



US-KOREA 2012
YEARBOOK

JOHNS HOPKINS
UNIVERSITY

SAIS | US-KOREA 2012 YEARBOOK

Published by the U.S.-Korea Institute at SAIS
www.uskoreainstitute.org

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The Paul H. Nitze School of Advanced International Studies, Johns Hopkins University
Printed in the United States

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South Korea's "New Silk Road" to Central Asia: Diplomacy and Business in the Context of Energy Security

By Alison Evans

I. INTRODUCTION

Security for the two Koreas is most immediately conceived of in military terms. However, energy security has not only played an integral role in the Republic of Korea (ROK)'s meteoric rise since the 1970s, but also has shaped the South's diplomatic and economic expansion since the early 1990s. As an energy-poor country with an energy-intensive economy, the ROK is forced to import the vast majority of its energy sources. It must do so from the distant energy hubs of the Middle East and Central Asia, putting supply at risk to stability in these areas, and compete with equally energy-hungry neighbors such as China and Japan. Yet, as South Korea seeks to diversify its energy sources away from the Middle East, it has comparative advantages relative to its Northeast Asia neighbors and competitors further afield: the ROK represents a recent economic miracle, smaller and less threatening than China, and boasts aggressive conglomerates not put off by high-risk, long-term investments.

This paper first explores South Korea's energy security and its internal catalyst for diverse ties with Central Asia, and then focuses on Central Asia as an arena where the ROK's diplomacy and business are closely linked with its energy interests. Finally, I contextualize South Korea's "New Silk Road" to Central Asia in its comparative advantages with two brief case studies of Kazakhstan and Uzbekistan.

II. ENERGY SECURITY

Overview

Although President Richard Nixon spoke of "energy independence" in 1973, energy security now implies not the practically unattainable energy autarky, but stability and predictability of supply and demand. For consuming countries, this means reliable supply at reasonable prices, and for exporting countries, this means "sufficient access to markets and consumers to justify future investment," according to Daniel Yergin's 2006 *Wall Street Journal* article, "What Does 'Energy Security' Really Mean?" The principles and policies underpinning energy security are (1) mitigating disruptions like the 1973 oil embargo; (2) avoiding any political and economic instability that strained the Western alliance in the

1970s; (3) diversification, “in terms of both sources of oil and in increased use of other energy supplies,” Yergin emphasizes; (4) energy efficiency; (5) long-term investment frameworks; and (6) increased cooperation to protect increasingly complex supply chains. Two critical chokepoints to these congested supply chains are the sea lanes through the Strait of Hormuz, which carry 20 percent of the world’s oil supplies, and the Strait of Malacca, which transport “80 percent of Japan’s and Korea’s oil, and half of China’s,” according to Yergin. These primary energy resources are essential to economic activity and thus are a key cause for ROK vulnerability, due to its domestic energy trends outlined below.

South Korea: Consumption and Production

Between the 1960s and 1990s, South Korea’s supply-focused energy policies were aimed at “providing stable, reliable supplies of energy at low prices to enhance industrial competitiveness, fuel economic growth, and contain inflation,” according to Hoseok Kim, Eui-soon Shin, and Woo-jin Chung in the 2011 study, “Energy Demand and Supply, Energy Policies, and Energy Security in the Republic of Korea.” These policies were implemented mainly through centrally planned energy markets and government-controlled enterprises. This interventionist model drove industry, and then export-led growth, resulting in a “relatively energy-intensive economic structure” and environmental issues, according to the same study. The ties between authoritarian regimes (and even democratic governments after 1988) and South Korea’s *chaebol* conglomerates, and the vulnerabilities and opportunities the ties bring about, are the subject of further analysis in the context of Central Asia.

