

CENTRAL ASIA

# End Geopolitics With ‘Silk Road’ Development Plans

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*Reprinted from EIR's Special Report, "The New Silk Road Becomes the World Land-Bridge" (November 2014).*

October 2014

Central Asia, the geographic midway of the Old and New Silk Roads, has also been dead center in the Arc of Crisis—the target zone for a geo-strategy of strife in Eurasia, conducted by the decayed British Empire. The very name, “Arc of Crisis,” was coined in the 1970s by Zbigniew Brzezinski, taking from the concepts of British intelligence operative Bernard Lewis, to refer to the region stretching from Egypt, across Central Asia, to the Indian Subcontinent, for warfare power-plays in a renewal of the Great Game of 19th-Century British Imperialism. For this and related reasons, Central Asia today ranks at the top, with Southwest Asia and Africa, of world priorities for deliberate, collaborative intervention to end the destruction, rebuild, and foster peace through development.

The physical geography itself is a challenge, including the world's highest mountain ranges, advancing deserts, and recession of the Aral Sea. But the biggest challenge is the legacy of deadly geopolitics.

If geopolitics can be defeated in Central Asia, it can be defeated anywhere.

We are now at a breakpoint. By the beginning of 2015, the pull-out of U.S. troops from Afghanistan is to occur, after a 12-years-long NATO operation, whose character was textbook “Great Game” devastation. The nation of 31 million people is in shambles. Because of the modern continuation of the British East India Company's 19th-Century opium policy, Afghanistan today accounts for 90% of the world's output of opium poppy, and much hashish. The area of poppy cultivation has risen in Afghanistan

FIGURE 1

## Central Asia—Political Boundaries, Topography



*Bodies of water other than the Caspian Sea are colored dark blue on the map. In Kazakhstan and northwest Uzbekistan are the remains of the Aral Sea.*

from 8,000 hectares (ha) (roughly 18,760 acres) in 2001 up to 209,000 ha (516,230 acres) in 2013.

Nor has the problem remained within Afghanistan. Transit routes for the drugs into Russia and Europe, and terrorist gangs that thrive on the drug and arms trade, have permeated Central Asia as a whole, exacerbating the tensions created by underdevelopment and poverty.

Russia's Federal Drug Control Service director Victor Ivanov has called for international cooperation on an all-out "alternative development" program in Afghanistan and Central Asia as a whole, to completely end the "planetary crisis" of drug production. A Russian program to accomplish this through "crash industrialization" was prepared for the June 2014 Group of Eight meeting in Sochi, Russia (see Appendix to this Chapter). But the meeting was scuttled by London and the Obama Administration. Now the Eurasian BRICS nations—Russia, China, and India—are themselves taking the lead to back development in Central Asia.

The BRICS members' commitment to develop this region (**Figure 1**) is embodied in the venue chosen for the inaugural announcement of the Silk Road Eco-

nomics Belt (SREB), which Chinese President Xi Jinping made Sept. 7, 2013 at Nazarbayev University in Astana, Kazakhstan. In the latest expression of the expanding BRICS involvement with Central Asia's future, Afghanistan's new President Ashraf Ghani Ahmadzai spent four days in Beijing, Oct. 28-31, 2014, where he committed Afghanistan to participate actively in the new SREB; and, in turn, Chinese leaders, including Premier Li Keqiang, announced concrete ways China will help rebuild Afghanistan and the region. "In the past 13 years, the Chinese government has rendered enormous help to Afghanistan, to facilitate its peace and reconstruction process.

That assistance has focussed on projects promoting people's livelihoods, like education, medical services, and water resource exploration," and much more is to come, said the Chinese Ambassador to Afghanistan, Deng Xijun, in an Oct. 28 CCTV interview.

Support for Central Asia security through economic growth also comes from the Shanghai Cooperation Organization (SCO), a regional grouping active since 2001 (members: China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, and Uzbekistan). At the 14th SCO heads of state meeting, Sept. 12, 2014, Chinese President Xi called for full membership for the SCO observer nations: Afghanistan, India, Iran, Mongolia, and Pakistan. SCO also has official dialogue partners: Belarus, Sri Lanka, and Turkey. It is from this activist vantage point for development that key initiatives and impediments can be reviewed in the Central Asia region at large.

