Ibero-America and The World Land-Bridge

by Dennis Small

The Eurasian Land-Bridge is the most ambitious infrastructure project that mankind has undertaken to date. Four billion people in more than 20 European and Asian countries—that is to say, the majority of humanity—will benefit from this great project. Its main feature is some 27,000 km of rail lines that connect Chinese and Russian ports on the Pacific, with European ports on the Atlantic. In the design first presented by U.S. Presidential pre-candidate Lyndon LaRouche, these thousands of kilometers of rail lines would actually be the center of 100-kilometer-wide development corridors, which would bring industrialization and advanced technology to the furthest corners of the planet.

Today, there are already three functioning corridors (see **Figure 1**):

A. **The Northern Corridor,** which connects the Russian port of Vladivostok in the east, with Moscow, Berlin and Rotterdam. This route, also known as the Trans-Siberian Railroad, is already in service.

B. **The Central Corridor,** which runs from Lianyungang, China to Tashkent, Uzbekistan; from there, a northern branch runs through Moscow, Berlin, and Rotterdam, and a southern one goes to Tehran, Istanbul, Berlin, and Rotterdam. This route is also open (the southern branch, only since May 1996).

C. **The Southern Corridor,** which will connect Shanghai to New Delhi, and extend from there to Tehran, Istanbul, Berlin, and Rotterdam. This route is not yet open, as two key connecting stretches remain to be constructed, as can be seen in the map.

Unbuilt Spans of the Land-Bridge

These infrastructure projects are not only helping to develop the nations of that region; they are also the locomotive for world economic transformation. They are the alternative to the dying system of the International Monetary Fund, an alternative which all of the nations of Ibero-America, and Africa, in particular, must embrace, both politically and economically, if they are to survive.

In Figure 1, one can also see what remains to be constructed, to turn the Eurasian Land-Bridge into a true World Land-Bridge; especially obvious, is the lack of rail infrastructure in Africa and Ibero-America. Shown circled are the principal bottlenecks that have to be overcome, in order to join the continents in a single, integrated, global network. These are:

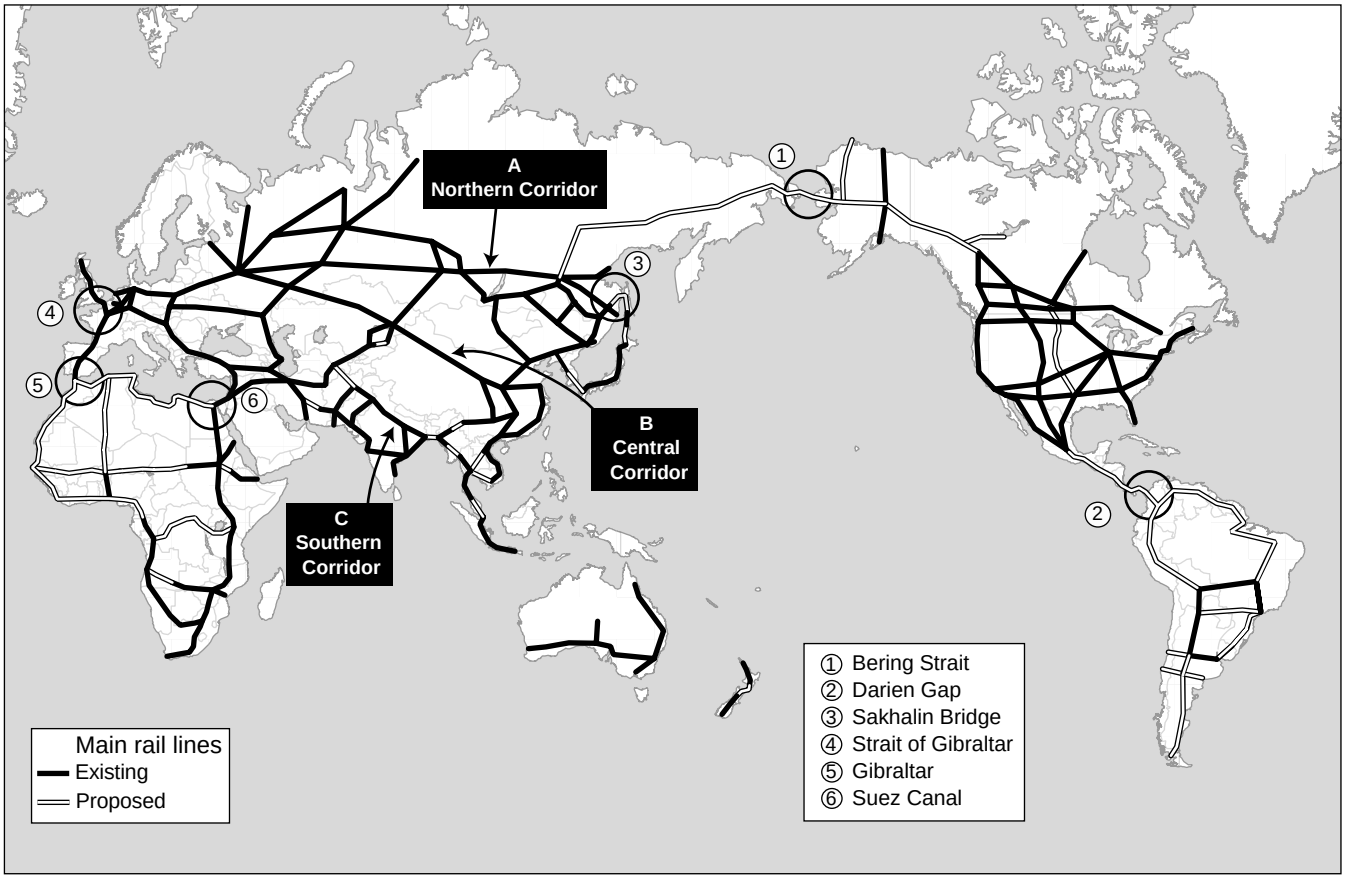
1. **The Bering Strait:** This is perhaps the nodal point of the entire world network, since it is here that the world's two hemispheres will have to be linked, through a bi-national rail project between the United States and Russia. There are already studies which show the feasibility of building a tunnel under the Bering Strait, which would be approximately 85 km long. Fortunately, there are two islands in the middle of the Strait—Big Diomede and Little Diomede—that can serve as stepping stones, and which would reduce the longest span of the tunnel to only 35 km.

