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【論 説】

Four Major Inter-Amur Projects between Russia and China: From a River of Barrier to a River of Cooperation?

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I Introduction

The Amur River constitutes the world longest river boundary. It geopolitically separates the two giants of the world, i.e., Russia and China from each other. In the age of Sino-Soviet controversy, violent clashes occurred along this river. In such a sense, the Amur River was a river of barrier. Since the perestroika in the Soviet Union in the late 1980s, however, it has been changing into a river of contact and cooperation.

Since the collapse of the Soviet Union in 1991, the declining population of Siberia and Far East has become an inevitable trend. On the other hand, Chinese economy has been rapidly growing with an associated population growth. The northeast China was not an exception of such a trend. Tîrnoveanu (2016) points out that there are “4.3 million Russians facing around 109 million Chinese” in the Amur River watershed. This significant imbalance of population centered on Northeast China is countered by the enormously rich stock of national resources of Siberia and Far East in Russia.

Between the two countries, the decades long border conflicts ceased. The Treaty for Good-Neighborliness, Friendship and Cooperation was signed in Moscow by Jiang Zemin of China and Vladimir Putin of Russia, on 16 July, 2001. This has been promoting various kinds of economic cooperation programs between the two countries.

In the study of postmodern analytical approaches to limology, Vladimir Kolossov, the Russian geographer, discussed the notions of ‘barrier function of boundary’ or ‘boundary’s barrier functions’ versus ‘cross boundary cooperation’ or ‘border cooperation’ (Kolossov 2006). When we look at the Amur River as a boundary, we can paraphrase these notions into ‘a river of barrier’ versus ‘a river of cooperation’. In this paper, we then present our observation of the changing perspectives of the Amur River from the river of barrier in the past to the river of cooperation in the recent years.

We analyze four major projects of Russia-China cooperation across the Amur River. By the four projects, we mean (1) the China spur of ESPO oil pipeline, (2) the Power of Siberia gas pipeline, (3) the Nizheneleninskoe-Tonjiang railway bridge, and (4) the Blagoveshchensk-Heihe road bridge. (1) and (2) are the pipelines under the Amur River bed while (3) and (4) are the bridges over the its flow.

The composition of this paper is as follows. Section I is devoted to characterize

the general trend of eastern Russia and northeast China. Section II describes the study area and the method of research. Section III is describes a brief history of the shift of Russian policy to the East. Section IV presents statistical analysis of Russia as a whole and its eastern regions in the context of Russian-Chinese economic links in last decades. Section V shows case studies of the oil and gas pipelines projects (1) and (2) across the Amur River. Section VI shows case studies of railway and road bridges projects (3) and (4) across the Amur River. Section VII is the special study on the iron ore mine development which has promoted the construction of the above bridge (3). Section VIII summarizes the paper with concluding remarks.

II Study Area, Data and Method of Research

Our study area is the two subjects in Far East Economic Region of Russian Federation across the Amur River: Amurskaya Oblast and Jewish Autonomous Oblast (JAO hereafter). Their southern border along the Amur river coincides with the state border of Russia and China. The Amurskaya Oblast with total area of 361,900 km² and population of about 869,600 people has the longest (1,250 km) among all regions of the Russian Federation land border with China. JAO is the smallest subject of the Russian Federation in the Russian Far East. Its total area is 36,300 km² and population is about 185,500 people.

Our research method is three-fold. Firstly, field observations have been made either by the two authors together or the single author. Secondly, statistical data were collected and analyzed. Thirdly, literature survey extensively has been practiced.

As to the field observations, the co-authors (Litvinenko and Murota) had visited Amurskaya Oblast and JAO twice. In September 2007 we visited Blagoveschensk and Biribidzhan. In August 2014 Litvinenko visited Blagoveschensk and

Magdagachinskiy rayon in Amurskaya Oblast, Birobidzan and Obluchenskiy rayon in JAO, and Heihe in Heilongjiang Province, China. We also visited the ESPO pipeline laying area near Neryungri, Sakha Republic in August 2010. In August 2014 during the trip to JAO, Litvinenko visited the Kimkan & Sutara mining and processing plants and made the interview with company officials.