## Economic Geography

The current regional population numbers 97.6 millions, with 47.9 millions in the four inner nations of Central Asia—Kyrgyzstan (5.6 million), Tajikistan (8.2



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*The ship graveyard at Moynaq, Uzbekistan, formerly a seaport on the Aral Sea.*

million), Turkmenistan (5.2 million), and Uzbekistan (28.9 million)—plus 17.9 million in Kazakhstan and 31.8 million in Afghanistan. Minus Afghanistan, these countries were formerly republics in the south central part of the Soviet Union; the Soviet administrative boundaries became national ones in the early 1990s, upon independence.

The physical landscape, depicted in **Figure 1**, includes the dramatic mountain ranges in the eastern areas, of the Alai Mountains, Tien Shan, and Pamirs, sloping down westward to the extensive desert plains of the inner Aral Sea Basin and the Caspian Sea. Some of the world's highest peaks are here, including Ismoil Somoni Peak, 7,595 meters (24,590 ft) above sea level, in Tajikistan.

The two major river systems, the Amu Darya and Syr Darya, arise in these mountainous regions, flowing westward to the Aral Sea. Their flow comes from the highlands rainfall, snow, and glacial melt; but the highest mountain ranges are so tall, they block potential precipitation from the monsoonal currents coming from the southeast. Water scarcity is present in many places, except Kyrgyzstan. The shortages have been aggravated by the prevalence of cotton monoculture. Central Asia's cotton industry dates from soaring prices during the U.S. Civil War (when King Cotton was kept off the market), but monoculture intensified in the Soviet period and beyond. The cultivation of cotton—a very thirsty crop—reduced the river flow reaching the Aral

Sea so much, that its volume has declined 75% since 1975.

The mineral and fossil fuel wealth in the region is significant. The underlying sedimentary formations of the western areas have sizable oil and gas deposits. Coal reserves are present in Kazakhstan and elsewhere in the intermontane. Deposits of iron and other ores, and minerals, gold, and uranium are identified, and many are being mined.

Central Asia has been densely settled for more than 2,500 years, with population concentrations in the piedmont of the southeast, and along the river valleys. Agriculture and mining are major areas of economic activity, but in most of

the nations, except Kazakhstan, the poverty level is extremely high. Now, the prospect of new corridors of development, to allow the creation of new, man-made natural resources of water, fertile land, and power sources, opens up a new era for the region.

