Infrastructure in Central Asia: Energy and Transportation Controversies

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1. Historical background

Central Asia has been historically the land connection between Eastern and Western civilizations. The legendary Silk Road (or “Silk Routes”) consisted of an infrastructural network that linked China and India to the Mediterranean and European countries. It crossed deserts, mountainous regions and oasis towns – the Taklamakan Desert, the Pamir Mountains and the Chinese city of Chang’an (now Xi’an) were the eastern boundaries of the Silk Road domain.

In 329 BC, Alexander the Great established the furthest of its Alexandria cities, at the Fergana Valley, what can be considered the foundation of the Silk Road. The expansion of these trade routes in Central Asia occurred between 200 BC and 300 AD. Since the rule of the Hans, “Chinese emperors first expressed a considerable interest in the lands beyond their western frontiers and (…) Rome was equally interested in acquiring Chinese silks” (Buskirk 2008). It is important to bear in mind that, previously, there were some trade routes, but their consolidation only happened with the exploratory missions of Zhang Qin – a diplomatic envoy from the Hans to the Asiatic inner lands.

The existent commerce throughout these routes went beyond silk, despite what the name “Silk Road” may suggest. A wide array of goods was traded, such as ceramics, carpets, different spices, porcelain, animals. The Silk Road also allowed exchanges among cultures, philosophies and the expansion of different religions, such as Buddhism, in a first moment, to the inner China and Southeast Asia, and later, Islamism. The propagation of new technologies also frequently followed the merchants that came back from the Eastern lands. Even diseases were disseminated – it is believed that the bubonic plague, or the “Black death”, came to the West through those routes.

Almost a thousand years after the fall of the Han Dynasty, the Silk Road reached its zenith under the domain of the Mongol Empire, which invaded Central Asian in the thirteenth century AD. As stated by Waugh (2000), “the development of the Silk Road commerce under the Mongols was a result both of its direct promotion and
the creation of an infrastructure which ensured safe conditions for travel.” Under the rule of Genghis Khan and his descendents, the Mongol Empire extended its domains from the Chinese coast to eastern Europe, where the Mongols forged an alliance with the Genoese, giving strategic privileges to them, which resulted later in the Genoese monopoly of the trade routes that came in and out of Europe.

Under the domain of the khans, the commerce routes became safer and more organized. A postal relay system (yam) that ensured safety and relative comfort for those traveling in the service of the Mongol rulers was created. “In the middle of the thirteenth century, Marco Polo was one of many Europeans who made it all the way to China on diplomatic, religious or commercial missions” (Waugh 2000). In addition to the benefits for special envoys, the system established many other regulations concerning the traffic in routes under its control. For example, if the owner of the traded goods died in route, they automatically belonged to the ruler of the lands in which he had died. Waugh (2000) uses the words of the Florentine merchant Pegolotti, who traveled along the Silk Road, to illustrate such security: “the road you travel from Tana [Azov] to Cathay is perfectly safe, whether by day or by night, according to what the merchants who have used it say”.

The fragmentation of the Mongol Empire into smaller khanates was one of the causes of the gradual disintegration of the Silk Road. In the western part of the route, the Byzantine Empire became increasingly weak, and in 1453, the Ottoman conquered Constantinople. Since the beginning of the fifteenth century, the European powers started gaining ground, always looking for alternative trade routes to replace the traditional land pathways, what converged into the advent of the Great Navigations: the Silk Road was no longer the main route connecting Asia and Europe. Central Asia was, then, left aside to the large flows of international trade and became more vulnerable to foreign domination.

1.1. The Russian Domain and the Oil “Boom”

The years that followed the decay of the Silk Road saw the expansion of the Tsarist Empire in Central Asia, driven above all, “by the Russian interest in the area’s cotton fields, since this was a time of scarcity of this raw material due to the American Civil war (1861-1865)” (Guimarães, et al. 2010). It was only with the discovery of large fields and the start of oil exploration that international attention would once again be turned to the region.

Marco Polo had recorded the existence of oil during his travels through the Silk Route, however, it was only in the second half of the nineteenth century that its exploration became relevant in the region. At first, it focused mainly in Azerbaijan, “from the middle to the end of the 19th century, while the region was part of the Russian Empire, the oil-bearing areas of Baku were producing half of the world’s oil supplies” (Arvanitopoulos s.d.). It was only in the late nineteenth century that the first oil reserve started to be explored in Kazakhstan. Through the first and second decades of the twentieth century, new petroleum fields were discovered in
the country, containing high quality oil. In 1913, “in the Guriev region, the field Makat was opened. By 1914, Makat and Dossor produced over 200 thousand tons of oil” (English Russia 2011). Central Asia was on the spotlight once again.

After the October Revolution and the rise to power of the Communist Party in Russia, a massive process of industrial nationalization took place, what included the oil and gas fields and refineries in Central Asia. In 1922, the Union of Soviet Socialist Republics was founded and local infrastructure became more focused on the major interests of Moscow in the region: the cotton production and the oil exploitation. During World War II, “Hitler tried to capture Baku and the Caucasian oil fields as part of his strategy for world domination. After the war, the Soviets retained these areas as reserves, choosing to exploit oil deposits on Russian soil, in Tatarstan and Siberia” (Arvanitopoulos s.d.).