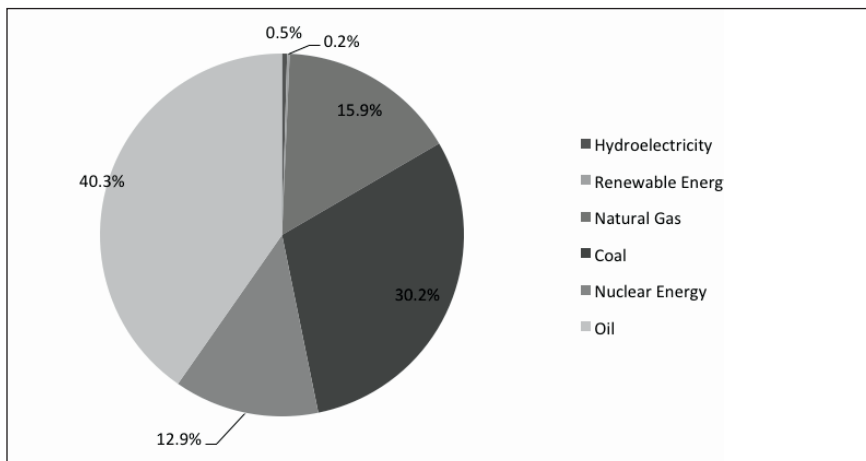
Korea’s first policy paper specifically addressing energy security was the first *National Basic Plan for Energy* in 2008, which offered a 20-year vision of the future of Korea’s energy resources. According to the Ministry of Knowledge Economy, the stated objective of *National Basic Plan for Energy (2008-2030)* is to “stably secure, introduce, supply and manage energy. [sic]” The *National Basic Plan for Energy (2008-2030)* explicitly links energy security and economic growth by identifying new “demands for manufacturing industry, service industry, and infra industry in countries having resources.” The plan lays out “custom-made” resource diplomacy for developing overseas resources, but identifies Korean energy enterprises’ relative inexperience compared to competitors from the U.S., France, and other developed countries. This inexperience is also revisited later in the discussion on South Korea’s comparative advantage.

The contents of the *Basic Plan* highlight the yawning discrepancy between the ROK’s consumption trends and its domestic resources or, more realistically, its means. South Korea’s energy consumption has risen sharply despite minimal population growth. According to Kim *et al.*, since 1994 industrial electricity use

has doubled while electricity consumption in the residential/commercial sector tripled—a fact that indicates that a decline in efficiency is partially to blame for the ROK's increase in energy appetite. However, the major contributing factor to rising energy consumption has been the increasing importance of manufacturing in South Korea's economy. In 1980, manufacturing accounted for 17.4 percent of total gross value added to Gross Domestic Product (GDP), increasing to 32.5 percent by 2008. Since 1998, the industrial sector has accounted for 55 to 58 percent of total energy demand.

Unfortunately the ROK has meager domestic energy sources to feed this consumption. Traditionally South Korea has imported relatively cheap coal mainly from Australia and almost all of its oil (over 80 percent, which provides 40 percent of its primary energy) and gas from the politically-volatile Middle East. Although South Korea's consumption of nuclear energy constitutes over 5 percent of total world nuclear energy consumption, the ROK is still highly dependent on coal and natural gas as shown in Figure 1, both of which the ROK must import via congested sea lanes. Unlike China, which in December 2009 opened the first section of a pipeline from Turkmenistan, Afghanistan, and Tajikistan through which Turkmenistan will pump 30 billion cubic meters of gas, the Korean peninsula is geographically distant from energy sources, even those in Siberia. Moreover, any pipeline would have to pass through North Korea—posing political challenges and a new potential vulnerability for the South.

