by sea!—of the principal power-generator for the whole project (**Figure 5**). In July 2010, the Russian state atomic energy corporation, Rosatom, launched the new generation of floating nuclear power plants. This revolutionizing technology will provide remote regions and underdeveloped nations with easy access to electric power and process heat.

This floating nuclear power plant, according to our plan, would now be anchored off the coast at Gabès, where, a couple of months earlier, a huge concrete reservoir had been installed atop a hill overlooking the coastline, with a large conduit descending down to the bay, and then to the mooring.

One month later, the sound of water would be heard near the reservoir, which is quickly filled up. Hydroelectric turbines soon start generating electricity for the city.

A necessity in this process is, of course, to remove the salt from the ocean water, in order to turn it into potable water for human consumption, and—not to forget—for irrigation, so that dry areas can be greened and used for growing food. Desalination plants have been operating for 50 years, and as of today, there are more than 13,000 desalination plants worldwide, producing more than 45 billion liters of water per day (**Figure 6**). That might sound like a lot, and if distrib-

FIGURE 5

http://www.schiller-institut.de

Under the Schiller Institute's plan, Russian floating nuclear power plants like this one would be anchored off the coast of Gabès, Tunisia, providing the principal power source for the project.

FIGURE 6

http://www.schiller-institut.de

There are more than 13,000 desalination plants in the world, but that is not nearly enough to meet the need.

FIGURE 7

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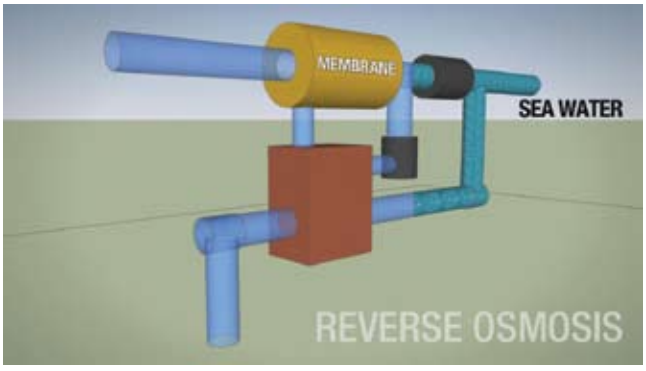
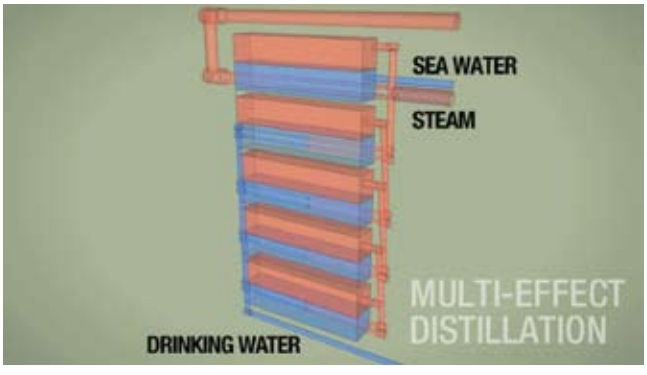
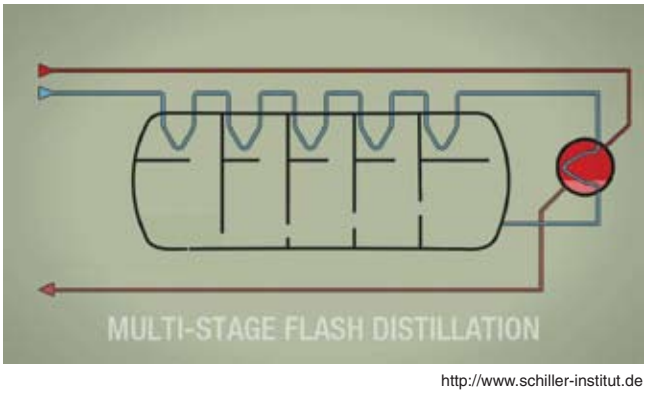
A schematic of a nuclear desalination facility for North Africa.

FIGURE 8







http://www.schiller-institut.de

The three principal methods of desalination of seawater. Research is continuing on how they can be improved.

uted equally to a world population of 7 billion human beings, it would give every person almost seven liters per day. But if we think about the global hunger crisis, and the absolute necessity of irrigating massive land areas that are today useless for the needs of humanity, those 45 billion liters are just peanuts! Just to give you an idea: If you would pour those 45 billion liters over the world's land area, it would correspond to less than one cubic meter of water for the irrigation of each square kilometer of land. That does not get us far!