With the discovery of oil and gas in Uzbekistan and Turkmenistan, Soviet investments in Central Asia intensified. At the same time, the intensive cultivation of cotton, without major long-term planning seriously compromised water resources in the region, such as the Aral Sea, which virtually dried.”The purpose of the [Soviet] government was to achieve the highest possible production [...] There was no concern with the future of the oil fields, nor the maintenance of infrastructure” (Adam 2008). Aside from the new industries and large-scale farming, there was no self-sufficiency. This way, throughout the decades of 1950, 1960 and 1970 the USSR would engage in two main policies towards the Central Asian Republics: their russification and the development of their economies and infrastructures, mostly through agriculture and expansion of their capacity for the extraction of mineral and energetic resources[…] The most typical example of the Soviet policy towards Central Asia was Kazakhstan, with vast oil, gas and metal reserves, becoming a source of commodities (Guimarães, et al. 2010).

Several Western oil companies soon became interested in the newfound reserves in Central Asia. The USSR did not allow, however, concessions for foreign companies, centralizing all operations under its control. In 1979 the Tengiz field, one of the most promising reserves in the region, was discovered in northern Kazakhstan. The United States immediately expressed interest in participating in the exploitation of Tengiz, negotiating with the Soviet government throughout the 1980s. The U.S. increasingly invested in local infrastructure, both for energy and transport. For example, in 1990 Soviet president Michael Gorbachev visited the United States and signed a letter of intent to jointly develop the field, allowing Chevron to enter the negotiations (Tengizchevroil 2013). Then, in 1991 commercial exploitation of the Tengiz Field began. At the same year, however, the USSR ended, and new countries arose, with autonomy over their own infrastructure network.

1.2. Post-Soviet Period

With the collapse of the Soviet Union and the rise of new countries in the region,
these infant states found themselves facing a great number of challenges. The main question was how to achieve the transition from part of one unified federation, with a geographically distant capital, to the status of an independent state; building a national infrastructure and “create institutions and state legislation (adapting or transforming what they inherited from the USSR), a national economy itself, involving capitalist relations and private property” (Adam 2008).

Concerning transports infrastructure, for example, “all roads and railroads were built northward into Russia and it was almost impossible to travel between the provinces of East and West Kazakhstan without a stop in Moscow” (Fishelson 2007). But it was not only in respect to land transports, but also to the energy matrix, communication, air transport and waterways that Moscow was placed as the center. The main problem was the issue of petroleum infrastructure. Mainly, all the oil and gas pipelines ran to Moscow, or they were shipped to Russian ports. At the same time, local refineries ran Siberian crude oil.

The transition to independent governments led the new States to approach Western governments, which engaged in paving the way for their companies in the region in order to harness the great potential for oil and gas. Chevron was the first big oil company to enter Central Asia. The big problem was the drainage infrastructure, in which had been inherited from the USSR. Oil companies, then, “saw in using the old Soviet pipeline system the easiest way to evacuate their initially low volumes in order to defer capital expenditure on new transportation infrastructure” (Chow and Hendrix 2010). Thus, Chevron, negotiated with Transneft, the Russian state-owned company that monopolized pipelines in Central Asia, to upgrade the oil infrastructure as way to facilitate draining oil and gas to the Black Sea.

In 1991 Chevron signed an agreement with the Kazakh government to develop a joint-venture aiming to explore the aforementioned Tengiz field. In the next year, Nazarbayev, president of Kazakhstan, signed a “40-year agreement to found Tengizchevroil on April 6 in Almaty. [A] joint venture was created between Chevron Overseas Petroleum Inc. and Tengizneftegas Production Association” (Tengizchevroil 2013). During the following years, other companies started exploring oil and gas in Central Asia: Hurrycane Hydrocarbons (1991) – a Canadian oil company, currently “PetroKazakhstan”; Uzbekneftegaz (1992), a state-owned oil company from Uzbekistan; LukArco (1997) – a joint venture between the Russian Lukoil and the former ARCO; British Petroleum; and others.

The 1990’s were a time of change in Central Asia. The end of the USSR and its fragmentation into smaller states led the region to face unique challenges in its history. Besides having to create a whole administrative and political structure, it was necessary to adapt their infrastructure to the new reality. The oil rush put the fields in Central Asia under the spotlight of the big companies. When the decade was over, companies from all around the world were established in the sub-continent; the Russians, traditionally the most influential power in the region,
had to deal with big concurrence, not only from western interests, but with the growing influence of eastern nations, especially China, that regained interested in the region. At the dawn of the new millennium, the sound of oil gushing from the ground was the announcement of a new great game being born (Adam 2008).

2. Statement of the issue

Central Asia is a scarcely populated area that lies between Europe and East Asia, two of the main consuming and producing markets today. As seen in previous sections, its geographic importance always relied more on its strategic position for commerce than in other aspects. Today, as we will analyze in the following sections, one of the main issues regarding this region concerns infrastructure to connect the two aforementioned areas, both in terms of transportation and energy. As put by Odum and Johnson,

Provision of physical infrastructure is one of the crucial ways that states establish the boundaries of their sovereign borders, project authority throughout their territories, and contribute to growth and development through the provision of public goods, such as roads and railways, water and power supplies, and telecommunications (Odum e Johnson 2004, 60).

With that in mind, the following analysis will focus more on the controversies seen today regarding the topic in the region, than on the infrastructure projects per se. The subject will be discussed in two main areas: energy infrastructure and transportation infrastructure.