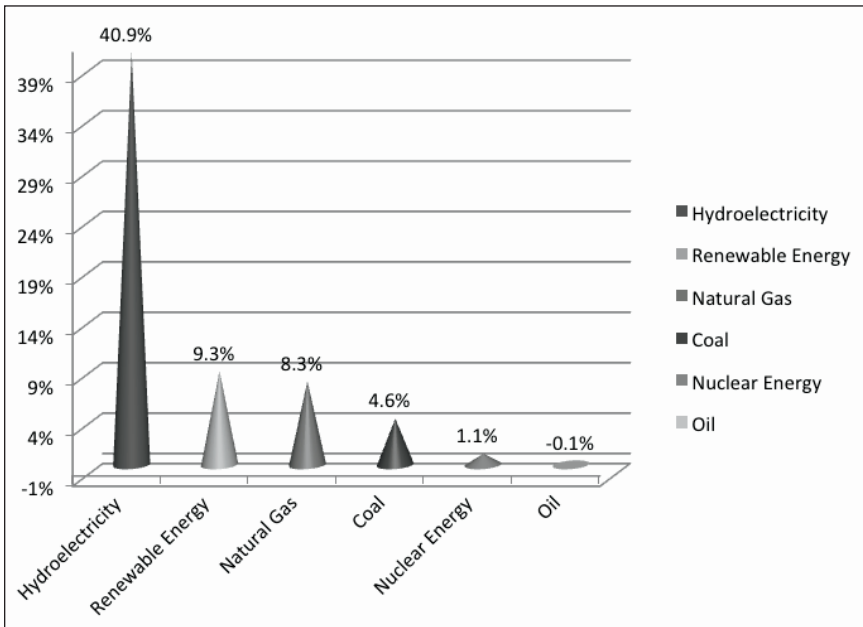
Figure 1. South Korea's Energy Resources: Share of Total Energy Consumption by Type



Source: *BP Statistical Review of World Energy June 2012*

Thus the ROK is almost entirely and increasingly dependent on imports for its overall energy. According to Kim *et al.*, in 1980 it imported 60 percent of its total energy, increasing to 97 percent by 2007. Energy imports peaked at 97.6 percent in 2000. As the overall costs of energy rise, it may become economically viable for South Korea to tap its own minimal coal reserves and invest further in high-cost renewable energy projects such as wind farms. Another possibility is that South Korea may win access to oil resources along maritime boundaries with China. In the meantime South Korea has managed to make some progress on energy efficiency: according to ABB Group’s *South Korea: Energy Efficiency Report*, in 2008 the ROK revised tax structures for certain fuels to incentivize renewable fuel use and fuel-efficiency in vehicles, causing a 3.7 percent decline in industry energy intensity and a 1.5 percent decline in annual intensity of primary use between 2000 and 2009. Unfortunately, however, as shown in Figure 2, these figures still pale in comparison to the latest figures of year-on-year increases in energy consumption.

Figure 2. Percentage Change in Consumption by Energy Source, 2010 to 2011



Source: BP Statistical Review of World Energy June 2012

Korea and its neighbors have no choice but to compete for these key resources in the far-flung Middle East and Central Asia, as well as Africa and South America. In response to this growing resource competition and other threats to its energy security, the ROK has strived to diversify its energy sources in geographic provenance and type (Crude oil and oil products as a percentage of primary energy supplies declined from 58 percent in 1981 to 42.2 percent in 2009). As for sourcing energy from different geographical locations, the ROK has sought to cooperate with states on developing oil and gas resources at all stages of the supply chain, from exploration to development, and has participated in Northeast Asian energy cooperation on research projects for pipelines, natural gas supply, electricity transmission, and coal mine development. This paper presents case studies of such projects and agreements in Kazakhstan and Uzbekistan.

In sum, the three core elements of the ROK's energy security are: (1) dependence on imported oil, coal, and gas due to a lack of domestic resources; (2) disproportionate reliance on the Middle East as identified in Kent Calder and Viktoriya Kim's academic paper, "Korea, the United States, and Central Asia: Far-Flung Partners in a Globalizing World," published by the Korea Economic Institute in December 2008; and (3) intensifying competition with its neighbors to secure energy resources. Central Asia is crucial to Korea as it addresses all three of these vulnerabilities through diversification towards gas and nuclear power and diversification away from the Middle East.

