Industrialize Africa as a moral imperative

During the past decades of famine and genocide in Africa, Lyndon LaRouche and *EIR* have stood alone in proposing a comprehensive program to not only save the population of Africa, but bring it up to and beyond peak American living standards of the 1970s. Africa represents the moral test for our civilization. Had the programs for Africa proposed by LaRouche since 1974 been implemented, none of the disasters since in Africa, including the AIDS epidemic, need have occurred. All the tools are available for reversing this situation. Africa has a surfeit of raw materials and plentiful water resources, and abundant arable land. It must now be put to use for the benefit of the continent's people.

Rail for industry, not looting

Existing rail in Africa is still concentrated on the coast, where the colonial powers first established such routes to ship out raw materials and slave labor—but to ship nothing in. The population generally lacks the necessary transportation for economic activity (**Map 17**).

British policy in Africa was to run a railroad as a method of conquest from Cairo to the Cape of Good Hope, to control territory and to prevent other development. The French policy starting in the 1870s was to attempt development by running a railroad from Dakar in Senegal, to Djibouti in East Africa, a sub-Sahel rail line, which would run through Nigeria, Chad, across Sudan, and across Ethiopia to Djibouti.

When the British threatened to go to war with France to stop the east-west line, a French traitor, Théophile Delcassé, ordered the French to surrender to the British at Fashoda, and from that point on, the French rail project was abandoned.

To this day, Africa's basic transcontinental rail lines have never been built. The east-west trunk line from Dakar to Djibouti was never built. Entire sections of the Cape to Cairo railroad have collapsed due to regional wars and disrepair. The present average track-density of 700 kilometers per million inhabitants in Europe compares with 150 km per million inhabitants in Africa. This comparison becomes even less favorable when one considers that lines in the industrial countries consist of two or more tracks, while, as a rule, in Africa they are only single track. The resulting contrast between 1,400 km per million inhabitants in Europe and 150 km in Africa illustrates the size of the gap which has to be closed.

New transcontinental routes must be added and all lines upgraded. The first problem to be solved is that of different gauges. Most current track is narrow "Imperial Gauge," cheaper than the broader ones, but much less efficient. Africa's future railway network will be 300-500,000 km in length, taking European transport-density standards of 700 km railway network per million inhabitants as a base. Compared to that, the present 45,000 km is meager; it should be converted to international standard gauge and then reconverted for high-speed rail.

Intercontinental grid

An interconnected continental rail network must be built. Regions far from the coasts and landlocked countries will obtain effective connections to the ports, and thus to the world markets; international lines will connect individual national networks to each other (**Map 18**). Africa must have continuous north-south and east-west connections, and be connected as a continent with Europe and Asia, which connections include:

A **Gibraltar Tunnel** will allow rail transport from western Europe to Cape Town, and connections with the Arab world will exist via Egypt to eastern Europe and Asia.

A **West Africa Line:** Senegal-Mali (Dakar-Kayes); Ivory Coast (Abidjan-Ferkessédougou); Cameroon (Douala-Yaoundé).

A **Central Africa Line:** Zaire (Banana-Kinshasa).

An **East Africa Line:** Sudan (Port Sudan-Khartoum); Kenya-Uganda (Mombasa-Kampala); Ethiopia (Djibouti-Adis Abeba); Tanzania (Dar es Salaam-Mbeya); Mozambique-Zambia (Beira-Lusaka); Mozambique-Zimbabwe (Maputo-Harare).

Newly constructed stretches will have the function of:

1) Developing further access to agro-nuplexes (agricultural regions developed around a nuclear power plant, which provides desalinated water for intensive agriculture and industry) and connecting them with surrounding regions. This includes the following railroad projects:

West Africa: Mali (Bamako-Mopti-Gao); Mali-Niger (Gao-Niamey); Togo-Upper Volta (Blitta-Niamey); Ivory Coast (San Pédro-Odienné); Cameroon-Central African Republic (Yaoundé-Bangui); Trans-Sahelian (Bamako-Nyala).

Central Africa: Sudan-Zaire (Wau-Kindu); Angola-Zaire (Malanje-Kananga); Angola (Malanje-Dilolo).

East Africa: Sudan (Sennar-Juba); Uganda-Rwanda-Tanzania (Lira-Kigali-Mpanda); Sudan-Ethiopia (Roseires-Adis Abeba); Ethiopia (Asmera-Adis Abeba); Trans-East African (Nairobi-Quelimane).