2.1. Energy Infrastructure: Reserves and Pipelines

Central Asia represents both a large potential producer for energy resources and a hub to connect oil and gas ducts inside Eurasia. Estimations by the International Energy Agency indicate that the Caspian region (including Azerbaijan) contains 3.5 per cent of the world’s proven oil reserves (IEA 2010). The bulk of these reserves are in Kazakhstan, with smaller volumes in Azerbaijan and Turkmenistan. Regarding natural gas, the region accounts for around 7 per cent share of global proven, mostly concentrated in Turkmenistan. The main issue regarding the energy situation is that all the countries in Central Asia are landlocked. They have to rely on complex infrastructure to import and export its resources (IEA 2010).

When the USSR collapsed, Russia was still capable of utilizing the advantages of the past power it held over the countries in Central Asia, especially in transiting oil and natural gas. In other words, the transportation of energy was directed toward European Russia as part of the Soviet legacy inside the countries in that region. The governments in the countries of the Caspian region sought to utilize their newfound political and economic independence by inviting Western oil companies to rapidly develop the region’s oil and gas potential; however, these same major oil companies, making economical calculations, decided to use
the old Soviet pipeline system as the easiest way to evacuate their initially low volumes, with the purpose of deferring capital expenditure on new transportation infrastructure (Chow e Hendrix 2010).

A small pipeline network built by the Soviets has long been the main way to carry Central Asian oil and gas towards Moscow. However, as the figures of reserves show below, this network will not be sufficient to carry the massive amount of reserves available for long. A number of pipelines have been built following the fall of the Soviet Union: the Caspian Pipeline Consortium from the Tengiz oil fields to the Russian port of Novorossiysk on the Black Sea; the Korpezh-Kurt Kui gas pipeline from the Turkmen fields to Iran; and the Kazakhstan-China pipeline from Atasu to Alataw in China, to name a few (Fishelson 2007). Figures 1 and 2 show the existing and planned oil and gas pipelines for the region, respectively.

One of the main controversies concerning energetic infrastructure regards the rights to the Caspian and its seabed, derived mainly from the question of whether the Caspian should be considered a lake or a sea under the United Nation’s Convention on the Law of the Sea (1982) (Fishelson 2007). The difference lies in the fact that, if considered a lake, each littoral State would be entitled to an exclusive zone for a given number of miles from its shore and the center of the lake, all its resources and construction would be a shared by these states. However, if declared a sea, the entire Caspian would be divided up according to each State’s amount of coastline (Vanhove 1997). Although the issue of ownership of the Caspian remains undecided, oil and gas exploration and drilling continue nonetheless.

One of the first Chinese moves in Central Asia’s energy sector was made in October 2005, when the state-owned Chinese National Petroleum Company (CNPC) purchased the Canadian-based PetroKazakhstan Inc., owner of the Kumkol field, a move that was considered a victory over the rival Lukoil, the privately-held Russian giant (The Economic Times 2007). In order to maintain its government-fostered rapid growth, China has relied on massive oil imports, mainly from the Middle East. The purchase in Central Asia represents a source of oil that it at least partially controls, that is located in a politically more stable region, and which can be imported directly overland from a friendly country. Initially the goal was to prevent shortages due to war or possible Western-enforced embargos either in the Middle East (Fishelson 2007). The purchase of PetroKazakhstan was only a small part of China’s overall plan to access Central Asian oil. This movement began in 1997, when China and Kazakhstan signed a deal for the construction of the Sino-Kazakh Oil Pipeline Co. Ltd., a pipeline running from the Caspian Sea to Xinjiang that was complete by 2011 and is referred to as the Kazakhstan-China Pipeline (KCP) (Xinhua 2005).

On the Russian perspective, the main project is the Caspian Pipeline Consortium (CPC). In this consortium, Russia holds close to 45% of the shares, Kazakhstan, over 20%, Chevron, 15%, and the remaining is shared by other minor partners. This pipeline transports Caspian oil from Tengiz field to the Novorossiysk-2 Marine
Terminal on Russia's Black Sea coast. This pipeline, being shared by Russians and Americans, put it on a fairly safe ground in political terms, while still making Kazakhstan more dependent on Russia. One of the CPC disadvantages is the need to pass through Turkey’s Bosphorus Straits after getting to the Black Sea, when the oil can be shipped worldwide (Fishelson 2007).

Figure 1: Central Asia Oil Pipelines | Source: IEA 2010

Figure 2: Central Asia Gas Pipelines | Source: IEA 2010

Being a major energy producer, Iran has also been investing in making its output flow to the consumer markets. Besides, given its position in Asia, it could also take advantage of tariffs from passing pipelines. In this sense, it participates in the Korpezhe-Kurt Kui gas pipeline, which traces the Caspian shore from the Turkmen fields of natural gas to the northern city of Kurt Kui in Iran (EIA 2012). Other major initiative involving both countries is the Turkmenistan-Iran-Turkey pipeline (TIT), which could be extended north to include Kazakh gas; and the Kazakhstan-Turkmenistan-Iran oil pipeline (KTI), which could be built in conjunction with a gas pipeline (Khatinoglu 2012).

On December 11, 2010 Turkmenistan, Afghanistan, Pakistan and India signed two agreements for constructing the Turkmenistan, Afghanistan, Pakistan and India Gas Pipeline (TAPI) (Peimani 2011). Besides the economical benefits from the construction of the pipeline, the agreements also have political goals in their inception, even involving countries that are not a party in them. One of the outcomes would be dissuading India from importing gas from Iran through the proposed Iran-Pakistan-India Gas Pipeline (IPI) – turned into Iran-Pakistan Gas Pipeline (IP) when India withdrew from the project in 2009, a move that is still opposed by many inside the Indian society. This project is endorsed by the United States, which also view it as a means to stabilize Afghanistan after the withdrawal of foreign troops. Finally, there is also the Trans-Caspian Pipeline (TCP), which can be seen as an effort of the West to undermine Russian and Iranian influence in the area by going under the Caspian Sea (Peimani 2011).