III. CENTRAL ASIA

Resources

Central Asia is rich in natural resources; it is estimated to have 3 percent of the world's crude and 6 percent of the world's gas reserves. Specifically, according to Myers Jaffe's 1998 publication, while Turkmenistan has significant reserves of natural gas, 80 percent of the region's oil reserves are in Kazakhstan. Kazakhstan has almost 40 billion barrels of oil, 33.6 billion tons of coal, and 12 percent of the globe's proven reserves of uranium. As shown in Table 1, Uzbekistan also has some natural gas and 2 percent of uranium reserves. John Daly wrote in "Central Asia's Energy Chessboard" published by *World Political Review* in 2008 that Kyrgyzstan and Tajikistan are poor in hydrocarbons but have hydroelectric potential. Significantly, the *BP Statistical Review of World Energy June 2011* shows that the fraction of global proven oil reserves in Eurasia also increased by 2 percent between 1990 and 2010, in part thanks to exploration and extraction projects joint-driven by Northeast Asian companies and national energy corporations.

Table 1. Central Asia States' Energy Reserves and Production

		Kazakhstan	Turkmenistan	Uzbekistan
Proven oil reserves	Volume (billion barrels)	39.8	0.6	0.6
	Percent world total	2.9%	<0.1%	<0.1%
	Percent world production	2.1%	0.3%	0.1%
Proven natural gas reserves	Volume (trillion cubic meters)	1.8	8.0	1.6
	Percent world total	1.0%	4.3%	0.8%
	Percent world production	1.1%	1.3%	1.8%

Source: *BP Statistical Review of World Energy June 2011*

Particularly as events such as the Arab Spring shake long-standing Middle Eastern authoritarian regimes, the land-locked petro-states of Central Asia are objects of increasing interest by energy-hungry economies like China, Japan, and South Korea. However, contingencies—such as Moscow's lingering influence, the prospect in the near future of political instability through the disintegration of authoritarian power, and vulnerability of access to the sea-lanes via pipelines that pass through other equally or more opaque states—may deter potential investors.

Significance for South Korea

Central Asia not only provides imports of oil, gas, and uranium which are key to Seoul's ambition of energy supply security but is also a market with promising potential growth for the ROK. The region is abundant in natural resources used in both energy supply and in manufacturing. According to Oxford Analytica's *Central Asia/South Korea: Resources Are but One Tie* in 2009, "Central Asia ranks first in terms of proven reserves of zinc, tungsten, and barite and second in terms of silver, lead, and chromium... [and] holds substantial coal, gold, and uranium." South Korea trades these commodities for plastic manufactures, consumer goods, electronics, automobiles, and heavy machinery. In the future, the ROK hopes to also target Central Asia for its growing defense export industry. Lastly, the relative underdeveloped state of these countries' economies and their authoritarian governments make them prime targets for aid and the ROK's growth model. According to Oxford Analytica's 2009 report, the complementarities of this three-pronged strategy (diplomacy, trade, and aid) are undergirded by Korea's motivation to "increase its global diplomatic voice to a level commensurate to its economic position."

IV. SOUTH KOREA'S NEW SILK ROAD

Aid and Memoranda of Understanding have been the two major channels of the ROK's government initiatives to address its energy needs through relations with Central Asia, especially the Central Independent States (CIS: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Uzbekistan). Korea opened embassies and Cultural Centers in many CIS capitals soon after the Soviet Union's collapse and steadily increased interaction from 1996. According to Lee Joon-beom, chief of the Planning Division at the Korean National Oil Corporation (KNOC), South Korea was at first more interested in Russian resources and business, but became discouraged by the unexpected license expirations for foreign firms after President Vladimir Putin came to power in 1999. As a result Seoul decided to follow firms like LG and "utilize [the *chaebol's*] advantage in Central Asian countries."

Aid

Although the ROK was a net recipient of aid until the 1990s, it began disbursing financial aid after establishing the Economic Development Cooperation Fund (EDCF) in 1987 and the Korea International Cooperation Agency (KOICA) in 1991. A Ministry of Foreign Affairs and Trade (MOFAT) mandate issues aid in the form of grants through KOICA, while loans dictated by the Ministry of Strategy and Finance are provided by the EDCF. In 2010, Korea finally acceded to the Organization for Economic Co-operation and Development (OECD)'s Development Assistance Committee (DAC) and ratified a legal basis for the Overseas Development Aid (ODA) it had already been providing for over 20 years. Although the ROK's volume of aid is still relatively modest for an OECD country, subsequent to a 2008 review it identified 26 priority partners and steadily increased aid volume up to \$1.321 billion through 2011. Specifically, the proportion of total aid allocated by KOICA to Eastern Europe and Central Asia rose by 1 percent in 2010 up to 5.7 percent in 2011; Azerbaijan and Uzbekistan (rich in oil and gas respectively) were the top recipients, as shown in Table 2. The sector receiving the bulk of aid from the ROK (42.9 percent) was energy and industry, with education a distant second at 23.6 percent. Azerbaijan even received the second most energy and industry sectoral aid from KOICA worldwide in 2011.