Statistical method was used for the analysis of trend of economic relationship between Russia and China, Russian Far East economic region, including Amurskaya Oblast and JAO, and China. We used official data of Russia's customs statistics and data of the Russian Far Eastern customs administration. Data of administrations of Amurskaya Oblast and JAO were also analyzed.

III Shift of Russian Policy to the East

Alteration of Russian-Chinese relations occurred at the beginning of the 21st century after the coming of President Vladimir Putin command to the power. Russia's pivot to China was caused by several reasons: (1) awareness of the importance of strengthening the East Asian vector in the foreign policy to balance the West and the East; (2) necessity of development of underdeveloped Siberia and the Far East regions by attracting of Chinese investments; (3) the opportunity to meet the people's demand for cheap consumer goods by Chinese import; (4) the need to develop partnership with China in APEC, ASEAN and the Shanghai Cooperation Organization (SCO) for the strengthening of Russia's economic presence in Central Asia (Самойлова 2011).

The conclusion of the Treaty on Good-Neighborliness, Friendship and Cooperation between the two countries¹⁾ on 16 June 16, 2001 became the most

1) <http://www.kremlin.ru/supplement/3418> (Договор о добрососедстве, дружбе и сотрудничестве между Российской Федерацией и Китайской Народной Республикой 16 июля 2001 года) (Retrieved December 17, 2016).

important stage of collaboration within the framework of the strategic partnership. The priority of enhancing Russian-Chinese strategic partnership in all fields and the need to adjust the volume and quality of economic interaction with the high level of political relations have been stressed in Russia's foreign policy concept approved in 2008. Important steps towards strengthening of economic cooperation at the regional level was the approval by the heads of Russia and China on 23 September 23, 2009: the Program of cooperation between the Russian Far East and Eastern Siberia of Russia and northeast regions of People's Republic of China for 2009-2018²⁾. The Program identified a list of key cooperation projects for each region.

IV Russian-Chinese Economic Links in the Last Decades: Statistical Analysis of Russia as a Whole and Eastern Regions

China is the largest economic partner of Russia and its share in Russia's foreign trade turnover is growing up for more than ten years (Fig.1).

Russian-Chinese economic cooperation in the post-Soviet period can be divided into two periods. The first period (1992-1999) was characterized by the establishment of commercial relationships, a predominance of Russian exports on Chinese imports, a large share of barter transactions, and fluctuations in trade volumes. The second phase (from 2000 to the present) is characterized by a dynamic development of trade relations after the consolidation of bilateral political relations. Since 2007, imports from China began to dominate over Russian exports (Fig.2). The export of equipment and military products has decreased, while the share of natural resources increased. The cooperation in the energy sector including the export of Russian oil and gas has become the most important part of collaboration.

2) http://www.russchinatrade.ru/assets/files/ru-ru-cn-coop/programm_coop.pdf

(Программа сотрудничества между регионами Дальнего Востока и Восточной Сибири РФ и Северо - Востока КНР на 2009–2018 гг.) (Retrieved Decemer 16, 2016).

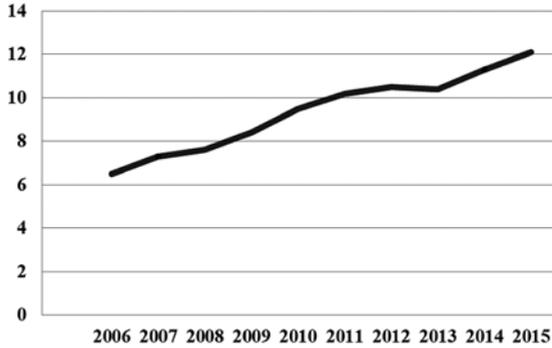


Fig.1 The share of China in Russia's foreign trade turnover (%)

Source: [http:// www.stat.customs.ru](http://www.stat.customs.ru) (Retrieved November 12, 2016).

