

Catastrophic Drought in Brazil Results From Decades of Policy Failures

by Dennis Small

April 11—If it weren't so deadly, it would almost sound like a child's riddle: What country has more water than any nation on the planet, yet is suffering the worst drought in nearly a century?

The answer is Brazil, one of the five members of the BRICS group of nations.

On top of the chronic water shortage that the country's semi-arid Northeast region faces, drought has now struck with a vengeance in southeastern Brazil, the country's most populous and industrialized region—including the 20 million people who live in Greater São Paulo, South America's largest city. The drought is the worst recorded in the last 80-85 years. The rainy season, which is now coming to an end, has not significantly remedied a scarcity that is so bad, that São Paulo water officials are warning that they might soon decide to impose water rationing for as much as five of the seven days of the week.

São Paulo's Cantareira reservoir/dam system, which is still the source of water for 6.5 million of its residents, in mid-March was at 11.9% of total capacity (including the reservoir's "dead" or inactive storage). Large hospitals and water-intensive businesses—those that can—are installing in-house water treatment and recycling centers, and water trucks are proliferating around the city. But the poor do not have the resources to pay for water, and are going thirsty.

There are already reports that large numbers of slum-dwellers in the northern belt of São Paulo, who over the years migrated there largely from the impoverished Northeast, fleeing that area's drought, are now so desperate that they are heading back to the Northeast. As in California, if the crisis is not reversed, it will not be long before we see virtual death marches of millions of hungry and thirsty people on a desperate quest for survival—the intended result of the British Empire's policy of drastic depopulation of the planet.

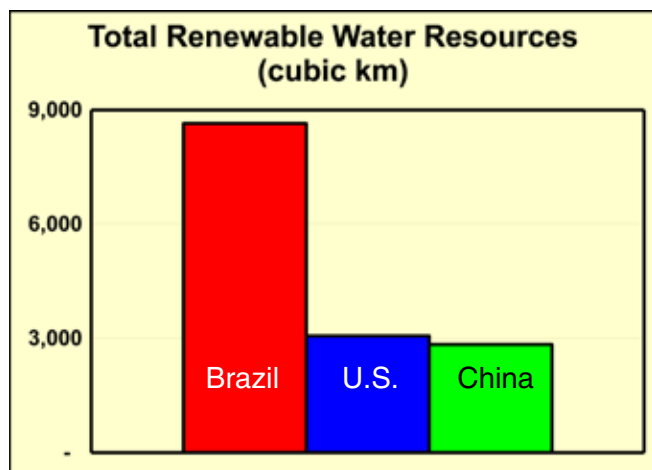
Water, Water Everywhere...

The monstrous absurdity of this situation comes into sharper focus if we consider some elementary parameters of the global water cycle, and its expression in Brazil.

As we document elsewhere in this issue, of the enormous amounts of evaporation of seawater that the Sun continually produces, only 10% falls back down to Earth as precipitation over land. The rest simply rains back down into the oceans, to continue the cycle. To date, all of mankind's advances in water management have concentrated on the 10% available on land. If we look at the planet as a whole, that 10% amounts to some 42,900 cubic kilometers per year of what international agencies such as the UN Food and Agriculture Organization (FAO) call Total Renewable Water Resources (TRWR). But mankind only withdraws, or utilizes, 9% of that amount globally. In other words, we are currently making use of less than 1% of what the biosphere, driven by the Sun, has made potentially available to us as freshwater! That clearly leaves a lot of room for improvement, if we master the science and technology needed to tap into the 99% that is currently out of reach—not to mention using nuclear desalination of seawater to add some of our own new water cycles to those that the biosphere is already providing.

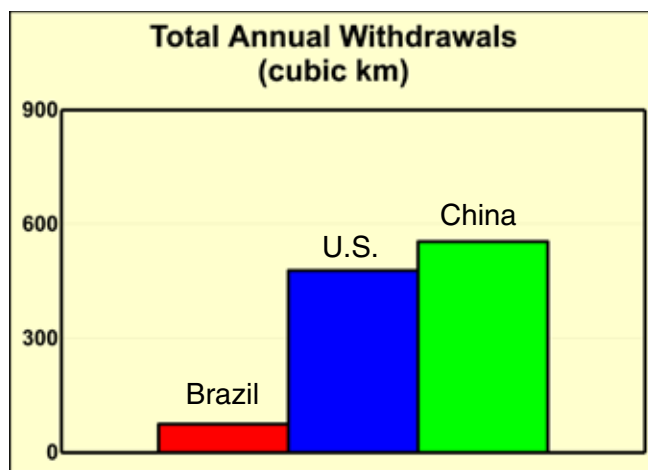
But in Brazil, the contrast is even starker than the planetary averages indicate. Brazil, with a population of 200 million, is home to fully one-fifth of the planet's TRWR—8,600 cubic km per year—and three quarters of that comes from the Amazon River system. The Amazon is not only the longest river in the world; it has a rate of discharge at its mouth of 209,000 cubic meters of water per second, which is more than *five times greater* than the discharge volume of the world's second largest river, the Congo (with 41,200 cubic

FIGURE 1



Source: FAO

FIGURE 2



Source: FAO

meters per second).