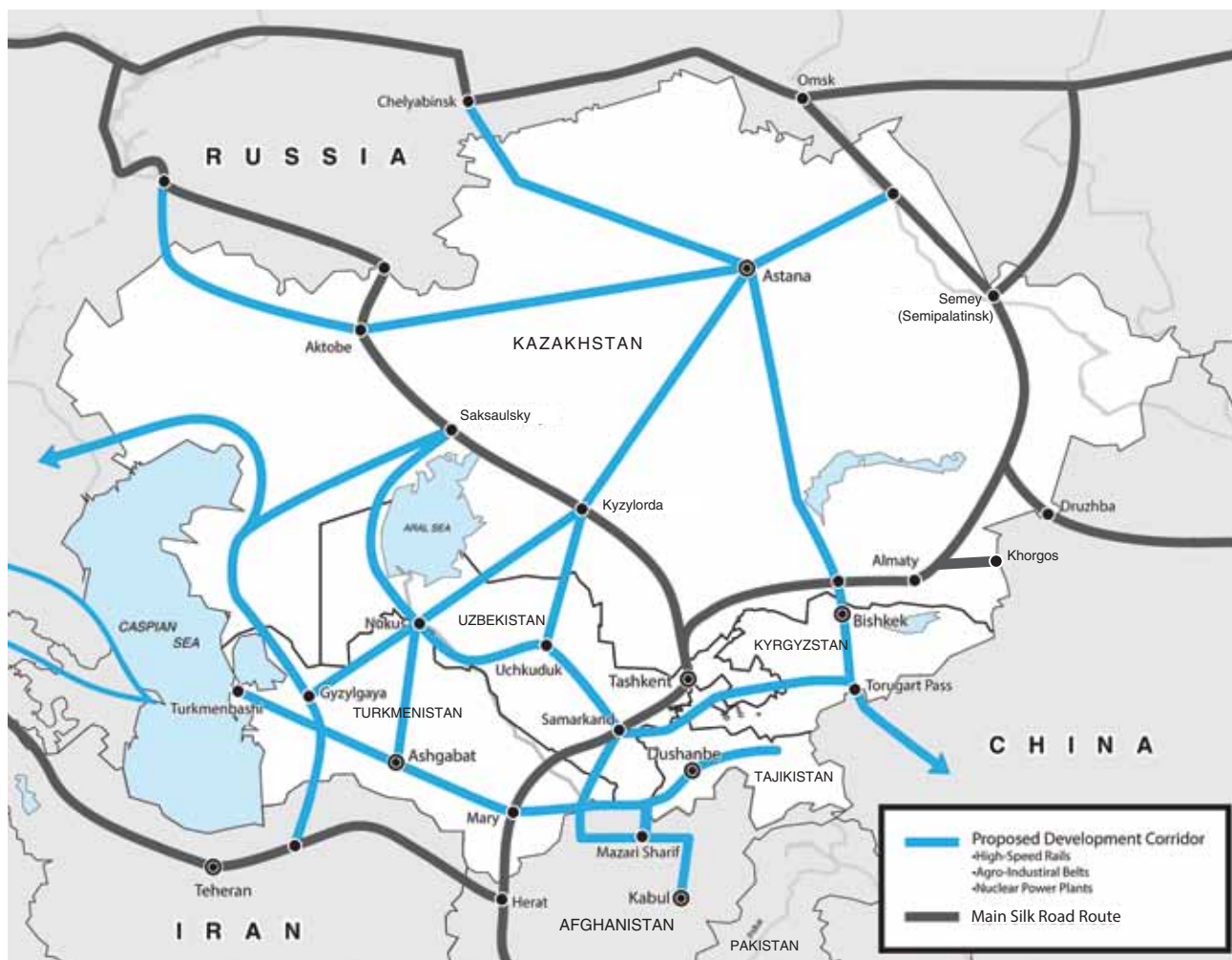
### Rail Corridors and Connectivity

The Central Asia region has a unique role, along with Xinjiang Province in China, as the “traffic hub” of the Eurasian Land-Bridge. The old Silk Road Asian stopovers here are now legendary names—e.g., Samarkand and Tashkent in Uzbekistan and Xi'an in China. But as the new Eurasia-spanning rail corridors come into being, they give rise to potentially new growth-point cities. The challenge is to build nation-serving webs of rail networks and new settlements, to foster overall regional development, not just “stopover” towns, serving through traffic and out-of-region trade.

The concept map in **Figure 2** presents this idea schematically. The black lines indicate the main Eurasian Land-Bridge lines. The Trans-Siberian Railway (TSR) runs across Russia, at the top of the map, through Chelyabinsk and Omsk. Running off the TSR, northwest to southeast, is the line going through Kazakhstan, via Aktobe, Saksaulsky, and Kyzylorda, into Tashkent, thence either southward through Mary in Turkmenistan, to Herat, Afghanistan, and onward to the Arabian Sea coast; or from Tashkent to Almaty, the former capital of Kazakhstan, and thence to China through Xinjiang.

FIGURE 2

## Central Asia—Silk Road Rail Lines and Proposed Regional Development Corridors



Ramtanu Maitra, Asuka Saito/EIR 2014

*In addition to the Trans-Eurasia rail routes of the Silk Road crossing Central Asia, these nations require the development of their own regional rail network, for which key segments are shown here schematically. Some are under way, planned, or intended.*

From Omsk runs another trunk line off the TSR, through Semey (formerly Semipalatinsk) in far eastern Kazakhstan, thence to China, via the border crossing at Druzhba; or southward, via Almaty, through the core central Asian region and to South Asia.

The blue lines show several of the other proposed, planned, or in some cases, under-construction, rail routes that constitute the potential for development corridors for high-speed service, agro-industrial belts, and siting of nuclear power plants for plentiful electricity and desalinating and purifying water.

Several new rail projects stand out as transportation initiatives; what is required is collaboration for an inte-

grated system in this heartland of Eurasia. Even the track gauges pose a problem, but it can be dealt with. Because Central Asia's railroads were built when these nations were part of the Russian Empire and then the Soviet Union, they have the broad gauge of 1,520 mm, while most neighboring countries use the standard gauge of 1,435 mm. In Pakistan, the width is the wide Indian gauge of 1,676 mm. As a result, trains going, for example, between Iran and Turkmenistan, or China and Kazakhstan, or into Pakistan, must change bogies (wheel trucks), or the passengers and goods must transfer to new rail cars. Among the notable new or anticipated Central Asia rail links:



### *North-South*

- Turkmenistan and Kazakhstan have launched a direct railway linking their oil-and-gas-rich Caspian Sea regions, bypassing the former circuitous route through Uzbekistan, and going directly on to Iran. This forms the first phase, scheduled for completion in Winter 2014, of a north-south 1,520 km (945 mi) rail corridor linking Kazakhstan, Turkmenistan, and Iran, which is the spine of the new International North-South Transport Corridor from India to Russia, by sea and rail. Within Iran, construction is under way on key links from the Turkmenistan border to the existing Iranian rail grid entry point at Gorgan, and thence to the coast.