What we need is a large-scale water desalination program, which, because of the sheer scale of it, must be based on the latest breakthroughs in nuclear science.

Any power plant—even a small diesel engine—can be coupled with a desalination facility. But nuclear plants are the most attractive power source for desalination, because they are more energy-intensive, and also cleaner, than plants fired by conventional fuels (**Figure 7**). Although almost any kind of nuclear plant could be used to power a desalination facility, the fourth-generation high-temperature nuclear reactor—which is 50% more efficient, modular, mass-producible, inherently safe, and originally developed in Germany!—is ideal for the job.

During the desalination process itself, there are three main technologies in use (**Figure 8**): In *reverse osmosis*, pressure is applied to force the saltwater to get filtered through a semi-permeable membrane. *Multi-effect distillation* consists of a number of stages, where, in each step, the water is heated by steam in tubes, so that it evaporates and then condenses onto the next tube. *Multi-stage flash distillation* is based on an ingenious system of countercurrent heat exchange, where a portion of the water is flashed into steam in multiple stages, and then condensed by the incoming flow of colder seawater. All three technologies are still undergoing research to improve efficiency and cost.

The large amount of freshwater produced at our desalination plant in Gabès, will now be used to fill up an aqueduct placed around the first chott, the el-Fejaj Chott.

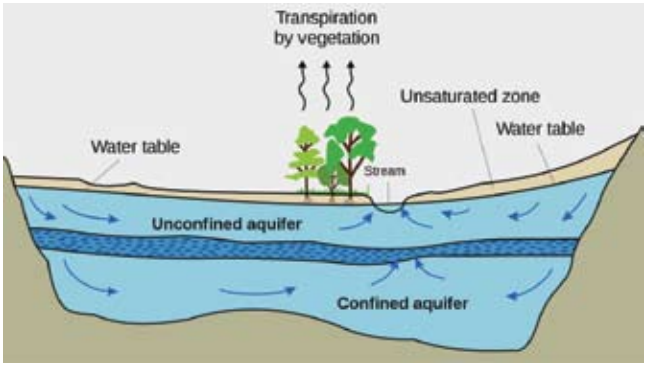
Now, the Herculean task begins: to get rid of the salt which has accumulated in the soil of these basins for thousands of years. When the aqueduct pours freshwa-

FIGURE 9

http://www.schiller-institut.de

For the Sahara, supplying freshwater will not solve the problem of getting out the salt deep in the soil. Among the techniques to be used will be planting halophytes—plants that live in saline environments and absorb salt.

FIGURE 10



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This diagram illustrates how ancient aquifers will be replenished, using freshwater produced in Gabès.

ter into the chott—through a system of small canals, pipes, and polders, as commonly used in irrigation—that water rinses the soil, and carries the saltwater to the sea, via specially built underground conduits the size of a man. This process of carrying the salt to the Mediterranean will take several years. Since the salt is deeply encrusted in the soil, it cannot be extracted quickly, not even by bulldozers, but the freshwater will have to move the salt upwards, month after month. The process will be accelerated by increased rainfall.

In order to eliminate the remainder of the salt, we can plant halophytes, plants that like growing in saline areas and absorb the salt (**Figure 9**). Recently, thanks to bio-technologies, halophyte varieties of rice have been created, which will also help solve the food crisis.

By now, the first chott has been replaced by a real freshwater lake, which is a much better solution than Roudaire's "inland sea," which would have increased the soil's salinity. Now, we will use the technique of the famous Dutch polders, in order to win large areas of useful farmland through a network of drainage canals. At first, we plant halophytic plants and bushes specially developed for the purpose; they will later be replaced by palm trees. All this new pasture land will also allow for a dramatic increase in cattle-raising.

In short, we have just created a renaissance of local farming, and, thus, filled the necessary first criterion on the way towards the food security every nation must attain.

In the same way as we are able to reclaim the land for the el-Fejaj Chott, we will reclaim the el-Djerid Chott and the el-Gharsa Chott, making freshwater available for great numbers of people. Thus, new cities will be founded. Not only humans, but also migrating birds, which have shunned them for centuries, will find these climes welcoming.