So Brazil, which in land mass is slightly larger than the continental United States, has almost three times the available freshwater that the U.S. has (Figure 1). But it withdraws or uses only about one-third as much as the U.S. does (Figure 2). Or, to put it even more starkly, if the planet as a whole is making use of less than 1% of the total freshwater that the biosphere is producing, day-in and day-out, Brazil is using an order of magnitude less than even that planetary average.

Why?

LaRouche’s Track Record in Brazil

“It’s their own damned fault,” Lyndon LaRouche recently commented when informed about the worsening drought in Brazil. “We warned them repeatedly, and outlined the solutions.”

For instance, in October 2001, LaRouche, then a candidate for the Democratic nomination for President for the 2004 elections, was invited to Brazil to address an international conference sponsored by the Brazilian Congress, on the subject of “Brazil and the Free Trade Agreement of the Americas.” Although the intervention of Prince Philip’s World Wildlife Fund (WWF) and other enemies of development led to LaRouche’s agreed-upon security arrangements being denied at the last minute, making it impossible for him to attend in person, LaRouche did send a written presentation to the

conference on “The Future of Brazil’s Agriculture.” Therein, LaRouche stated:

“South America is a continent of vast, largely untapped natural resources. The principal obstacle to the physical development of those resources is the lack of basic economic infrastructure, in categories of transportation, power, and large-scale water management. The objective must be to define the continent as a unified Noösphere, which its inhabitants must manage. The objective of management is not to maintain the Biosphere in its present state, but to raise it to a relatively elevated state of health, which only mankind can do. . . . That is, in fact, Brazil’s only chance for survival as a nation. It is the only chance for that presently imperiled continent as a whole.”

Nine months later, Lyndon and Helga LaRouche were able to travel to Brazil, where they had extensive meetings with the country’s political and scientific elite, and Lyndon LaRouche was named an Honorary Citizen of São Paulo by the city’s authorities. In one high-level public exchange at a June 11, 2002 conference co-sponsored by the Alumni Association of the Superior War College (ADESG) and *EIR*, Lyndon LaRouche responded to comments made by roundtable participants Gen. Oswaldo Muniz Oliva, former director of the Superior War College, and Congressman Marcos Cintra, as follows:

“Now, you take a country like Brazil. Brazil has vast natural resources. . . . The future of Brazil lies in

development of its potential resources, in management of its resources, including the vast water resources. The Amazon system is a vast resource, a vast power resource. It's also probably more valuable as a resource for biological development, and transformation of the Biosphere, than it is as an energy source, because the long-term objective is to meet that kind of challenge. . . . The question of value lies in what the human mind is able to develop, which will transform man's relationship to nature, in the sense of the Noösphere, and thus increase not only man's condition in life; but if we can take the entire population and educate them on university levels to the age of 25, and shift our employment from low-technology to high-technology employment, and scientific employment, then we will have produced true value which our descendants will bless us for."

It's the Noösphere's Turn

LaRouche's policy recommendations registered in Brazil—but they were not acted on over the intervening dozen years, largely due to massive international pressure from the collapsing trans-Atlantic financial system and its hit-men, including in the Green movement, complemented by a specifically Brazilian penchant for foolhardy "pragmatism" and "not rocking the boat." However, the world today has changed: As a member of the BRICS, and with the global leadership provided by China in the areas of water management and space sciences, Brazil is finally in a position to implement such policies. Among the great projects to be undertaken by Brazil, its South American neighbors, and the BRICS more broadly, are:

- First and foremost, develop entirely new science and technologies to gain access to the full water cycle. Brazil should participate fully in international research and demonstration projects involving atmospheric ionization, including research on solar and galactic factors in cloud formation, precipitation, and climate changes more generally. The enormous photosynthetic efficiency that the biosphere displays in the Amazon region, could prove a useful laboratory for man's discovery of related universal physical principles.

To this end, Brazil has a significant aerospace sector which must be fully developed with its BRICS and other partners, including expanding Brazil's Alcantara space launch center on the northern Atlantic coast—the

closest launching base to the equator, which makes launches cheaper and more efficient than from other sites.

- Vastly expand nuclear energy production in Brazil, including for use in dozens of nuclear desalination plants to be built along Brazil's extensive coastline. As noted above, nuclear desalination adds an entirely new, man-made freshwater cycle to what the Biosphere is already doing. Brazil currently has two functioning nuclear power plants, Angra I and Angra II, but they produce only 3% of the nation's electricity. Fully 75% is now produced by hydroelectric plants, which is a massive vulnerability under conditions of drought such as those that Brazil is now experiencing. Because of the foolish failure to launch a crash nuclear program decades ago, the country now faces the nightmare scenario of the drought causing a shortage of both water and of electricity.