Table 2. Top 5 Eastern Europe/CIS Recipients of KOICA Aid in 2011

Rank	Country	Disbursement (millions KRW)	% Region's Total Aid Disbursement
1	Azerbaijan	11,663	45.5
2	Uzbekistan	7,288	28.4
3	Armenia	1,514	5.9
4	Kazakhstan	1,512	5.9
5	Turkey	1,319	5.1
	Total	23,296	90.9

Source: *Korea International Cooperation Agency: Annual Report 2011*

In 2011, the top Central Asian recipients were Kazakhstan and Uzbekistan (Azerbaijan is in the Caucasus, Armenia in the Balkans, and Turkey in Eastern Europe). These two resource-rich states are additionally interesting case studies because South Korean involvement in Uzbekistan has been mainly government-led, while in Kazakhstan it has been driven by private firms. Central Asia and its energy and industrial sectors are becoming increasingly important targets for ROK aid. Moreover, Korea has been criticized, notably in the OECD DAC Peer Review, for its lack of transparency regarding its choice of priority countries and regarding tying aid to trade. Consequently there are strong indications that multiple national interests, including energy security, are part of Seoul's aid disbursement calculations.

Diplomacy

In addition to economic incentives for collaboration, Seoul also employs diplomatic soft power to foster strong relations with Central Asia. In November 2007, the first Korea-Central Asia Cooperation Forum was held in Seoul under Prime Minister Han Deok-su and Minister for Foreign Affairs and Trade Song Min-sun. The forum welcomed government officials, industry representatives, and academics to establish regular annual dialogue and promote the Korean development model. In July 2012, the Ministry of Foreign Affairs and Trade again hosted the sixth annual South Korea-Central Asia Cooperation Forum in Seoul. Over 100 policymakers, businesspeople and scholars from Korea, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan took part in various discussions on the 20th anniversary of diplomatic relations between South Korea and these former Soviet Union republics.

In particular, President Lee Myung-bak has focused more on Central Asia than his predecessors. Soon after his inauguration in February 2008, he called for a refocus of foreign policy in the New Asia Initiative during his tour of Southeast Asia in March 2009. He then launched the “New Silk Road Diplomacy” program on a visit to Central Asia in May 2009. The initiative upgraded Kazakhstan and Uzbekistan to strategic partners and led to the signing of Memoranda of Understanding to develop Central Asian resources, build power plants, and establish Internet networks in Kazakhstan. President Lee even revisited the region during his term in August 2011. In the interim, many high-level exchanges took place with all six Central Asian republics (Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan). Kazakhstan in particular has hosted ROK ministers from the following ministries: the Ministry of Environment and the Ministry of Knowledge Economy in October 2010; the Ministry of Foreign Affairs and Trade in December 2010; the Ministry of Culture, Sports, and Tourism in January 2011; and the Ministry of Strategy and Finance in May 2011. According to Linda Blachly’s 2010 article for *Air Transport Online*, the aims of Seoul’s tailored “cooperation programs” with Central Asian states are to secure natural resources and to build industrial infrastructure in the region, which supports Korean energy, trade, and cultural interests and paves the way for Korean construction, manufacturing, and telecommunication firms in the region.