In conclusion, we can see a new “Great Game” emerging in Central Asia. China is investing in exploration and development projects in the region, and started to construct large-scale pipeline projects for the transport of Central Asian oil and gas eastwards (Petersen and Barysch 2011). From the viewpoint of the Central Asian countries, there are benefits derived from China’s growing involvement in the region, since it provides much-needed investment capital and it helps them mitigate their dependency on Russia. The strategic map of the region is complex, since both Kazakhstan and Turkmenistan have adopted a multi-vector approach in their energy strategies. In its most basic sense, this means that the vast oilfields of Kazakhstan and gas fields of Turkmenistan are open to competition (Petersen and Barysch 2011).

2.2. Transportation Infrastructure: The New Silk Road

Transport infrastructure is one of the State’s primary concerns. As seen in previous sections, the Soviet planning of transportation “radiated from the center to the satellite republics” (Odum e Johnson 2004, 60) and the region inherited problems from this model after the collapse of the USSR. Today, the main project for transportation is a revival of ancient routes. As put by Parag Khanna:
Figure 3: Asian Highway Network Map | Source: UNESCAP 2010\(^1\)

Figure 4: Trans-Asian Railway Network | Source: UNESCAP 2011\(^2\)

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Traveling from Scotland to Singapore (or reverse) by train seems like a gap-year backpacker’s itinerary, or just another endless carefree rite of passage for any Australian. It is undoubtedly the Holy Grail of rail travel: a seamless connection across the furthest distance that could conceivably be traveled on a single rail track. But it also marks the ultimate compression of geography, smoothly traversing the world’s largest, most diverse and turbulent landmass. The distance from London to Shanghai is the same as London to San Francisco, and Eurasia boasts most of world’s population. It has always been—and will always be—the going concern of geopolitics. Today Eurasia is being densely knit together through an infrastructural exoskeleton of railways and pipelines: Iron Silk Roads (Khanna 2012).

However, just as the ancient road extended through many territories, the new project faces concurrent approaches. As we will see ahead, the concept of a “New Silk Road” of trade, transport and telecommunications connections across Eurasia is originally a endorsed idea by the US State Department; however, Beijing and Chinese companies saw the opportunity of easing the flow of its production to richer markets and taken the lead in realizing the immense infrastructure projects that will tie the mega-continent together (Petersen 2013).

The Chinese project aims to create a net of roads and railroads connecting its more wealthy shore in the Pacific to the markets in Europe passing through Kyrgyzstan and Uzbekistan (Stratfor 2012). This proposed rail project would be 268 kilometers long just in the Central Asia part, starting in the Chinese market town of Kashgar in Xinjiang and through Kyrgyzstan’s Kara-Suu before ending in Uzbekistan’s Andijan. Apart from the aforementioned objective of connecting the Pacific producers to the final consumers in Europe, this project has other benefits, since both Kara-Suu and Andijan are two of Central Asia’s largest bazaar and commercial hubs, meaning cheap Chinese goods would be able to flood the area (Economy Watch 2010).

Given today’s road infrastructure (see Figures 3 and 4), still influenced greatly by the Soviet period, the countries of the region import low-cost goods mainly from Russia and other more expensive suppliers (Economy Watch 2010), and the Chinese would be able to secure a sizable portion of this market with its competitive prices. The commercial flow would also go in the other direction, since such a connection would also open up the Chinese market to Uzbek exporters for commodities such as uranium and cotton. In addition, there is the issue of transportation costs, since the price of transporting goods by rail are estimated to be only 10% of going through roads, once the infrastructure investment is paid (Stratfor 2012). Regarding the existing transportation infrastructure, there already is a robust rail system in Iran, Turkey and Europe, so China only needs to connect to those countries’ networks to gain access to their markets. The difference of utilizing rail and sending goods through the sea is also a factor, the trip being estimated to be much shorter when utilizing the first option, apart from avoiding piracy problems. Reducing such costs, time and risks is important when Europe is
struggling against an economic crisis and China is seeing its growth to diminish.

Another project designed by the Chinese is a second railway link between China and Kazakhstan at the burgeoning Khorgos crossing point and Special Economic Zone (Petersen 2013). The main idea behind this 600-kilometer section is to connect China’s eastern port of Lianyungang to Kazakhstan’s rail system to take advantage of the existing infrastructure that points west toward Russia and the Caspian region. Chinese officials refer to it as part of the New Eurasian Land Bridge from China’s ports to Western European ports such as Rotterdam (Global Times 2012). Khorgos is becoming increasingly important in terms of economical infrastructure, since it is a key border crossing already for the Central Asia–China natural gas pipeline from Turkmenistan and has a new highway network under construction.

Goods transported from China’s Pacific shore producers to Western Europe along the railways should be delivered in one fifth of the time it takes for maritime transport, claims China’s Transportation Association (China Daily 2012). This cost-effectiveness is bigger when transporting by land high-value-added goods such as electronics, machinery and appliances, and such goods make up 30 percent of China’s exports to Shanghai Cooperation Organization (SCO) countries. Although is cheaper to transport goods by sea, when we take in account the time required and the other risks involved, the results are much more beneficial when utilizing the railroads. China’s venture in infrastructure has allowed their west-bound merchandise to avoid the Strait of Malacca through the shorter “five finger” overland routes (Khanna 2012), as seen in the following picture that depicts the main Chinese approaches for transportation infrastructure in Central Asia.