For purposes of comparison, consider that the tunnel opened in 1994 under the English Channel between France and England—known as the Chunnel—is 50 km long; that is, it is longer than the longest span of the Bering Strait tunnel. It is estimated that the Bering Strait tunnel would have a maximum depth of 54 meters, while the Chunnel is slightly less, at 45 meters depth. As for the difficulty of construction, engineers who have studied the matter, believe that the ground under the Bering Strait is actually better suited for tunnel construction than that under the English Channel.

It is true that the weather in the Bering Strait is not very hospitable, but this is nothing that modern engineering cannot overcome. With this project, the world would move definitively from the era of the U.S.-Russia Cold War, to what we might dub the era of the U.S.-Russia Cold Railroad.

2. **The Darien Gap:** This is a region of some 100 kilometers length, covering the border region between Colombia and Panama. It is generally considered to be impenetrable (although, if truth be told, it is today overrun by the FARC narco-terrorists, among others). The Pan-American Highway, for example, extends down through all of Central America and Panama, until it reaches the Darien Gap, and goes no further. Environmentalists and other pessimists have insisted that, first of all, it is technically impossible to build a highway or railway there, because "the jungle will swallow it up." Second, they say, even if it were possible, it should not be

FIGURE 1
World Land-Bridge



built, because the Gap is a "natural barrier" between North and South America, which man should not breach.

Both problems can, and should, be overcome. If not, there is no way, geo-economically to link South America with the Eurasian Land-Bridge. The technical problem is that the region is swampy, with very heavy annual rainfall. Any highway built in the ordinary fashion, sinks into the mud with each rainy season—which lasts the better part of the year. Inhabitants of the region have learned that the only way to build a road there is to first lay down *tree trunks*, and then build the road on top of them. The trunks then float when the solid land turns into marsh. This principle should be applied to building a semi-floating Pan-American railroad and highway on pontoons, for a span of about 100 km, which would open up the Darien Gap. Brazil could supply technology it has developed for building highways through the Amazon jungle, under very similar conditions.

This new east-west route along the Colombia-Panama border should be joined to another great infrastructure project on the Colombian side of the border, which would run north-south: the *Atrato-Truandó Canal.* This canal, some 80 km in length, would use two semi-navigable rivers in the region—the Atrato and the Truandó—to create a sea-level canal between the Atlantic and Pacific Oceans, through which ships larger than 65,000 tons—the current limit on the Panama Canal—would be able to travel.