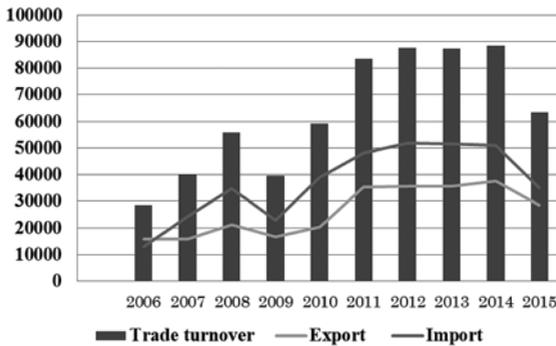


Fig.2 Russia's foreign trade turnover with China (US million dollars)

Source: [http:// www.stat.customs.ru](http://www.stat.customs.ru) (Retrieved November 12, 2016).

The annual growth of Russia's trade with China accounted for 25-41% in 2002-2008, but in 2009 the bilateral trade decreased by 31% (Fig.2). In 2010-2014 one could observe the growth of Russian-Chinese mutual trade, and in 2015 – its decrease (Fig.2).

The slowdown of bilateral trade in 2015 was due to a number of factors formed in 2014, the effect of which fully manifested in 2015. Among them:

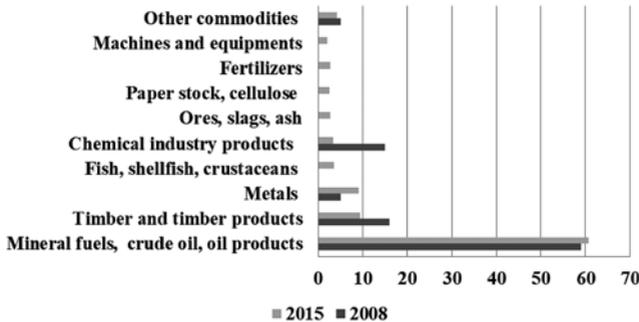


Fig.3 Commodity structure of Russian exports to China (%)

Source: <http://www.stat.customs.ru> (Retrieved November 12, 2016).

(1) common geopolitical tensions, the introduction of Western countries' economic sanctions against Russia in connection with situation in the Ukraine, (2) a slowdown in economic growth in both countries, (3) the fall in world prices for energy resources and commodities comprising more than 70% of Russian exports to China, (4) reduced purchasing power of Russian consumers of Chinese products due to sharp exchange rate fluctuations of the ruble against major world currencies, including Chinese yuan³⁾. In addition to the reasons mentioned above, experts including Цыплаков (2015) pointed out such a reason as a slow and challenging China's transition to a new relatively less material-intensive and energy-intensive model of economic development. However, Russian exports remains focused on an extensive model of the Chinese economy with growing demand for raw materials and energy resources.

In last decade the mineral fuels, crude oil and oil products steadily dominated in Russian exports to China (Fig.3). Despite some changes, overall, Russia continues

3) Аналитическая справка о российско-китайском торговом сотрудничестве в 2015 году (2016) http://www.ved.gov.ru/exportcountries/cn/cn_ru_relations/cn_ru_trade/ (Retrieved November 10, 2016).

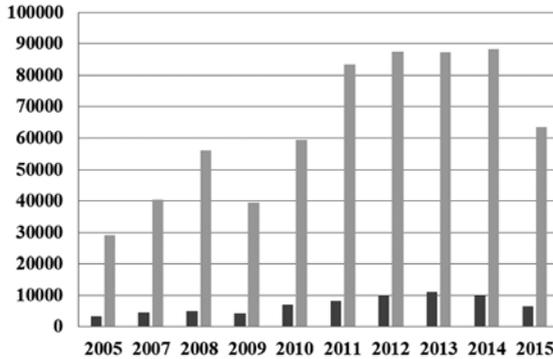


Fig.4 Foreign trade turnover of the Far East economic region of Russia with China in comparison with the Russian average (US million dollars)

Source: <http://www.stat.customs.ru> (Retrieved November 12, 2016), <http://www.dvtu.customs.ru> (Retrieved December 10, 2016).

to export raw materials to China.

Russian Far East

China is the main foreign trade partner for regions of the Russian Far East due to their geographical and geopolitical location. From 2005 to 2015 the trade turnover of the Far Eastern economic region of Russia with China has increased 1.8 times (see Fig.4), and it has risen more than five times during the period of 2000-2015.