However, Seoul’s aid and bilateral agreements have often followed major business deals for Korean conglomerates in Central Asia. Specifically, President Lee’s first visit in 2009 secured three high-profile, high-investment deals, but only after long-standing *chaebol* presence in the region. According to Oxford Analytica’s 2011 report, *Central Asia: Seoul’s Incremental Engagement Pays Off*, these were, “a 4.0 billion dollar agreement to build a petrochemical complex in Atyrau (western Kazakhstan); another 4.0 billion dollar contract to build two power plants in Balkhash (eastern Kazakhstan)...; and a 4.1 billion dollar deal to develop Uzbekistan’s Surgil gas field.” The next section discusses this catalytic force of Korean firms, which represents one of Korea’s comparative advantages when dealing with Central Asian states.

V. THE ROLE OF THE CHAEBEOL

Korea’s diplomacy and government funding in the region has either followed or simultaneously complemented its major firms’ economic expansion into the former Soviet states. According to Oxford Analytica’s 2011 report, *chaebol* (industrial conglomerates) “offer a number of needed services across business sectors... [ensuring] trade flows by handling multiple sides of each transaction, including exporting capital equipment, financing, supplying infrastructure and even finding export markets [*sic*].” Their “formidable” marketing skills and

ability to “efficiently procure and assemble the specialized components and services required to build and operate large-scale” projects mean that *chaebol* are highly competitive in infrastructure and resource-extraction businesses—enterprises essential to energy security for South Korea and to development for Central Asian states. However, during the 1980s despite President Roh Tae-woo’s Nordpolitik policy, South Korea “was almost wholly excluded, in both business terms and diplomatically” from Central Asia due to Soviet restrictions. Subsequently, in the 1990s the Korea Trade-Investment Promotion Agency (KOTRA) significantly encouraged *chaebol* interest in the region for both post-cold war political interests (i.e., further isolating North Korea) and commercial interests.

Particularly in Eastern Europe and Central Asia, “*chaebol* seek ‘first mover’ advantage over more cautious investors,” according to Oxford Analytica’s 1997 report. For example, in June 1997, Daewoo purchased a 40 percent stake in Kazakhtelecom for \$1.37 billion. Daewoo also built a new automobile factory in Uzbekistan and was the fourth largest seller of cars in CIS and Eastern Europe at 165,000 vehicles (after AvtoVAZ of Russia, Volkswagen, and Fiat). According to Business Monitor International in 2012, the *chaebol* calculate that “making early, high-profile investments creates political goodwill [with the region’s authoritarian governments] which can be used to facilitate further activities.” For example, Daewoo International, the diversified conglomerate that emerged from the collapse of the Daewoo Group in the early 2000s, is a partner in nine upstream permits in Myanmar, Uzbekistan, Vietnam, Peru, and Oman. The *Korea Herald Online* wrote in 2012, “A multitude of state-run and private Korean businesses including Samsung, LG, and Hyundai Engineering are building power and chemical plants, renovating refining facilities or drilling gas in Kazakhstan, Uzbekistan and Turkmenistan [*sic*].”

While not all of these *chaebol* investments in Central Asia have been energy-related, such large investments are vital to economic growth, both directly and indirectly facilitating South Korea’s regional resource acquisition. Thus, *chaebol* investments, KOICA aid, and diplomatic overtures are mutually reinforcing. Business Monitor International even went so far as to claim that, in its quest for energy security, the ROK has developed a “standard strategy” offering “development assistance to poor countries in return for access to their hydrocarbon reserves” both through public and private channels.

VI. TWO CASE STUDIES: INTERDEPENDENCE AND KOREA’S COMPARATIVE ADVANTAGE

The above sections highlight two elements of Korea’s comparative advantage: (1) its recent economic rise making it a non-threatening and yet relatively

generous donor, and (2) its conglomerates' ability to invest in long-term, potentially high-risk, multi-sector projects that can enhance energy security. Indeed, the most significant gains for Korea's trade and energy security have been won through coordination between Korea's two main actors in Central Asia, the government and the *chaebol*. Trend D. Azizov wrote in "Korea Willing to Continue Contributing to Central Asia's Development" (2012) that "Trade turnover between Korea and Central Asian countries increased by 180 times up to \$2.7 billion in 1992-2010." According to Lee of KNOC, diplomatic and business efforts tend to be complementary: either firms initiate commercial negotiations and diplomacy takes over when agreeable terms cannot be reached, or inter-government agreements are signed and must be implemented by private companies.