In this way, what is today perhaps the most inhospitable region of the Western Hemisphere, would be turned into a unique world crossroads for north-south and east-west transport and commerce. Another important advantage of these two projects is that they would establish the basis for uniting Mexico and Central America with South America, not only politically but *geo-economically*, enabling a Common Market for all of Ibero-America to be forged.

In its turn, Ibero-America must join with the United States and Canada around the construction of a railroad network that would connect all of the Americas with the Eurasian Land-Bridge, as shown in Figure 1. Does the politi-

cal basis exist for constructing such economic links? The answer is yes.

Unlike Great Britain and its colonial system, the United States was founded by Benjamin Franklin, George Washington, and others on the basis of establishing a community of interests with the sovereign nations of the South, around the industrial development of all nations. In the 19th Century, Abraham Lincoln revived this orientation; in the 20th Century, Franklin Delano Roosevelt did the same; and today, Lyndon LaRouche represents that same tradition within the United States.

3. **Sakhalin Bridge:** Very soon, Japan—the second-largest economy in the world—will be directly linked to the Eurasian Land-Bridge. At the end of 2001, the Russian government announced that, in a matter of months, they would begin construction of an 8 km bridge between continental Russia and the island of Sakhalin. The Japanese island of Hokkaido, at the same time, is only 40 kilometers from the southern tip of Sakhalin, and there are already proposals to build a bridge that would connect them. Hokkaido, in turn, is already linked with Honshu, Japan's largest island, through the 54 km Seikan tunnel, the longest underwater tunnel in the world.

It is estimated that, once these projects are finished, rail transport from Tokyo to Rotterdam would take only nine days to cover a distance of 13,600 km. Today, the maritime route between these same two cities is 20,000 km, and takes some 26 days. The implications of this for the economic productivity of all the nations along the route, are clear.

4. **The English Channel:** The Channel Tunnel connecting France and England was opened to both car and rail traffic in 1994, and it is an engineering marvel that gives us an idea of what can be achieved in the rest of the world, once the *political* obstacles to such enterprises are overcome.

5. **The Strait of Gibraltar:** Here only 14 kilometers separate Europe from Africa. It is crucial to build a tunnel here, so that Africa can become a part of the World Land-Bridge. This is technically feasible, although the depth of the water at this point is such (some 300 meters) that the length of the tunnel would have to be 50 km or more, in order to achieve such depths.

6. **The Suez Canal:** In November 2001, two 1 km-long bridges crossing the Suez Canal were inaugurated, providing Africa a rail link with the Middle East and Africa.

Physical-Economic Requirements

Figure 1 gives us a clear idea of how the continents of the planet will form a single continuous continental land-mass, connected by a great spiral of railroads, a spiral consisting of *development corridors* some 100 kilometers wide along each of the routes. As Lyndon LaRouche has explained, such an approach would inaugurate a new era in the history of humanity. Until the present time, the great civilizations have all been fundamentally maritime or riparian, and population and economic centers have generally been concentrated along the coasts or in river valleys. But with the World Land-Bridge, the *inner space* of the different continents would become the new frontiers of development.

TABLE 1
The World Land-Bridge

Continent	Double-Track Railroads To Be Built (kilometers)	Steel Required (millions of tons)	Cement Required (millions of tons)
Ibero-America	25,800	11.8	8.5
Africa	25,000	11.6	8.3
Asia	7,750	3.6	2.6
North America	5,100	2.4	1.7
World total	63,650	29.2	21.0
Total world production		**847**	**1,520**

Source: *EIR.*

Apart from the main bottlenecks we have indicated, there are many thousands of kilometers of rail that will have to be laid, to establish a true World Land-Bridge. In **Table 1,** we can see in quantitative terms what is otherwise evident from Figure 1: that the two continents most lacking in railroad infrastructure are Africa and Ibero-America. If we consider only the main trunk lines we have indicated—which will function like a kind of "skeleton" of the World Land-Bridge—we have the results as seen in Table 1.

Many will immediately wonder where the "money" to finance such enormous projects will come from. This is the wrong question to ask, at least in the form that the great majority of people would ask it. Credit, whether national or international, is an instrument created by sovereign governments, and with sufficient political will, it can be generated.

The more important question is: Does the physical-economic capacity exist to build these projects? Where is the steel, the cement, and so forth, that will be needed, going to come from?