2) Some lines will open additional ports for inland regions, such as the Freetown (Liberia), Kankan (Guinea) line to Bamako (Mali) in West Africa, and, in East Africa, the connection of Tenke (Zaire) and the port of Mtwara in Tanza-

nia, to be developed. Zambia-Malawi will be connected to Nacala with the Cuamba-Salima-Ndola line.

3) The remaining large projects of this period will aim at providing industrial nuplexes with trans-regional railway connections. This means the partial construction of the **West Africa Coast Line,** the construction of the **Atlantic Line** from Matadi to Lubango, construction of the already-projected railway from Marrakesh to Laâyoune, and the connection Nouadhibou-St. Louis.

New lakes and rivers

Africa boasts some of the most outstanding "natural food belts" on the globe. The decline of food output is the result of deliberate blockage, by international financial agencies, of agricultural infrastructure and technology development. The low yields in Africa directly reflect the low inputs per hectare—fertilizer, pesticides, mechanization, and especially water for irrigation.

The Horn of Africa, the Nile Valley, and many other parts of Saharan and sub-Saharan Africa are suffering the lack of water. Water is also urgently needed for urban areas for industrial and domestic use in populated areas, while huge flows are dumped unused into the sea by undeveloped rivers such as the Zaire (Congo), second in volume only to the Amazon worldwide. The existing major rivers, and the proposed new lakes and waterways which must be created, are shown in **Map 19.**

Most immediately, damming part of the Zaire River would create a **Central African lake.** From this could be easily created river and irrigation projects to bring water and inland transport to the dry regions to the north and south of the Zaire River.

Construction of a **Jonglei Canal** in Sudan could increase the flow of the Nile by 5%. In southeastern Sudan, where the upper White Nile River rises, before joining the Blue Nile and flowing on as the Nile River into Egypt, there are extensive marshy areas known as the Sudd. Construction of a channel from Jonglei, at the swamp, downwater to Malakal, and construction of a canal system, would regulate the swamps of southern Sudan, where large quantities of water are now lost by evaporation. Much of this water would be conserved, and the flow of the White Nile increased. Hundreds of thousands of acres of prime farmland would be created in the process in Sudan.

The Jonglei project was started, then halted because of funding problems and the obstructionism of the ecology movement, which placed preserving "wetlands" ahead of human development.

Underground water can be much better utilized. In 1984, satellite overflights of the Mideast and North Africa, and use of the "Big Camera" infrared sensing from Itek Optical Corp., confirmed the location of significant bodies of underground water, whose existence was previously known only in part. The satellite data give only the location; the depth, quality, and size of the water deposits must be confirmed by on-site hydrological measurements.

Subsequent tests show quantities of underground water in the western Egyptian desert that could provide freshwater for 50 years of agriculture. One proposal is to undertake the construction of strings of oases, forming corridors of agriculture and settlement, and converting the sands of the desert into sod. The siting and archeological features of these water deposits indicate the past existence of rivers flowing northward into the Mediterranean Sea from highlands in Central Africa.

In the western Sahara there are at present extensive underground flows of water, whose direction and quantities could be programmed for use, and for re-charging in the process of greening the desert. Libya's "Great Man-Made River" water tunnel, for example, is shown on **Map 19.**

Africa needs more people

The transcontinental rail and priority water projects combined show the vast potential for this huge continent. All such projects, combined with nuclear-powered development complexes, would be the basis for billions more people to live in Africa (**Map 20**).

In the sub-Sahara region, to begin the roll-back of the desert, a particularly strategic project is the reconstruction of Lake Chad, which has been destroyed by drought. Lake Chad is in a strategic position for Africa as a whole, situated at the crossroads of the largest rail axes between west and east (from Dakar to Djibouti) and from north to south (Tunis to the Cape of Good Hope).

If expanded, Lake Chad could give rise to a trans-Sahara canal to the Mediterranean.

Lake Chad has lost over 90% of its surface area of open water, going from 22,000 km^2 before 1970 to less than 2,000 km^2. This loss corresponds to 15 years of continual drought. Economically, the results have been dramatic: loss of exploitable land areas, inability to graze herds, soil erosion, and famine.

A study of river supply from the existing inflow of the Chari and Logone rivers and rainfall shows that a critical threshold which would allow a return to the lake's former size, could be reached if a total inflow of 50 billion m^3 per year could be achieved.

This can be done by diverting only one-third of the supply from the massive Ubangi River, which currently flows into the Zaire, most of which empties unused into the sea. Pumping conduits over the 200 km that separates the Chari-Logone river basin and the Zaire River basin will allow this. This presumes the creation of one (or several) weirs upstream from the town of Bangui, Central African Republic, and the creation of powered pumping units. These pumps should be supplied by nuclear energy.