- A short, but critical new rail track into Afghanistan from Uzbekistan, was completed in 2011 by UTY, the state-owned Uzbekistan Railways. The 75 km (47 mi) line connects Hairatan on the Uzbekistan-Afghanistan border to Gur-e Mar, outside of Mazar-i-Sharif in northern Afghanistan, that nation's second largest city. The new line has been important in transport of humanitarian aid as well as commercial merchandise. Formerly, these goods had to be offloaded onto trucks at the border.

### *East-West*

- Kazakhstan, in late 2013, completed a 293 km (183 mi) stretch of rail from Zhetygen (just north of Almaty) to Khorgos at the Chinese border, looping it into its existing national railway, thus opening the second China-Europe link across its territory. As a result, it takes just 15 days for trains carrying all kinds of cargo, to cover the 10,800 km (6,750 mi) route from Chongqing in southern China to Duisburg in Germany's industrial Ruhr region. Khorgos, straddling the Kazakhstan/China border, is now a rapidly expanding land port.

- China is planning a rail link west from the far western Xinjiang city of Kashgar, through the mountains into Kyrgyzstan (Irkeshtam Pass into the Alia Valley), through Tajikistan (Rasht Valley), into Afghanistan (across to its western city Herat), thence to Iran, and westward. This would create yet another band of the Silk Road Economic Belt.

- Tajikistan, Afghanistan, and Turkmenistan agreed in March 2013 to build a 160-km (99.4 mi) rail section across far northern Afghanistan, which will be Tajikistan's first line to several major Eurasian rail routes.

### *National*

- Uzbekistan is expanding its internal rail routes and service, in order to forego using parts of the old Soviet-era lines through neighboring countries. New Uzbek rail projects link cities in its far west directly to the capital, Tashkent, in the east. Previously, rail service was possible only via Turkmenistan. Tashkent is also seeking to link its densely populated part of the Fergana Valley, with the rest of the country, via the Kamchik Pass, thus avoiding transit through Tajikistan.

- Tajikistan and Kyrgyzstan have very few internal rail lines and little service. Tajikistan has only 680 km (420 mi) of track, all of it 1,520 mm broad gauge. The system connects the main urban centers of western Tajikistan with points in neighboring Uzbekistan and Turkmenistan, and soon, Afghanistan. Kyrgyzstan is virtually "rail free." The small bits of rail lines within the nation add up to only about 370 km (230 mi) of 1,520 mm broad gauge track.

The history of this limitation is that, during the Soviet Union period, Kyrgyzstan's Chuy Valley in the north and the Fergana Valley in the south, were endpoints of the rail system in Central Asia. At independence, rail lines that had been built without regard for administrative boundaries, were suddenly in different countries. The dysfunctional railways of these countries are a priority to remedy.

### **Nuclear Power**

A top priority for the region is the provision of plentiful power through nuclear fission, including for large-scale desalination along the Caspian Sea littoral, and at other sites, for recycling and upgrading wastewater, as well as for electrified rail.

None of the four core Central Asian nations operates, or is in the process of building, a nuclear power plant. To their north, Kazakhstan has an active intention to do so. In the past, Kazakhstan had a long-running nuclear facility, including producing desalinated seawater. In 1973, the Soviet Union opened an experimental fast breeder reactor on the Caspian Sea near Aktau, which ran until 1999, when it was decommissioned and taken down. On May 29, 2014, the day on which the Eurasian Economic Union treaty was concluded in Astana, the country's Kazatomprom nuclear corporation signed a memorandum of understanding with Russia's Rosatom, to build a 300 to 1,200 MW nuclear power plant with the water-cooled, water-moderated Russian VVER reactor model, near Kurchatov in far

eastern Kazakhstan. A town with a long nuclear history, named after the Russian physicist Igor Kurchatov, this was a Soviet “closed city,” housing research facilities for the nuclear weapons test site at nearby Semipalatinsk, modern Semey.

Uzbekistan possesses two operational nuclear research reactors. One is outside Tashkent, at the Institute of Nuclear Physics in Ulugbek. In addition to the reactor (a 10 MW VVR-SM), the institute has two cyclotrons, a gamma source facility, a neutron generator, and a radiochemical complex. The other research reactor, a 20 KWt (static) pulse reactor, is operated by owner JSV Foton.