In Table 1 we have applied parameters developed by engineers to break down the steel and cement requirements, for constructing the 63,650 km of rail that will make up the "skeleton" of the World Land-Bridge. These totals are then compared with current world production. In the case of steel, the 29.4 million tons required for double-tracked corridors, would represent about 3.4% of world annual production (847 million tons). In the case of cement, the 21 million tons required are 1.4% of world annual production (1,520 million tons). In **Table 2,** we present annual production of steel and cement in a number of major producing nations.

FIGURE 2

Schematic Representation of Main Rail Lines in the Americas

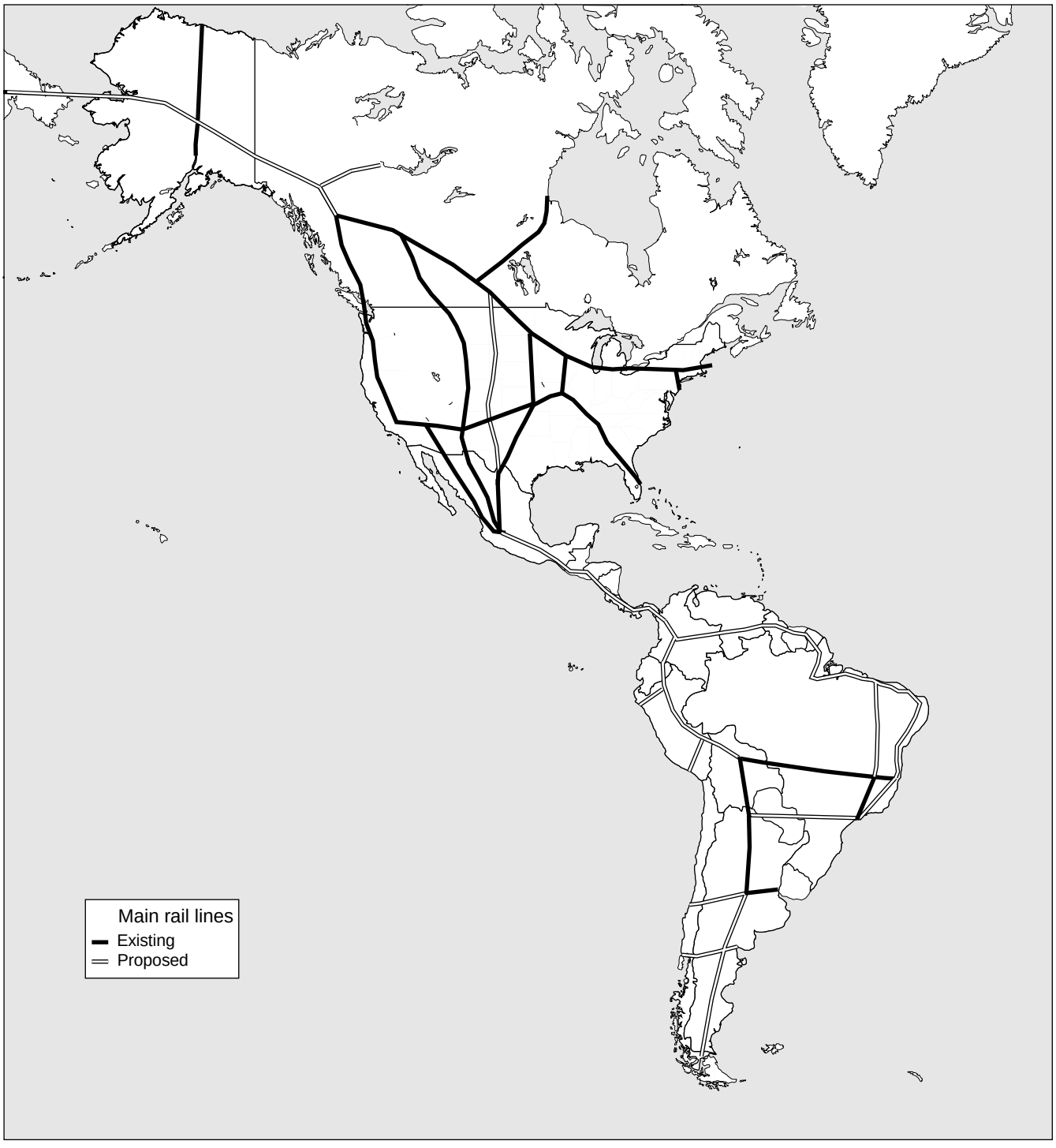


FIGURE 3

South America: Great Rail Projects

TABLE 2
Production of Steel and Cement

	Steel (million of tons)	Cement (million of tons)
China	141	520
Japan	103	80
U.S.	90	87
Russia	58	27
Brazil	27	43
Mexico	13	30
Argentina	4	7
Colombia	1	9
World total	**847**	**1,520**

Sources: www.worldsteel.org and www.global-cement.dk.