A proper policy would reverse the proportions, and have nuclear providing 70-75% of the country's energy requirements, as it does in France, which would reduce Brazil's dependence on hydroelectricity as well as make it possible to use nuclear for desalination.

- Interconnect the three great river systems of South America: the Amazon, the Orinoco, and the Rio de la Plata. This project, which dates back to Alexander von Humboldt's proposals in the 19th Century, would allow for continuous inland water transportation connecting every nation of South America (with the exception of Chile), and also open up options for large-scale water transfers from the central Amazon basin to the southeast of Brazil and Argentina. This area is the continent's scientific and industrial heartland, where every cubic meter of water consumed is far more productive, in terms of work performed, than a seemingly equivalent cubic meter of water in the Amazon.

- Complete the Great Waterway, an inland waterway already partially constructed, linking Brazil's highly productive Cerrado savannah with Bolivia, Paraguay, Argentina, and Uruguay, on its way to the South Atlantic Ocean,

In short, Brazil is a place where the Biosphere is already doing a substantial amount of productive work. But it is high time for the Noösphere, man's creative potential, to now do what it alone can do, beginning with policies and actions by the BRICS.

The New Silk Road Becomes The World Land-Bridge

The BRICS countries have a strategy to prevent war and economic catastrophe. It's time for the rest of the world to join!

This 374-page report is a road-map to the New World Economic Order that Lyndon and Helga LaRouche have championed for over 20 years. This path is currently being charted by the nations of the BRICS (Brazil, Russia, India, China, and South Africa), which are leading a dynamic of global optimism toward real economic development, complete with new credit institutions and major high-technology projects for uplifting all mankind.

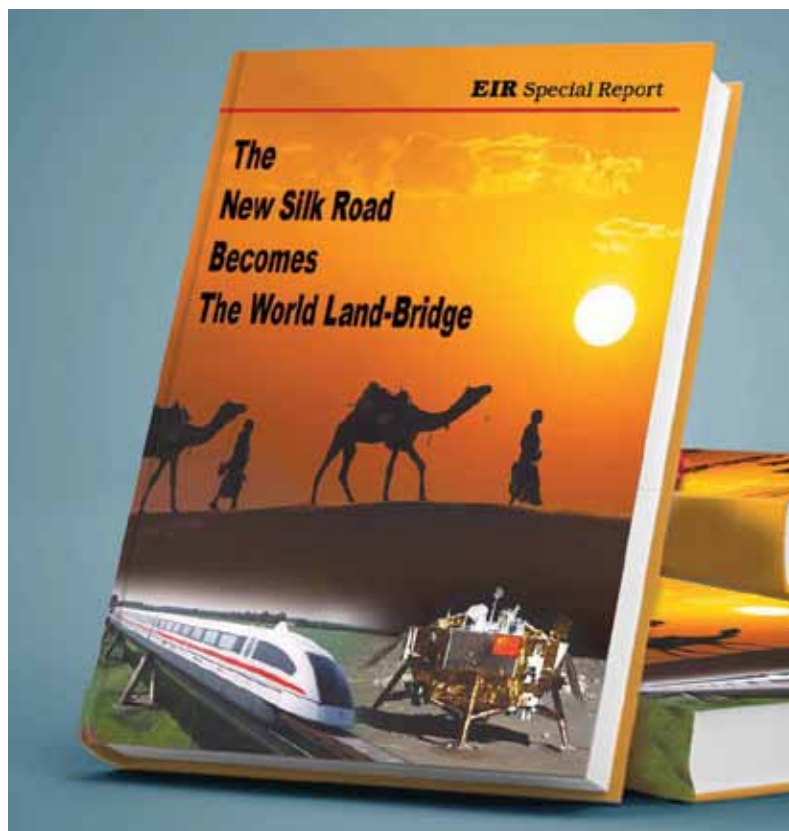
Includes:

Introduction by Helga Zepp-LaRouche, "The New Silk Road Leads to the Future of Mankind!"

The metrics of progress, with emphasis on the scientific principles required for survival of mankind: nuclear power and desalination; the fusion power economy; solving the water crisis. Detailed maps show what has been accomplished and what has not, since Zepp-LaRouche first addressed a Beijing conference on the Eurasian Land-Bridge in 1996.

The three keystone nations: China, the core nation of the New Silk Road; Russia's mission in North Central Eurasia and the Arctic; India prepares to take on its legacy of leadership.

Other Regions: The potential contributions of Southwest, Central, and Southeast Asia; Australia as a driver for Pacific Development; Europe, the western pole of the New Silk Road; Africa—the Test for Global Progress; bringing the Western Hemisphere on board; the LaRouches' 40-year fight for international development.



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