Within the Soviet Union, Uzbekistan provided much of the country’s uranium. The Navoi Mining and Metallurgy Combine operates six in-situ leaching mines, with nine additional mines under development, and five other commercially viable deposits identified. The processed yellowcake is shipped to various countries, including the United States and South Korea. All these installations and activities are useful precursors to building out a full-scale nuclear power platform in the region.

The current profile of energy supply throughout the region, is that certain areas rely on their fossil fuel for electricity, while several areas rely on hydro-power, a legacy of Soviet dam-building for both the energy grid and agricultural water management.

Kazakhstan is the leading oil producer of the region, with output of roughly 1.6 million barrels per day (bbl/day), of which approximately 90% is exported. The first pipeline connecting the Caspian Sea shore oil patch with Xinjiang, China’s westernmost province, is one of the longest in the world, at nearly 2,300 km (1,429 mi).

Turkmenistan possesses the largest known natural gas deposits in central Asia, and among the largest anywhere in the world. It is the main gas exporter in the region. Turkmenistan itself gets almost all its electrical power generation of 4 GW from natural gas. Adjacent Uzbekistan currently produces even more gas (60 billion cubic meters annually) than Turkmenistan, but uses 85% of its output for domestic electricity production, leaving little for export. In fact, Uzbekistan serves as a transit country for gas conveyed from Turkmenistan, on its way to China and Russia. In 2007-2010, the first two lines of the Turkmenistan-China (or Central Asia-China) natural gas pipeline, largely financed by China, were built from the Bagtyyarlyk gas-field area in southeastern Turkmenistan, through Uzbekistan and

Kazakhstan, crossing into China at Khorgos and connecting to China’s second West-East Gas Pipeline. A third pipe on the nearly 2,000 km (1,243 mi) export pipeline started operating in June 2014, and a fourth is planned.

Tajikistan and Kyrgyzstan rely on hydro-power, because they have no substantial developed hydrocarbon deposits, although it is believed that Tajikistan’s Bokhtar field has sizable oil and gas reserves. A regional plan exists on paper to construct the “Central Asia-South Asia” (CASA) electrical transmission line, the CASA-1000, to run Summer-surplus electricity from the dams in Tajikistan and Kyrgyzstan, south to Pakistan and Afghanistan, a distance of 1,173 km (759 miles). There are objections and threats of violence against it along the way, but the technology is realistic.

## **The Power-Water Nexus**

Central Asia is an arid region that grapples with serious constraints related to the water resources necessary for advanced agro-industrial development. However, action on multiple fronts, in a growing economy, can provide for “new” water resources, despite the stark example of the eco-disaster in the Aral Sea Basin. This region is a planetary priority for the earliest application of yet-to-come breakthroughs in knowledge and methods of “rain-making.”

Most of the region’s water comes from the mountain ranges of the upstream nations of Kyrgyzstan and Tajikistan (and to a lesser extent from Afghanistan) channeled to the downstream nations of Kazakhstan, Turkmenistan, and Uzbekistan, mainly through the Amu Darya and Syr Darya rivers, and some lesser rivers. In short, roughly two-thirds of the water resources is generated in the mountains, and two-thirds of that is consumed downstream.

Concern over future patterns of water supply, comes from various weather shifts. For example, the glaciers are shrinking. Between 1957 and 1980, the Central Asian glaciers diminished by about 19%, according to most estimates. The glaciers surrounding Lake Issyk-Kul in Kyrgyzstan shrank by about 8% over this time period.

Technically, however, much of Central Asia is not among the world’s most water-short regions. Uzbekistan, for instance, has almost double the amount of water available per capita as Spain, one of the major agricultural producers in Europe. Thus part of the in-

terim solution to the problem of water supply lies on the demand side, if the most effective uses of water are introduced, and the water-consuming production systems modernized.

Modern water-storage methods are being implemented in Turkmenistan and can be expanded widely. In 2013, Turkmenistan began building Turkmenkol, an artificial lake at a natural depression in Garashor. The lake will collect drainage water and sewage from the provinces, for purification and reuse. Two more such reservoirs are planned for construction in 2014.

One aspect of improving infrastructure to reduce water losses, is to rehabilitate the sections of Soviet-era irrigation canal systems that are in disrepair. The big contributing factor to the problem is that national boundaries now cut through what were formerly Central Asia-wide systems on the mid-level Amu Darya and Syr Darya rivers.