Another indispensible phase of the Blue Revolution will be to install derricks alongside the network of aqueducts; not to pump oil, but to inject freshwater produced in Gabès into the geological depths. In this way, the aquifer underneath what had been an arid desert, will be revived (**Figure 10**). That aquifer allows agriculture to flourish, and will provide a daily source of water to drink.

On the Algerian side, the Melrhir Chott will be subdivided into smaller basins, in order to facilitate the desalination process. An extra desalination plant will also be built here. Meanwhile, in Tunisia, other nuclear power plants will be built, ten times more powerful. More freshwater will be produced in a floating desalination plant. A new irrigation canal will connect Gabès to our newly founded city in Algeria.

The water now flowing generously in the Sahara, will change local weather patterns, and stimulate increased rainfall, further creating the conditions for life, so that the population can grow. Instead of exporting oil and gas cheaply, new petrochemical facilities and other industries can be created, such as manufacturing and mining. This, in turn, requires research facilities and universities to be established.

The Tunis-Berlin Corridor

The newly developed local processing industry, as well as the booming population in the region, require an

FIGURE 11

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Development corridors across North Africa would use high-speed rail, including to connect with Europe.

FIGURE 12

The Proposed Sicily-Tunisia Tunnel

EIRNS/Flavio Tabanelli

FIGURE 13

Modern Techology for Digging a Submarine Tunnel

http://www.schiller-institute.de

efficient transportation system. The cornerstone of this new development corridor, going through Tunisia and into Algeria, is a high-speed rail network (**Figure 11**), which naturally should not be restricted to a few hundred kilometers, but needs to continue further to connect with North Africa's closest neighbor: Europe.

The tunnel between Tunisia and Sicily will be a 150-km-long rail-freight link across the Strait of Sicily in the Mediterranean, connecting Cape Bon on the northeastern tip of Tunisia with Pizzolato on the west coast of Sicily (**Figure 12**). This project was first presented internationally at the Schiller Institute conference in Kiedrich, Germany, in 2007.

The Italian government agency ENEA recently presented a feasibility study, in which the researchers suggested the construction of four artificial islands, which will be built with the excavated material. Having the tunnel constructed in five sections between these four intermediate islands will reduce the construction time and cost, as each section can be reduced to only 30 km. Furthermore, these islands can also be used for fishing and recreation.

The author of the tunnel project, the Italian nuclear engineer and transportation expert Dr. Pietro La Mendola, said that "to dig a submarine tunnel has become highly feasible, with modern technologies. As an engineer, I must update my knowledge on digging technologies every three months. Modern machines dig 1.5 km per month. That means that the tunnel would be ready in about 60 months" (**Figure 13**).

During the construction, the

Creative Commons/Cooper.ch

Amazing results with modern construction equipment: The Gotthard Base Tunnel through the Swiss Alps (shown here in progress, in 2006), was completed in 2010.

project would create 10,000 highly skilled jobs in Tunisia alone, which would be a major factor in stabilizing emigration, but the long-term positive effects would of course be much greater than just that.

The building of the Tunisia-Sicily Tunnel is part of a 2,500-km-long land-bridge corridor from Tunis to Berlin, continuing eastward from there.

With this tunnel between Europe and Africa, the planned Messina Bridge between Sicily and the Italian mainland would have an entirely different significance, changing its role from only a connection between two Italian regions, to becoming a vital part of an intercontinental system.

As for the current state infrastructure of southern Italy, the Mezzogiorno region, Italian Economics Minister Giulio Tremonti polemically described the situation, after having travelled through the South: "Trains coming from the North have flies squashed on their windshield. Trains coming from the South don't. In the South, the flies are faster than trains."

With high-speed rail, particularly magnetic levitation, the Mezzogiorno would undergo a total transformation, from an underdeveloped, proverbial "Deep South," to a modern agro-industrial region, strategically located as a gateway to the African continent.

Further development projects are underway: The breakthrough of the Gotthard Base Tunnel through the Swiss Alps caused much rejoicing in October 2010; the Berlin-Tunis north-south corridor will be one of the important arteries of the World Land-Bridge network.

With the building of the 38-km Gibraltar Tunnel between Spain and Morocco (expected to open in 2025), the Marmaray Railway Tunnel under the Bosphorus in Istanbul (opening in 2013), and additional transportation projects within the Oasis Plan for Southwest Asia, the Mediterranean will become an integrated region, with an uninterrupted circulation of transport of goods and passengers along the Mediterranean coast. This will, once and for all, put an end to the underdevelopment that the region has suffered, and provide a future for the youth!