![Figure 5: Five Finger Chinese Overland Routes | Source: Yanofsky 2012](image-url)
In principle, U.S. and Chinese “New Silk Road” visions have a lot in common (Petersen 2013). Washington’s main idea, however, is to develop and stabilize the area around Afghanistan, focusing on northeast-southwest links that integrate that country with its Central and South Asian neighbors and thus serve as corridors of interconnectedness. In contrast, at least until this day, Beijing is more prone to achieve an east-west connection project, pursuing what is being called “all roads lead to Urumqi” strategy. There is also the difference when regarding execution, since China’s political will, available funding and geographic contiguity mean that its vision tends to develop much faster than the American one, since the policymakers of the latter can only hint and foster private sector investors in the right direction (Petersen 2013).

The North-American project for the New Silk Road aims to create a hub of transportation in the region, providing its States, especially Afghanistan, with revenues from tariffs of the passing commerce. The goal is to guarantee that the region will remain stable after the American troop’s withdrawal. In the words of Robert Hormats, Under Secretary for Economic, Energy and Agricultural Affairs of the United States,

The importance of improving connections between South and Central Asia – especially Afghanistan and Pakistan – is made all the more urgent as we and our allies begin the transition process in Afghanistan, which will ultimately result in the complete handover of security responsibility to the Afghans. (…) The basis for the “New Silk Road” vision is that if Afghanistan is firmly embedded in the economic life of the region, it will be better able to attract new investment, benefit from its resource potential, and provide increasing economic opportunity and hope for its people (Hormats 2011).

The bulk of the American withdrawal from Afghanistan started in 2011 and the government wants to complete it by the end of 2014. 150,000 foreign troops and 30,000 contractors will leave Afghanistan in this period and according to official sources, the U.S. Agency for International Development (USAID) budget has been steadily declining (Rosenberger 2011). This can be seen as the unraveling of the war economy, just as pressured by some sectors inside the United States. However, the foreign spending inside the Afghanistan economy has created a large economic bubble, that will shrink as this expenditure fade away, resulting in reduction in aggregate demand. A metaphor used by Dr. Leif Rosenberger to exemplify a probable scenario to the country is what happened in East Timor:

When peacekeepers left the country, there was no effort made to boost private or public investment. There was also no attempt to create rural banks. So money literally had to be carted around. A proposal to execute a public works program to rebuild the shattered infrastructure was rejected. United Nations (UN) peacekeepers opted to cut and run, which left rising unemployment and violence in their wake (Rosenberger 2011).
Another major factor in this situation is Russia, a country that has benefited from having the Central Asian States remain on the broad-gauge rail system (Stratfor 2012). This has kept other countries, mainly China, from shipping their goods to Central Asia en masse and undercutting Russian goods. Russia uses this strategy together with Kazakhstan. This country’s and some others’ growing autonomies have pushed them away from Russia, mainly towards China. Uzbekistan, for instance, has recently broken out of Russia’s security bloc, the Collective Security Treaty Organization, and has been trying to distance itself from Moscow’s influence (Stratfor 2012). Therefore, trying find an alternative to Chinese efforts, Russia and India, together with Iran, founded the International North-South Transport Corridor (INSTC):

This corridor establishes a transit link between Scandinavian countries and Russia to the Indian Ocean, the Persian Gulf, and Southeast Asia. This transit route connects European countries and Russia through the ports of Amsterdam, Copenhagen, Hamburg, Helsinki, and Stockholm to St. Petersburg and Moscow and can extend to the southern ports of the Caspian Sea (for example, Anzali and Amirabad). It also connects Central Asia through Russian ports north of the Caspian Sea and can extend to Iran via the southern ports to the Persian Gulf and countries on the Indian Ocean to Southeast Asia (...). The route links the Indian port of Mumbai with Bandar Abbas in southern Iran through maritime transport. From there, goods will be shipped to northern Iranian ports on the Caspian Sea (Bandar Anzali and Bandar Amirabad) through roads and railway and then finally will be dispatched to Astrakhan and Lagan ports in Russia (Sachdeva 2007).

3. Previous international actions

Inside the Shanghai Cooperation Organization, the official statements regarding transportation and energy infrastructure reassert the importance of cooperative actions. They focus less, however, on operative and technical topics than on the broader consensual stance that the countries assume when dealing about those issues, as the excerpts will show below. This fact indicates that the goal of aforementioned statements is to serve as a “strategic guide” to the member countries on those matters.

In June 2012, during the Meeting of the Council of the Heads of State of SCO Member States that took place in Beijing, the parties signed the “Declaration of the Heads of State of the Member States of the Shanghai Cooperation Organization on Building a Region of Lasting Peace and Common Prosperity” (SCO 2012). This Declaration included the following paragraphs:

The member states will work hard to safeguard energy security in the region. The member states attach importance to developing transport infrastructure that connects Asia with Europe, building relevant international transport corridors and improving the efficiency of multimodal transport, and they will continue to strengthen cooperation to accomplish the above tasks (SCO 2012).
The expressions “will work hard” and “attach importance” seen in those two paragraphs do not outline, by themselves, a specific schedule or framework to actually “safeguard energy security” or “develop transport infrastructure”. Nonetheless, seen as the externalization of a formed political consensus towards two very important issues today in the region, the statement makes the measures the countries will take public.