The challenge in the coming decades will be to accommodate large-scale industrial development and natural growth of population, which would put a great deal of stress on regional water availability. Because Central Asia is land-locked, desalination of sea water is not an option. The western parts of Turkmenistan and Kazakhstan, however, will be able to generate significant amounts of potable water by nuclear desalination on the Caspian Sea. In the short term, this does not relieve the environmental aridity from the drying up of the Aral Sea. The exposed beach on the receding shoreline, for example, has resulted in toxic sand storms, which must be dealt with. But nuclear power is essential for water for the future.

Another legacy of the Soviet era in Central Asia was the creation of an electricity-water nexus, whereby the generation of electricity from hydro-power dams in upstream countries was linked to supplying the power and water needs of those downstream. This system operated



Wikimedia Commons/Ibrahim

*The Nurek Dam reservoir on the Vakhsh River, Tajikistan.*

relatively smoothly under a common management system, and shared energy arrangements through regional electricity grids. This mode came to an abrupt end with the collapse of the Soviet Union, and overnight emergence of international borders. Now a stance of opposition is in effect between the “upstream” dam operators—Kyrgyzstan and Tajikistan—and the water- and electricity-dependent downstream nations, Uzbekistan and Kazakhstan. Although the 1992 Almaty Agreement reduced water use by “upstream” countries, and Kazakhstan is currently promoting formation of a Central Asia regional water committee, what is needed is more water.

The advent of nuclear power throughout the region can remove the apparent necessity for competition and no-win trade-offs for power and water. It can also open the way to other beneficial uses of natural gas, instead of electricity-generation, thus lifting up the entire economic platform for each nation in the region.

The story of one large dam project underscores the principle involved. Since 1960, the Rogun Dam, on the Vakhsh River, a major tributary of the Amu Darya in Tajikistan, has been proposed, designed, and partially built, but never completed. Downstream nations now oppose ever going ahead with this dam project, for fear

of losing river flow, while Tajikistan is trying to finally get it under way. As originally envisioned, Rogun (at 335 meters, the highest dam in the world) was to have been one of a trio of dams contributing to water-for-power swaps with the Uzbek and Turkmen Republics. They would provide power for the Tajik Republic and these downstream neighbors, and water for the neighbors. When power-generation was suspended, seasonally, Uzbekistan and Turkmenistan would compensate Tajikistan with power generated at fossil fuel-burning plants.<sup>1</sup> One of the other two dams in the plan, the Nurek Dam, was built in the Soviet period, while a second, Sangtuda-1, went operational in 2008.

### Agro-Industrial Development

There is great potential for expansion of agriculture and industrial activity in the pre-existing zones of light and heavy manufacturing concentrations across Central Asia, as well as in new urban centers and potential croplands.

The region is rich in industrial raw materials, as well as oil and gas, all of which are disparately distributed. In the piedmont and intermontane basins in the east, are deposits of iron ore and coal, copper, lead, zinc, antimony, gold, and others. The large natural gas fields are in the dry western lands.

The task ahead is to foster expansion of the industrial base. Heavy industry in recent times has been concentrated in northeastern Kazakhstan, also in the foothills of the Tien Shan range near Tashkent, and in places in Kyrgyzstan and elsewhere. This is connected to steel-making, processing minerals, ore-smelting and refining, and certain kinds of manufacturing—for example, agriculture implements for high-slope field work, and other specialties—as well as food processing and other light industry.

There is a vast agricultural land area of 306 million ha (756 million acres) currently in use in the four core Central Asian nations and Kazakhstan combined, and still more potential area in the future, with plentiful power and water. Kazakhstan, according to its Ministry of Agriculture, has 222 million ha (549 million acres) of farmland, a majority of which (189 million ha, or 85%) is being used as pasture land, and 24 million ha (10%) as cultivated land. Nearly two-thirds of

the latter is devoted to growing cereals and one-third to fodder crops. Kazakhstan is an exporter of winter wheat.

A priority in the existing irrigation regions, is to upgrade the physical systems, not only those used for the conveyance of water, but also water-saving methods of precision irrigation and soil-drainage. Switching from cotton to less water-consuming crops is also important, and can provide an increase in fruit and vegetable output for better nutrition regionally and for export. Expanding meat production to improve the diet is another priority, which includes not only cattle, goats, and sheep, but also poultry, which can increase production the quickest.