Egypt's and Sudan's Struggle for Development

Let us compare the population densities of Europe with those of Northern Africa, to bury, once and for all, the Malthusian lie that Africa is overpopulated. Apart from some areas along the coast and the Nile River, Northern Africa is almost totally uninhabited.

FIGURE 14

Egypt's Population Density

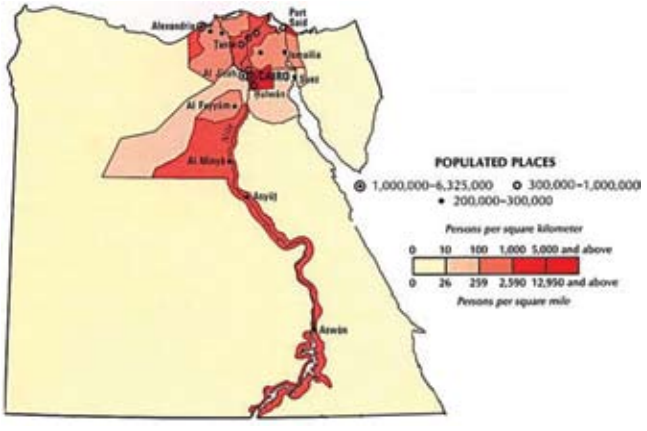
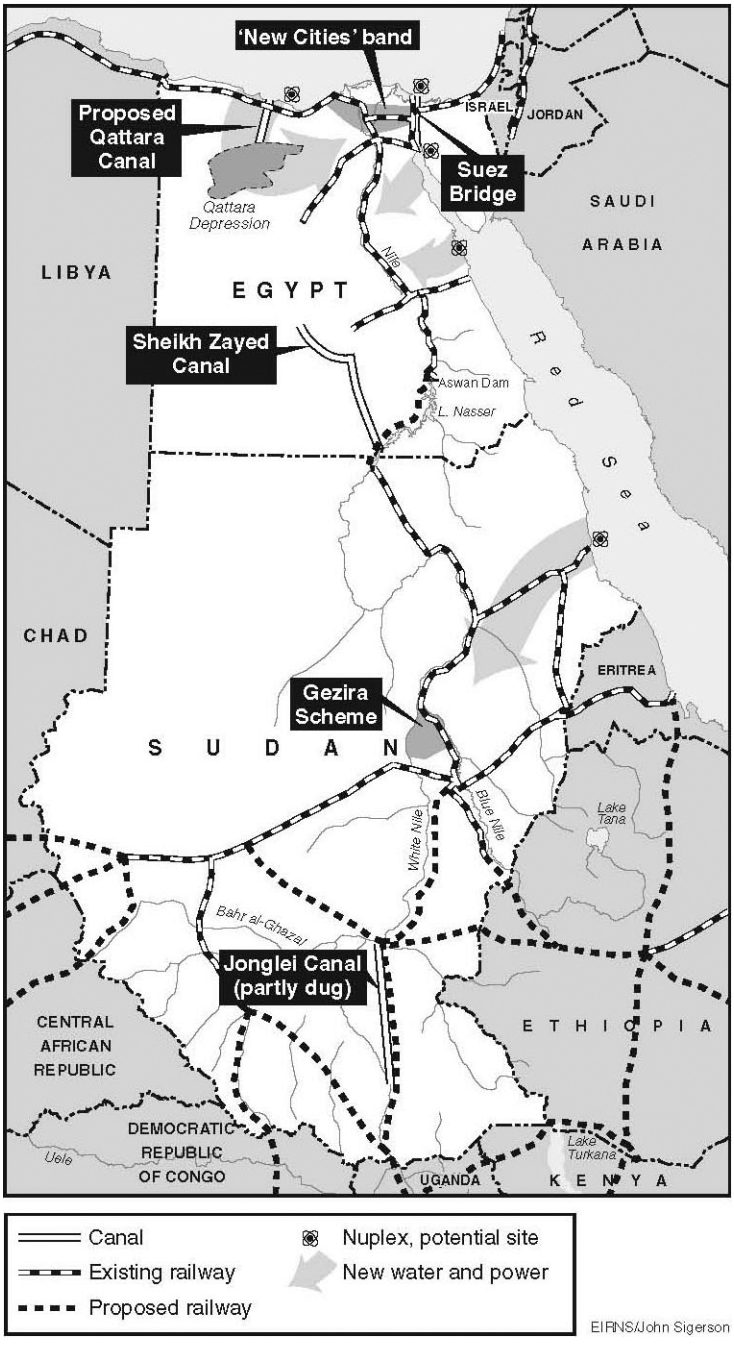