On May’s 13th and 14th, 2010, Dushanbe hosted the fifth session of the Shanghai Cooperation Organization Forum. The Forum was prepared and staged by the SCO Research Centre of the Republic of Tajikistan. Over 50 experts, including heads and representatives of the member states research centers, as well as SCO Secretariat officials, ambassadors and diplomats from the member and observer states, attended. Among the items discussed in the Forum, were the search for effective mechanisms of rational use of Central Asia’s water and energy resources by SCO member states, cooperation in the field of transportation and communications, as well as potential involvement of SCO observer states and dialogue partners (SCO 2010).

Actions taken outside the SCO framework and even before its existence have also taken place in Central Asia. Firstly, they focused mainly on economy and trade, in order to manage trade flux more efficiently after the demise of the USSR (Sachdeva 2007). In this area, many initiatives can be listed, such as the Commonwealth of the Independent States (CIS), composed by four Central Asian countries; the Eurasian Economic Community; the Central Asian Cooperation Organization, which created a Central Asian Bank for Cooperation and Development; and, encompassing members outside Central Asia, the Economic Cooperation Organization, created by Iran, Pakistan and Turkey, and composed by all the Central Asian countries.

Regarding transportation infrastructure specifically, the main actions taken outside SCO jurisdiction were the creation of the Asian Highway Network project, the Trans-Asian Railway (TAR) project (both of them inside the Asian Land Transport Infrastructure Development of the UN’s Economic and Social Commission for Asia and the Pacific), and the Central-South Asian Transport and Trade Forum (CSATTF). The Asian Highway Network project was initiated in 1959, practically coming to a halt in 1975, and regaining momentum with the adoption of the Intergovernmental Agreement on the Asian Highway Network in 2003 (UNESCAP 2013a). “A total of US$26 billion has already been invested in the improvement and upgrading of the Asian Highway network. However, there is still a shortfall of US$18 billion” (UNESCAP 2013a). TAR has a similar history, initiating in the 1960s, losing strength after the petroleum crises of the 1970s, and reacquiring dynamism in the 1990s (UNESCAP 2013b). Today, the project routes in operation cover a distance of more than 80 thousand kilometers in 26 countries, and are divided in four main components:
(i) a northern corridor connecting the rail networks of China, Kazakhstan, Mongolia, the Russian Federation and the Korean Peninsula; (ii) a southern corridor connecting Thailand and the southern Chinese province of Yunnan with Turkey through Myanmar, Bangladesh, India, Pakistan and the Islamic Republic of Iran with Sri Lanka also part of the corridor; (iii) a subregional network covering the ASEAN and Indo-China subregions; and (iv) a north-south corridor linking Northern Europe to the Persian Gulf through the Russian Federation, Central Asia and the Caucasus region (UNESCAP 2013b).

The CSATTF is an initiative created with Asia Development Bank’s assistance, aiming to establish transport corridors in Central and South Asia (Sachdeva 2007). The countries participating are Afghanistan, Iran, Pakistan, Tajikistan, Turkmenistan, Uzbekistan, China, India, Kazakhstan, and the Kyrgyz Republic. Energy efforts, outside the SCO, are mainly bilateral (Chow & Hendrix 2010).

In 2010, acknowledging the importance of the SCO, the General Assembly of the United Nations issued a resolution establishing a framework for cooperation between the aforementioned organisms (United Nations 2011). In its preamble, the resolution states:

Noting that the Shanghai Cooperation Organization has become an essential regional organization for addressing security in the region in all its dimensions, Convinced that strengthening cooperation between the United Nations and other organizations of the United Nations system and the Shanghai Cooperation Organization helps to promote the goals and objectives of the United Nations (United Nations 2011).

The first operative clause details the areas of greater success in the SCO’s scope:

Takes note of the activities of the Shanghai Cooperation Organization aimed at strengthening peace, security and stability in the region, countering terrorism, separatism and extremism, drug trafficking and other types of criminal activity of a transnational character and promoting regional cooperation in various areas such as trade and economic development, energy, transportation, agriculture and agro-industry, the regulation of migration, banking and finances, information and telecommunications, science and new technology, customs, education, public health, environmental protection and reducing the danger of natural disasters, as well as in other related areas (United Nations 2011).

In conclusion, we can see that most of the institutional regional initiatives addressing infrastructure problems in Central Asia gather around two main purposes:

[T]o recreate lost linkages among the former Soviet republics or initiatives by multilateral organizations to strengthen regional linkages in the areas of trade, energy, water resources, infrastructure, and communications. These are largely affairs within the former Soviet space. Other countries like China, Iran, Turkey, and Pakistan have also been able to create some formal structures for closer interactions, some of which may become useful in the long run (Sachdeva 2007).
4. Bloc positions

The People’s Republic of China is the world’s biggest energy consumer (Banerjee, et al. 2013) and second economy, and perceives Central Asia as a key region to ensure its economic development. Its plan to project itself westwards is based on a wide range of objectives: to achieve economic development in the Xinjiang – the separatist province that is known to have great energy potential is historically part of Central Asia (Mutlu 2013), and consequently internal political stability, energy security, the creation of an alternative trade corridor to Europe and the increase of trade with Central Asia (Swanström, Norling and Li 2007).