### The Fergana Valley Challenge

The Fergana Valley is one of the world's leading agriculture centers, home to almost 25% of the population of Central Asia, in a land area only 5% of the region's total. The Valley is a major food supplier to all Central Asia, including rice, wheat, fruit, and vegetables, as well as cotton. The Fergana Valley is strife-ridden, however, because of water and land disputes, and for political reasons. The only solution lies in the overall Land-Bridge transformation of Eurasia.

The triangular-shaped valley is defined by the Tien Shan Mountains to the north, and the Gissar-Alai range to the south. It is a flat plain of 22,000 km<sup>2</sup> (8,500 square miles), with fertile soils, and water resources, due to being at the intersection of the Naryn and Kara Darya rivers, which, entering the Valley from the east, then join up near the town of Namanagan, to form the Syr Darya River.

The population density in the Fergana Valley is more than 250 people/km<sup>2</sup>, in contrast to the average of 14 persons/km<sup>2</sup> in Central Asia at large.

The challenge arises from the fact that Tajikistan, Kyrgyzstan, and Uzbekistan share convoluted borders, a relic of Soviet so-called “nationalities policy” in the 1920s. Moreover, a significant portion of the national population of each country resides in the Valley: 30% of Tajikistan; 50% of Kyrgyzstan, and 27% of Uzbekistan. There have been endless cross-border conflicts, mostly related to access to and management of land, water, and other natural resources, and of physical assets (for example, canals, gates, and pumps) put in place during Soviet times. Borders cut across local roads, orchards, fields, sluices, and even private home properties.

1. Eli Keene, “Solving Tajikistan’s Energy Crisis,” Carnegie Endowment for International Peace, March 25, 2013, provides a detailed history of the planned arrangement.



Violence periodically erupts among the Kyrgyz, Tajiks, and Uzbeks from territorial disputes, especially in densely populated areas. As the newly independent states began to privatize state farms in the 1990s—and this program was carried out throughout the region—these private operations became the only reliable sources of family income, or, at least, subsistence farming. Agriculture in the Valley shifted from cattle breeding to subsistence farming. As a result, individual demand for irrigation water on small fields has increased sharply, along with conflict.

At the same time, there is less water available, because after the end of the Soviet Union, there have been no entities to fund maintenance of the distribution systems—mostly open concrete canals—which have fallen into disrepair. Parts of them have been broken up and sold off for scrap.

All these conditions can be superseded, and untold new productivity take place in agriculture and industry, under the impetus of the Silk Road Economic Belt, criss-crossing this region with corridors for progress.

## A Future for Afghanistan

The importance of a stable Afghanistan is not to be underestimated. Its stability is not only crucial for its 30 million people, but, as one good look at the location of Afghanistan makes evident, unless Afghanistan is stabilized, Central Asia, parts of South Asia, and even western China cannot be secured. All of the core Central Asia countries have been affected by Afghanistan's wars of recent decades and its transformation into a huge narcotics producer—from their relationships with the heavily Tajik and Uzbek ethnic Northern Alliance movement within Afghanistan since 1978, to the extensive activity of drug-running networks through the Central Asian mountains.

The damage inflicted on Afghanistan by almost continuous warfare over the past 35 years has been devastating. Two million Afghans have died in those conflicts.

A reconstruction plan must start by looking at the state of Afghanistan's infrastructure, including the fundamentals such as water, power, food security, transportation, and skilled manpower—and the lack of them. It is fair to say that the priority must be adoption of a comprehensive development plan, which would include agricultural, industrial, infrastructure, and energy projects. The requirements include those listed below.

**Agriculture.** Afghanistan's agricultural sector needs development of bulk transportation capability, preferably a railroad network. The rough Afghan terrain means that the initial transportation network will have to be based on roads. However, in the southern part of the country, in the fertile lands of Dasht-e-Khas, Dasht-e-Margow, and the Rigistan plains abutting Iran, an extensive railroad network can be developed to facilitate interaction between agricultural lands and urban centers. The agricultural sector will also require agromachinery, such as tractors, harvesters, and cultivating machines. The manufacture and maintenance of such machinery will introduce industries that will help train skilled workers and technicians.

In 2010, the Afghan government announced a 25-year plan to develop its railroads. The study on railway development for Afghanistan was completed for the following routes: (1) From Hairatan at the border with Uzbekistan to Herat in the west, via Mazar-e-Sharif; (2) from Sher Khan Bandar at the border with Tajikistan, via Kunduz to Naibabad (which is on the line under construction from Hairatan), joining Mazar-e-Sharif to Herat; (3) from Torkham at the border with Pakistan to Jalalabad; and (4) from Spin Boldak at the border with Pakistan to Kandahar.