FIGURE 15

Egypt and Sudan: Selected Infrastructure Projects, Present and Proposed



Take the case of Egypt (**Figure 14**). More than 80 million Egyptians are packed into a slim strip of land, less than 7% of the total land area, on the banks of the Nile, and in Cairo and the Nile Delta. It is the lack of technological and infrastructural development which is the problem, not the number of people. Egypt has been denied real development for more than 30 years.

In 1981, after the assassination of President Anwar Sadat by the British-created Muslim Brotherhood, President Mubarak came to power, but Egypt's economy was based on what President Gamal Abdel Nasser had established as a state-directed economy based on infrastructure building, agricultural reform, and industrialization. This included the nationalization of the Suez Canal and the construction of the Aswan Dam. It was because of this development orientation, combined with a growing population, that Henry Kissinger put Egypt on the list of countries targeted for depopulation.

In 1982, the Egyptian government was ready to implement the proposals made by LaRouche and his associates: building nuclear power, transferring desalinated water to desert areas, including the Qattara Depression in the northwest; creating new cities as satellites of existing cities, rather than trying to manage the ghettos of Cairo and Alexandria; transforming the landscape, and thereby creating new agriculture, new sources of food supply, making the deserts bloom, and making Egypt and Sudan the breadbasket for all of Africa and the Arab countries (**Figure 15**). LaRouche's representatives interviewed Egyptian government ministers, who said that they "agreed 100%" with LaRouche's proposals.

But at this point, Kissinger and company moved in, as agents of the British, and said, "No." Egypt was not allowed to invest in agro-industrial development, but instead had to import food. The orchestration of the Iran-Iraq War of the 1980s, the two Iraq wars, and other conflicts in the region, forced the whole region away from economic development, driving it into a war economy. Instead of importing machines and nuclear power plants, Egypt was forced to buy weapons—leading to huge profits for British-run weapons cartels, while Egypt was thrown into a debt trap. The IMF could thereby force Egypt to devalue its currency, to privatize its industries, and to export cash crops in exchange for hard currency.

By the 1990s, Egypt had become totally dependent on these cheap agricultural exports, but also on tourism, with fanciful tourist resorts being built on the beaches of the Red Sea. Massive media campaigns promoted

the myth that this was "development."

It is these policies, imposed from the outside upon Egypt, that the people revolted against! And it is only by reversing the decision to impose these murderous policies upon Egypt, that the problem can be solved.

The key issue here is food production. The Egyptian farmer is among the most resourceful in the world. The yields per hectare for crops such as rice, sugarcane, corn, and wheat, rank among the highest in the world. Two or three harvests a year are often possible.

The challenge all along has been to simply expand the habitable and arable area, outside the valley and delta of the Nile. Ironically, the sands of much of the Sahara have a good potential for agriculture. During the time of the last glaciation, it used to be green and luscious.

In northwestern Egypt, only about 70 km from the Mediterranean coast, lies the Qattara Depression, likely the remnant of a great salt lake, whose deepest point is more than a hundred meters below sea level. One of many proposals is to dig a canal to within a few kilometers of the Depression, then run the flow in a tunnel through the escarpment, and desalinate the water by it sending it down reverse osmosis membranes at high pressure. Like the salty chotts in Tunisia, the soil is spoiled by concentrated saltwater deposits underneath; therefore, a package of nuclear-powered desalination and related engineering projects is required to successfully transform the landscape. Restarting plant growth over such a large area, will restart the rainfall patterns needed to once again make this part of the Sahara green, habitable, and arable.

In the south of Egypt, the Toshka project consists of moving large amounts of Nile River water by pumping water from Lake Nasser behind the Aswan Dam, into the desert west of the lake, where the ancient bed of the Nile is believed to have run, thereby creating several lakes. The Toshka overflow canal, completed in 1978, first came into use in 1996, when Lake Nasser reached record high levels.

A comprehensive program for the development of today's desert area west of the Nile, has been designed by an Egyptian patriot, Dr. Farouk El-Baz, an Egyptian-American scientist who worked with NASA in the United States in the planning of exploration of the Moon during the Apollo missions. He is currently the director of the Center for Remote Sensing at Boston University, and adjunct professor of geology at Ain Shams University in Cairo.