Two states that naturally lend themselves to comparison are oil-rich Kazakhstan and gas-rich Uzbekistan: their interaction with South Korea has been largely firm-led or government-led respectively. In 2004 and 2005, President Roh Moo-hyun visited Kazakhstan and Uzbekistan to secure oil, gas, and uranium energy sources. In May 2011, the Ministry of Strategy and Finance announced that Kazakhstan and Uzbekistan (the largest and most resource-rich countries in the region) would garner comprehensive cooperation packages while the smaller states would benefit from deal-by-deal cooperation. In May 2008, Prime Minister Han Seung-soo led a delegation on a ten-day trip to Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan to increase South Korean corporate awareness of potential partnerships and facilitate lucrative agreements.

Uzbekistan

Korea is Uzbekistan's fourth-largest trading partner. Their annual trade turnover increased 30 percent between 2009 and 2010 to \$1.5 billion and investment totaled over \$1 billion. South Korea has invested over \$5 billion in Uzbekistan, primarily in Navoi's free industrial economic zone with Hanjin's intercontinental logistics center. Hanjin, the parent company of Korean Air, has invested in a hub and opened a new cargo terminal there in the hopes that it will become the focus of the modern day "Silk Road," anticipating increases in goods and people-to-people exchanges. These investments in infrastructure, specifically logistical infrastructure, are also in the interest of extraction of energy resources because they will make the supply chain and distribution processes more efficient and effective.

There have also been governmental exchanges between Uzbekistan and South Korea. In November 2011, the fifth annual South Korea-Central Asia Cooperation Forum was held in Tashkent, Uzbekistan. Han Seung-soo's visit in 2008 resulted in a prime-ministerial agreement to export 2,600 tons of uranium

to South Korea, while the companies Uzbekneftegaz and Kogas signed a \$1.8 billion agreement to explore the Surgil gas field. During President Lee Myung-bak's May 2009 visit, KNOC and Uzbekneftegaz signed a Memorandum of Understanding for exploration and production rights in five fields in the eastern Namangan-Tergachi and Chust-Pap regions, estimated to hold 67 million barrels and 13.1 billion cubic meters of oil and gas reserves. Business Monitor International writes, "In return for upstream stakes, KNOC has agreed to help finance infrastructure projects." When President Lee visited in August 2011, he launched a \$2.6 billion investment project to construct the Ustyurt gas chemical complex.

According to Lee of KNOC, it was these "diplomatic relations [that] initiated energy projects" in Uzbekistan. Unfortunately, the projects first proposed during Kim Dae-jung's administration have been less successful than extraction and production efforts in Kazakhstan, chiefly for geological reasons. (With reserves deeper than 3000 meters underground, even if drilling were successful oil may not flow freely).

Kazakhstan

Korea is Kazakhstan's fourteenth-largest trading partner with annual trade steadily increasing. Between 1995 and 1996, trade between the ROK and Kazakhstan more than doubled from \$135 to \$300 million, which accounted for approximately 3 percent of Kazakhstan's total trade volume, according to a 1997 article from the *Korea Herald*. Between 2009 and 2010, total trade rose by 50 percent reaching \$760 billion. By 2009, South Korea had invested \$976.5 million in Kazakhstan. Kazakhstan received significant Foreign Direct Investment (FDI) from Samsung in copper and gold, from Daewoo in electronics, telecommunications, and infrastructure, and from LG in televisions. In 2007, the Korean Consortium for the Caspian Oil Project, which includes SK, LG, Samsung, and Daesung, acquired a 2 percent share in the Zhambyl offshore block in cooperation with the company Kazmunaigas. In May 2008, Prime Minister Han's delegation negotiated agreements for Samsung to construct a \$4.5 billion plant and for KNOC to acquire a 27 percent stake in Kazakhstan's Zhambyl oil block.