This addresses the *skeleton* of the World Land-Bridge. But in Ibero-America, as in the other continents, it will be necessary to build a series of secondary regional railroads, as well as domestic rail networks in each of the countries. We estimate that the total number of rail kilometers required will be about four times what we have denominated as the "skeleton," that is, some 100,000 new kilometers of rail in Ibero-America. Today, the nations of Ibero-America already have about 100,000 kilometers of existing rail lines, so that the total would reach some 200,000 km. This would provide for a density of some 10 km of rail lines for every square kilometer of territory, on average, in Ibero-America. For purposes of comparison, consider that the corresponding rail density in the United States today is 30 km of rail for every square kilometer of land.

Ibero-America: It Can Be Done

Figure 2 presents a schematic picture of the main rail networks—both existing and proposed—in the Americas, according to the design of U.S. engineering specialist Hal Cooper. What is known as the "Al-Can Railroad," which extends from Alaska to Canada, is already under discussion. By building that span, the U.S. rail network will be ready to link up with the Eurasian Land-Bridge, through the Bering Strait.

Although our map shows that there are three rail lines connecting the United States with Mexico City, in real economic terms that is not true; the three lines are ancient and dilapidated, and require major investments to bring them up to international standards.

Moving further south, a Pan-American Railroad must be built to run the length of Central America, through the Darien Gap and into Colombia.

Here we can clearly see how Colombia can be either a chokepoint or a linchpin: either obstructing, or enabling the physical integration of Ibero-America, as well as its link with the United States and, from there, with the Eurasian Land-Bridge. Due to the circumstances of its unique geographical location, it is from Colombia that the various main rail corridors will extend (see **Figure 3**):

- The western corridor, which will run parallel to the Pacific Coast;
- The central corridor, which will connect Bogotá, Colombia; Saramirisa, Peru; Santa Cruz, Bolivia; and thence, by two branches, São Paulo, Brazil, and Buenos Aires, Argentina;
- The western corridor, which will unite Colombia, Venezuela, Guyana, Surinam, and French Guiana, and will extend down the Atlantic Coast, crossing Brazil until arriving at Buenos Aires.

Once this rail network is built, a train could be boarded in São Paulo, Brazil, for example, and ridden over 20,000 km of continuous travel to Berlin! This is the distance of present-day maritime travel between Japan and Berlin.

Besides the Darien Gap, the other major technical difficulty in achieving the physical integration of the continent, will be that of building rail lines to cross the Andes Mountains. The lowest elevation of the Andes is in Saramirisa, Peru, with an altitude of about 2,500 meters above sea level. This would, logically, be one of the points where the east-west connection could be made. But it will also be necessary to build inter-oceanic railways further south, both in Peru and in Bolivia, where the altitude of the passes is some 3,000 or even 3,500 meters.

Will it be possible? Of course it will. Today, China is building a 1,118 km railroad that connects China's western province of Xinjiang, with Lhasa, the capital of the neighboring province, Tibet, passing through what is known as "the Roof of the World." Some 960 km, or 85% of the total route, is at elevations of more than 4,000 meters, and in some places surpasses 5,000 meters. Half of the project has already been constructed!

Furthermore, in Peru itself, there have been viable projects for crossing the Andes by railroad since the middle of the 19th Century. As demonstrated in a soon-to-be-published historic research study by a LaRouche associate in Peru, Luis Vásquez, the Peruvian government of Manuel Pardo (1872-76), in alliance with Abraham Lincoln's networks in the United States, launched just such a railway project. Their enemies sarcastically dubbed it "the Train to the Moon." But Pardo already knew, in 1860, the enormous role to be played by railroad infrastructure:

"Join the three central lines by means of the fourth, and decide if in ten years, a revolution will not have occurred in Peru, a revolution at once both physical and moral, because the locomotive—which, like magic, changes the face of the country through which it passes—also civilizes. And that is perhaps its main advantage: populations are put into contact. It does more than civilize; it educates. All the primary schools of Peru could not teach in a century, what the locomotive could teach them in ten years."