According to Dr. El-Baz's plan, a north-south development corridor will be built parallel to the Nile, at a distance between 10 and 80 km, running 1,200 km, from the Mediterranean coast all the way to the border with Sudan. The proposed project includes the establishment of a superhighway of the highest international standard, a railroad for fast transport, 12 east-west branches to connect to high-density population centers along the way, a water pipeline from the Toshka Canal, an electricity line, and a new international port. New agro-industrial centers and cities will be built in this "New Valley" (**Figure 16**).

FIGURE 16
Proposed Development Corridor West of the Nile

Dr. Farouk El-Baz, http://tiny.cc/n2uf5

Further upstream along the Nile, in Sudan, the Merowe Dam was opened in 2009 (**Figure 17**). This massive infrastructure project, which will add 1,250 MW to the national grid (doubling Sudan's power supply), and add more than 1 million acres of farmland, is one of the main reasons that Sudan has been targetted by the British Empire, which wants to keep Africa in poverty, recolonize its independent nations, and loot its natural resources. Sudan is the greatest area for grain production in all of Africa, and agricultural projects here, such as the famous Gezira farmlands, could pro-

FIGURE 17

vide self-sufficiency in food for the entire region.

An agreement among the nations in the entire region along the Nile, which as a water system also includes Ethiopia and Eritrea, on cooperating in these water projects and food production projects, is the key to success.

New Cities

This land reclamation, expanding the habitable area outside the confines of "the Old Valley" along the Nile, poses the challenge of designing new cities. By the 1970s, Egypt had not built a single new city for a hundred years, since Suez City. Then, it began to embark on an ambitious "new cities project."

The new cities include Sadat City, 6th of October City, and 10th of Ramadan City.

Started in 1977, 10th of Ramadan City was designed to be an independent hub of medium and heavy industries, ultimately providing some 150,000 jobs, including factories for glass, piping, and cement. Each of the new cities is custom-designed, and this one was built in the shape of a nonagon, divided into a number of residential areas. Each residential area is further subdivided into districts, which are arranged in a circular pattern around a central service area, with supermarkets, primary schools, and public services. The larger residential areas, in turn, surround the main city center with its public and recreational services.

By the early 1980s, Ramadan City was already a rather large oasis in the middle of the desert.

However, the expansion process was halted by the world economic breakdown crisis, with its devastating effects on the Egyptian economy. Today, large desert areas, intended for buildings, and for the most part sold to private investors, are still lying unused. Tens of thousands of people commute back and forth, working in the new city by day, and returning at night to Cairo, some commuting up to seven hours daily, and spending up to one-third of their income on transportation. This is an obvious example of the need for a high-speed transportation network, preferably using magnetic levitation.

In 1987, Helga Zepp-LaRouche outlined in her writing on "The City of Cusa" how new science cities, where the foremost scientists will come together to work on solving the problems of the next 100 years of civilization, should, in their city design, harmonically combine scientific and technological progress with the principles of Classical architecture. The cities will be designed around a center of cultural and educational development of the population. This will be surrounded by a region of housing, followed by the relevant industrial activity, and around that, the farmland. Public transport will be designed to deliver the majority of workers and students to their destinations in about 15 minutes or less. Such transport infrastructure, and especially goods transport, will be located underground (**Figure 18**), in order to free up the surface of the city for the benefit of pedestrians and beautiful architec-

FIGURE 18

http://www.schiller-institute.de

A proposal for urban planning in the new North Africa includes underground transport of people and cargo.

ture. High-speed magnetically levitated rail transportation systems will connect the broader region, with speeds and efficiencies that are superior to flight.

Space Science

An absolute necessity for the required dramatic increase of the standard of living of Africa's peoples, is: space science! Transforming the continent, through projects of the scope of Transaqua, the Roudaire Plan, and the Qattara project, requires mapping resources, water management, geographic and geologic analysis, land-use planning, and agricultural monitoring—all of which are done most efficiently using space-based technologies. For example, satellite overflights of the continent, using a special camera with remote sensing, can detect the location of underground water.