China has announced at last year’s Beijing SCO Summit that it would donate 10 billion dollars to support the economic cooperation within the Organization, focused especially on infrastructural development (Lu 2012). Among the massive Chinese investments in infrastructure that are part of the Chinese “New Silk Road”, the attentions turn to the Land Bridges that aim to connect China to Central Asia and Europe via Xinjiang; the role of CNPC (China National Petroleum Company) and its pipeline network, running from several Central Asia Countries to China. Thus, China uses the framework of the SCO to work in way to lead the integration of Central Asia, and to maintain its own niches at the expense of Russia’s interests in Central Asia (Boyko 2007).

Although the Russian Federation has been historically the most influential power in Central Asia, it has lost ground due to the Chinese growing influence in the region. The country uses its influence in regional organizations, especially the EAEC (Eurasian Economic Community), the SES (Single Economic Space) and the CIS, to safeguard its interests in the countries that were once part of the Soviet Union and counterbalance the Chinese economic power. In this regard, it has rejected, together with another SCO members, China’s proposal of creating a regional free trade zone (Boyko 2007).

Russia seeks to lead a “northern orientation” to Central Asia, and for this purpose it takes advantage of the old Soviet pipeline and railroad infrastructure (Boyko 2007). Among the country’s main projects, the Caspian Pipeline Consortium and the North-South International Transport Corridor – that establishes a transit link between Scandinavian countries and Russia to the Indian Ocean, the Persian Gulf, and Southeast Asia (Sachdeva 2007) – are essential because they leave China aside and connect Asia to Europe via Russia. The Russian Government has also great interest in establishing an “energy club” with the SCO members, to create a unified energy market that could strengthen regional cooperation through preferential energy agreements (Kundu 2013).

On the one hand, the Republic of Belarus is a traditional Russian ally, member of the CIS and of the North-South International Trade Corridor, figuring, in the last, as a possible corridor from Asia, via Russia to Europe.

On the other hand, “the landlocked states of Central Asia are equally distant from Beijing and Moscow, and they face a variety of overlapping foreign policy
challenges in relations with both China and Russia” (Maksutov 2006). These countries do not see themselves in a position of natural alignment with China or Russia. Since the end of the Soviet Union, they have faced unique possibilities regarding their foreign policy orientation; they perceive the SCO as a forum where they can discuss matters of economy and security in equality with Moscow and Beijing.

The **Republic of Kazakhstan** has 3% of the world’s total oil reserves and it is only after Russia in regard to oil reserves and oil production among the former Soviet Republics; its current production is concentrated in two giant fields: Tengiz and Karachaganak, which produce about half of Kazakhstan’s total output (EIA, Kazakhstan 2012; KazMunaiGas 2013). The country is the root of several pipelines (see Figures 1 and 2). It has great interests in the regulation of the Caspian Sea as a lake, where only he coastal countries could explore the natural resources, but the terms of exploitation in the subsoil remain under debate. Concerning transportation, Kazakhstan is essential to both North-South and “East-West” (from China to Europe) corridors. During the last years, the country has received a great amount of foreign investments related to infrastructure development, especially from China. But its key position presents Kazakhstan with the possibility of bargaining: it will look for the best alternatives, attempting to work out conditions that will insure stable oil and gas pricing (Kushkumbayev 2007) and its political autonomy.

The **Republic of Uzbekistan** has “abundant oil and natural gas reserves, however several factors such as lack of sufficient foreign investment and inadequate transportation infrastructure have deterred the country from becoming a major energy exporter” (EIA, Uzbekistan 2012). Seeking for international partners to achieve development, Uzbekistan takes part in many regional organizations focused on economic and infrastructural cooperation, such as CIS, EAEC, ECO and the Central-South Asian Transport and Trade Forum (CSATTF) (Sachdeva 2007). It is important to note that Uzbekistan has officially left the CSTO and has been distancing itself from Moscow as it fosters closer relations with Beijing (Stratfor 2013). The question of infrastructure in Central Asia is a core issue in Uzbekistan’s national interests. The country aims at improving its current position, from an important trade corridor, to a key energy player in the region.

The **Republic of Tajikistan** and the **Kyrgyz Republic** are small landlocked Central Asian countries that aim both to integrate their economies to their neighborhood and leverage their trade volume. As Uzbekistan, they are members of regional initiatives like CIS, EAEC, ECO, CSATTF, but also of the North-South International Trade Corridor and of CSTO – the Russian influence in these countries is still relevant. Kyrgyzstan has received financial assistance and duty-free oil products from Russia to try to solve its numerous economic and social problem as Bishkek sold its main energy firm, Kyrgyzgaz to Russia (Stratfor 2013). The social problems in the Central Asian Republics are a great challenge
to economic development. Attention must be paid to tribal conflicts inside and among countries, particularly in border regions, as the Ferghana Valley, where extremist groups can pose a threat to regional relations.

As Central Asian countries seek to develop their economies and sway between the influence of Moscow and Beijing, they can find an interesting and profitable alternative by turning south. Some might consider the Republic of India as more attractive than Russia as an integrative center, source of investments and of technologies (Boyko 2007). India is the fourth largest energy consumer in the world (EIA 2013), and the tenth largest GDP (World Bank 2013). To maintain its growth rates, the country needs to assure its energy supplying and external routes to drain its production. As Sachdeva (2007) puts it: “New energy sources from the Greater Central Asia will play an important role in Indian energy strategy in the coming years”. This conscience is clear when India takes part in the TAPI pipeline project. The country is also a partner of the North-South International Trade Corridor and of the CSATTTF, and plays a key role in the South Asian Association for Regional Cooperation (SAARC). Thus, India needs to show itself as an alternative partner and investor to develop infrastructure – and local economies – in Central Asia, placing itself as the third weight on the balance.