LG funding four projects, before requesting government backing, by proposing joint-efforts with KNOC exemplifies the complementarity between business and diplomatic enterprise in Kazakhstan. Similarly, Lee of KNOC asserted that it was only after the *chaebol* had initiated projects that "diplomatic relations between South Korea and Kazakhstan allowed KNOC to have even more opportunities."

VII. CONCLUSION

Energy resources are key to economic growth and therefore to domestic stability. The search to secure diverse energy supplies near and far is never-ending; for example, in 2012, Daewoo, STX, and Australia's Woodside Petroleum initiated exploration for oil and gas off the Korean peninsula's east coast. Also in 2012, the ROK was in talks with Russia about the possible construction of two pipeline routes (one each for oil and gas) overland via North Korea or undersea direct to the South which would "dramatically alter Korea's hydrocarbons equation... currently based on expensive sea cargoes," according to Business Monitor International.

Central Asia is therefore a natural partner for the ROK to mitigate energy insecurities through efficiency, nuclear power, and renewables at home, while diversifying resources and geographic sources overseas. The complementarity between these energy security interests and economic growth is embodied in the dual progress of securing the necessary resources for its own economy while developing consumer markets for future exports. The positive externalities of diplomacy and business in Central Asia for Korea are (1) mitigating disruptions to its energy supply chains; (2) avoiding political and economic instability in its energy suppliers; (3) diversification of geographic provenance and type of its energy sources; and (4) long-term investments in states that have the potential to become strong trading partners.

In competing with other Northeast Asian energy-hungry giants like China and Japan, the ROK must rely on its comparative advantage to continue to garner major extraction, operation, infrastructure, and industrial projects. Not only does South Korea offer an example of Asian development more broadly applicable than China's, but also its government and businesses are less interested in addressing domestic political corruption or authoritarianism than Western investors. Thus Korea's comparative advantage stems from (1) its economic development model; (2) its octopus-like *chaebeol*; (3) its small size, allowing it to escape neo-colonial criticism; (4) its decision to tailor its approach to each country; (5) its possible perception as a balancing act against China's growing influence; and (6) its image of a state that places economic ties over political influence. In particular, the *chaebeol*'s all-round expertise predisposes them to "fulfill the wide-ranging needs of post-communist economies," Oxford Analytica emphasized in 1997.

The three concerns of the ROK's energy security are (1) dependence on imported oil, coal, and gas due to a lack of domestic resources; (2) disproportionate reliance on the Middle East; and (3) intensifying competition with its neighbors to secure energy resources. Korea's interest in and ties to Central Asia revolve

around three themes: energy, trade, and diplomacy. Broader challenges facing Korea and its energy security are the risks associated with potential reunification and with the growing involvement, or at least interest, of civil society at large in nuclear energy post-Fukushima. In recent years, external and internal factors—such as supply security and environmental concerns—have led the ROK to redraw its energy policies and focus its diplomatic and commercial efforts into ties with Central Asia: in September 2012, on a visit to Astana, Kazakhstan, President Lee Myung-bak stated, “By reducing this dependence [on the Middle East] through energy cooperation with Central Asia, South Korea will improve its energy security.” The ROK’s New Silk Road to Central Asia, in particular Kazakhstan and Uzbekistan, has been clearly charted; progress thus far an economically and strategically mutually beneficial journey.

APPENDICES

Table 3. ROK Energy Consumption – volume, percentage, and change 2011 over 2010

Type of Energy	Units	2011	Share of Total Consumption	Change 2011 over 2010
Oil	Million Tons	106	40.29%	-0.10%
Coal	Million Tons Oil Equivalent	79.4	30.18%	4.60%
Natural Gas	Million Tons Oil Equivalent	41.9	15.93%	8.30%
Nuclear Energy	Million Tons Oil Equivalent	34	12.92%	1.10%
Hydroelectricity	Million Tons Oil Equivalent	1.2	0.46%	40.90%
Renewable Energy	Million Tons Oil Equivalent	0.6	0.23%	9.30%
Sum		263.1	100.00%	

Source: *BP Statistical Review of World Energy June 2012*

Map 1. Central Asia Gas Pipelines



Source: <http://criticalppp.com/archives/16404/central-asia-map>



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