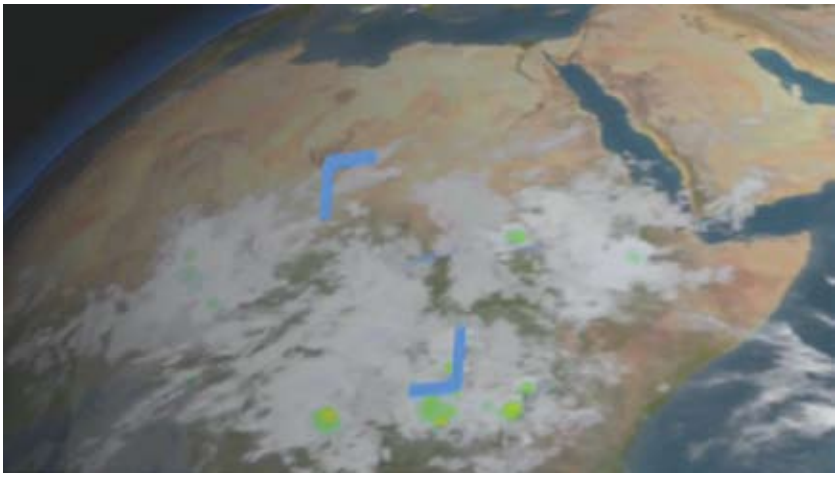
In August 2010, the Communication Ministers of the African Union countries took the first step forward toward the formation of an African Space Agency. The former director of Egypt's space program, Dr. Mohamed Argoun, recently proposed a continent-wide satellite project, AfricaSat, to bring together, and enhance, the technical and industrial capabilities of Africa. This is a good example of how a collaborative effort across the whole continent, would lead to the benefit of all.

This approach brings us to now reflect on the higher principle of the non-bestial nature of man. It is to intentionally begin directing inter-hemispheric weather for the benefit of man and the biosphere. Using their climate-monitoring satellites, NASA research teams have begun to trace the genesis of some of the major hurricanes experienced in the Gulf of Mexico.

This is Hurricane Isabel from 2003 (**Figure 19**). The trade winds are coming into the eastern side of Africa through the Ethiopian mountains. The homogeneous air flows are differentiated by the surface, turning them into vortices; these then travel eastward. While following along the Sahel region, the hotter air from the desert adds to the speed of these waves and pushes it higher by lowering the pressure. By the time these streams get to the coast, where the water is suddenly cold, and if the inward winds off the coast have the right push, then a hurricane is formed.

If we develop this particular region in the way we've been discussing here; if we bring up the vegetation, and add to the forests in the Sahel, we know that a regional

FIGURE 19
Hurricane Isabel, 2003, Began in East Africa



NASA

FIGURE 20
DESERTEC: Paving Africa with Solar Panels

DESERTEC

This racist and oligarchical plan, which is well underway, will dry out the region further, extending the Sahel desert.

cooling could occur, as well as an addition of moisture, and all this could bring these passing winds into a stabilized route, and have a calming effect on the whole downstream process, which could otherwise build to become a hurricane. The changes in weather caused by the building of NAWAPA will in turn impact the Atlantic system and most likely even the northwestern coast of Africa.

These speculations are only the beginning of the possibilities of increasing our mastery over nature. But these ideas belong to a new era of mankind, an era into which we now must enter.

DESERTEC

This project is called DESERTEC (**Figure 20**). Essentially, the plan was to turn all these little orange squares into solar panels, and to connect them with new windmills on the coasts of Morocco, and take all the electricity that is generated from these systems, and funnel it into Europe. In order to save money on the long high-voltage cables, the designers then decided to leave the electricity to the Africans and get the oil and gas from them instead.

What this will do, from the standpoint of the biosphere, by heating the landmass, and drying the region out further than it already is, is that it could potentially extend the desert, extend the Sahel, and turn the entire continent of Africa and the Middle East into a giant desert furnace. Now this policy is clearly oligarchical and racist. But above all, these effects show the real intention behind it. And it is this intention, this policy, against which people around the world are rebelling right now. Egypt paved the way and other nations are following in its footsteps.

The point is, the conditions of life have become unbearable to these people. Every human being has the right to life, liberty, and the pursuit of happiness. A system that has dictated living conditions to most people on the planet that are unworthy of the dignity of man, and have made life itself on this planet near to impossible, will always collapse, and must now be shaken off.

We have presented the ideas that are necessary to replace the current system. And as far as the inalienable rights of man are concerned, either you are on the side of mankind, or not. The people of Egypt have made their choice. It is now up to you!