The first Afghanistan or Central Asia program issued by the Russian Institute for Demography, Migration, and Regional Development, in 2008, concentrated on a plan for reviving agriculture in Afghanistan, to address a situation where, at that time, more than half the GDP was based on cultivation, production, and illegal trafficking of drugs. The program pointed to the fact that the southern provinces of Afghanistan are famous for their fruit, and proposed creation of a nationwide network of agricultural educational institutions, and delivery of agricultural machinery and the prerequisites for a processing industry. The researchers proposed Nangarhar and Helmand as model provinces for establishing agro-industries in sugar, olive, citrus, sunflower, pomegranate, and vegetable production (see *EIR*, Feb. 27, 2009).

**Minerals.** Afghanistan sits on a treasure trove of mineral resources, but their exploitation begs the question of developing the necessary infrastructure.

The Hajigak iron ore project, located 180 km from Kabul, has been awarded to a consortium of Indian companies, but has been delayed beyond the six months stipulated time because of some conditions that Kabul has set which the consortium has not yet

agreed to meet. When Chinese investors won a bid in 2006 to mine copper at Mes Aynak, 50 km south of Kabul and the site of one of the world's biggest copper deposits, they had pledged to lay a stretch of rail, according to Afghanistan's Finance Minister Omar Zakhilwal. The copper mine project, under a 30-year lease to the China Metallurgical Group Corporation (MCC) and Jiangxi Copper Company, is hanging fire because of security concerns. The \$3 billion contract includes a railroad to carry coal to the mine area, a smelter, and a 400 MW power plant. It could provide Kabul with as much as \$500 million in royalties. However, MCC now wants to renege on building the railway, power plant, and processing factory, as stipulated in its deal to mine at Mes Aynak.

In addition to copper and iron ore, according to Paul A. Brinkley, U.S. Deputy Undersecretary of Defense and director of Task Force Business and Stability Operations, Afghanistan has significant deposits of niobium, cobalt, gold, molybdenum, silver, and aluminum, as well as sources of fluor spar, beryllium, lithium, and other resources.

What, however, should be key in developing

Afghanistan's mining industry is to build the basic infrastructure—power; bulk transportation; water for industrial, commercial, and domestic use; and communications—to make it a success. Because these mineral reserves are dispersed, that also requires setting up institutions to train people throughout the country, cutting across ethnic backgrounds.

**Electricity.** Afghanistan is almost without electric power. Currently, the country produces about 500 MW of electricity—less than some Caribbean islands. It imports another 500 MW from neighboring countries. Afghanistan ranks among the countries with the lowest electricity production per capita in the world. Despite billions of dollars in projects over the past decade, at best one-third of the population has access to regular power.

Like the rest of the world, Afghanistan has no alternative but to develop nuclear fission power to stabilize the country, exploit its mineral wealth, set up agro-industrial corridors, and educate and provide people with water, food, education, healthcare, and a future. Nuclear power plants in clusters will be necessary to provide the power necessary to meet those demands.

## 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.

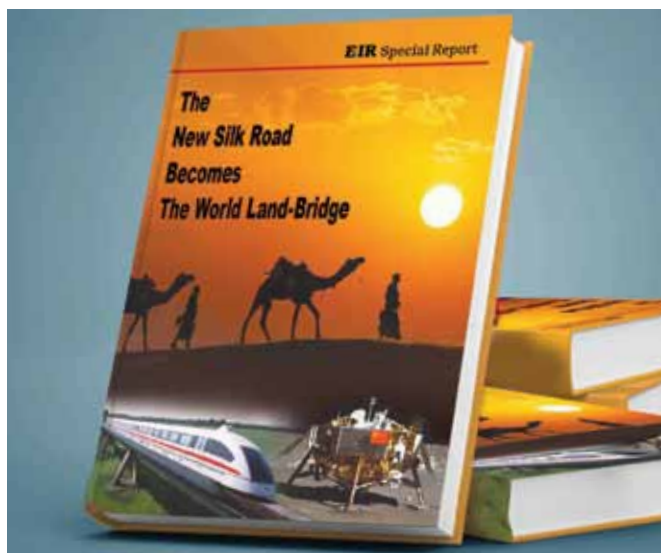
**Includes:**

**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.

**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.

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