Nowadays most Central Asian countries acknowledge the Islamic Republic of Pakistan’s importance as a southern transit route, providing an outlet for their landlocked economies (Kazi 2007). The Pakistani port of Gwadar, for example – which is largely financed by China – can represent the entrance door for foreign direct investment in Central Asia and the link to external markets. The country is a partner of several initiatives that aim to promote regional development and investments in infrastructure, such as ECO, SAARC and CSATTTF. Concerning energy, Pakistan relies on two major projects: the IP and TAPI Pipelines Projects. The IP Gas Pipelines have been designed to help the country overcome its growing energy deficit, carrying natural gas from Iran to Pakistan, with a capacity 21.5 million cubic meters per day (PressTV 2013). However, Islamabad, aware of possible US sanctions, has shown its intention to place a request before the Iranian government for completely financing the project (Bhatta 2013).

The newly elected president of the Islamic Republic of Iran has already reiterated its country’s intention to continue the implementation of the IP Gas Pipeline, and has stressed the importance of the joint project on increasing cooperation and economic relations between the two countries (The Nation 2013). This deep interest in the IP Gas Pipeline can be justified by the fact that, despite holding the world’s fourth-largest proven oil reserves and the world’s second-largest natural reserve, International sanctions and the lack of foreign investment

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1 The Ferghana Valley is located among the borders of Uzbekistan, Tajikistan and Kyrgyzstan. It is an extremely fertile area, and has been traditionally densely populated by a large variety of tribal groups. The once pacific region is, since 1991, the ground of many disputes. The countries regularly close their borders, causing difficulties for trade and communication among them. The tribal rivalries are strengthened due to the religious conservatism, giving an explosive feature to the Ferghana Valley.
and technology is affect the energy sector profoundly (EIA, Iran 2013). Also, Iran play a key role as a corridor between the landlocked countries of Central Asia and open seas.

"[T]he construction of a gas pipeline from Turkmenistan through Afghanistan to Pakistan and India would allow the Islamic Republic of Afghanistan to serve as an energy bridge between Central and South Asia" (Boyko 2007). Currently, its entire infrastructural network is financed by foreign governments and is entirely directed at logistical assistance to the ISAF. With the withdrawal of the occupying troops, the plan of the US is to convert the country into a transport hub, what could be the key to develop its project of a Modern Silk Road and, at the same time, promote the country’s internal development (Cuchins, Sanderson and Gordon 2009). Afghanistan’s membership into SAARC in late 2005 created a new dimension in the economic integration of Greater Central Asia, it has the potential change regional economic linkages between the South and Central Asian regions (Sachdeva 2007). The country is also a member of ECO and CSATTF.

One of the Republic of Turkey’s greatest interests in Central Asia remains the Baku–Tbilisi–Ceyhan (BTC) Pipeline, which was built by a consortium of 11 companies, including Turkish Petroleum Corporation. “It is designed to bring a non-Middle Eastern source of oil to the West, [what] would loosen Russia’s and Iran’s grip on the transport of Caspian and Central Asian oil by creating a new route that is friendlier to the United States and Europe” (Kaya 2007). With Europe’s growing energy import demand and need to improve trade relations with Asia, Turkey sees itself as a strategical corridor, connecting Eastern and Western hemispheres.

Mongolia and the Democratic Socialist Reppublic of Sri Lanka are both countries that are seeking to develop their internal infrastructure, relying mainly on foreign investments. Mongolia is currently negotiating with China and Russia to re-direct a planned natural gas pipeline across its territory, reducing 1,000 kilometers from the original route (outlining Mongolia) and cheapen gas heating on its capital (Humber and Shiryaevskaya 2012). At the same time, it needs to improve its transportation infrastructure in order to guarantee the development of its infant industry. Sri Lanka is also making efforts in order to develop its energy and transportation infrastructure, cooperating with other SAARC members, especially on oil importation, which represented approximately 85% of Sri Lanka’s commercial energy demand in 2012 (Abeygunawardane 2013).

5. Questions to ponder

1. Why have transportation controversies been on the rise in recent years?
2. Regarding the New Silk Road, how do the different approaches to the project individually impact the region?
3. How are the countries in the region working to establish energy security for the 21st century?
4. How do infrastructure issues affect national security of the countries in the region? What projects will work better towards addressing those issues taking into account the security factor?

5. To what extent do the infrastructure controversies highlight the polarization in Central Asia? In contrast, how polarization is influenced by each country’s energy and transportation strategy?

6. Why is discussing those controversies inside the SCO framework beneficial for both large and small countries? Is bringing the negotiations to the Summit going to help reach consensus?

7. How will the dialogue partners and observer members, mainly the countries outside Central Asia, effectively affect the discussion?

References


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Abstract

Until now, the infrastructure system in Central Asia has remained almost the same as in the Soviet Union period, poorly planned and focused mostly on the massive cotton production. Now, two decades later, the independent countries face great challenges: building an infrastructure network consistent with their national and regional economic ambitions, and the increasing influence (and, consequently, rivalry) of more powerful countries in the region, especially China and Russia. This way, the discussion regarding cooperation in Central Asia necessarily covers the question of physical integration in two main areas: energy and railroads infrastructure, both indispensable to the development goals of the SCO members.