The overall trend of foreign trade turnover of Far East economic region with China repeats the nationwide situation, but not always. The Russian Far East, with even more raw material orientation of exports and a lower demand for commodities from China due to smaller population, more sensitively reacted to the political and economic challenges since 2014. Similar to the situation in the entire Russia, the Far East exports to China in 2015 was represented by raw materials⁴⁾,

4) <http://www.dvtu.customs.ru> (Федеральная таможенная служба, Дальневосточное таможенное управление Статистика внешней торговли и статистика взаимной торговли) (Retrieved December 10, 2016).

but the share of biological resources (fish and shellfish in particular) was bigger, and mineral ones was smaller than the national level.

Amurskaya Oblast

China traditionally is the main foreign trading partner for Amurskaya Oblast. In 2000-2015 the trade of this region with China has increased more than eight times. Foreign economic relations of the Amurskaya Oblast with China are promoted by five located on the Russian-Chinese border crossing points.

In 2010-2014, China accounts for over 80% of foreign trade turnover of the region. The trade turnover with China decreased by 22.0% in 2015 and amounted to 525.2 million US dollars, or 77.9% of the trade turnover value of the region. Besides, the export to China increased by 10.8% and amounted to 371.9 million US dollars, or 93.3% of the total export of the Amurskaya Oblast. According to the data of regional government⁵⁾, the major export items to China included electricity – 45%; soybeans – 19%; iron ore and iron concentrates – 14% of export value. The main import items were bulldozers and excavators –11%; flat-rolled products of carbon steel - 5%; fresh fruit - 3% of import value.

Twelve projects of the Amurskaya Oblast are included in the list of key projects of Russian-Chinese cooperation for 2009-2018.

Jewish Autonomous Oblast

China accounts for over 90% of foreign trade of JAO (98% in 2016). In 2000-2015 the trade of JAO with China has increased more than nine times. The trend of the trade turnover of the region with China was characterized by the growth

5) <http://www.vstamur.ru/activity/relation/economy/stat> (Итоги ВЭД Амурской области за 2016 год) (Retrieved December 15, 2016).

Table 1 Trade turnover of Jewish Autonomous Oblast (JAO) of Russia with China (US million dollars).

	2011	2012	2013	2014	2015	2016
Trade turnover	59.9	60.5	84.1	88.8	76.7	65.0
Export	10.7	15.7	16.1	22.0	36.6	37.0
Import	49.2	44.8	68.0	66.8	40.1	28.0

Source: <http://www.eao.ru/isp-vlast/upravlenie-ekonomiki-pravitelstva/vneshneekonomicheskaya-deyatelnost/sotrudnichestvo-eao-i-knr/> (Retrieved March 18, 2017).

in 2000-2008, the slump in the crisis of 2009, double growth in 2010-2014, and a reduction in 2015 and 2016 (Table 1). The decrease in trade turnover in 2015-2016 was due to a reduction of import by 40%, while the export to China increased (Table 1).

According to the JAO government, export and import items range have remained stable in recent years. Export to China has been dominated by traditional commodities, such as soybean (60%), timber and timber products (33%), fish, and mineral products. Import is presented by three commodity groups: (1) machinery, equipment and vehicles (35%), (2) metals and products from them (35%), (3) food products and agricultural primary products (17%)⁶.

Currently, there are two mixed cargo-passenger permanent multilateral checkpoints at the Russian-Chinese border in JAO: Nizhneleninskoe (Leninskiy municipal rayon) and Amzuret (Octyabirskiy municipal rayon). Seven projects of JAO included in the list of key projects of Russian-Chinese cooperation for 2009-2018, including the development of the Kimkan and Sutara iron ore deposits and the construction of the Far East mining and metallurgical combine.

6) <http://www.eao.ru/isp-vlast/upravlenie-ekonomiki-pravitelstva/vneshneekonomicheskaya-deyatelnost/sotrudnichestvo-eao-i-knr/> (Информация о сотрудничестве Еврейской автономной области и Китайской Народной Республики в 2016 году) (Retrieved March 18, 2017).

V Oil and Gas Pipelines across the Amur River

China Spur of ESPO

Early ideas of laying an oil export pipeline from Siberia to Pacific coast of Russia and northeast China have been emerging since the 1990s. According to Sixsmith (2010), the first concrete plan was proposed by Mikhail Khodorkovsky's Yukos oil company. In Moscow, Khodorkovsky won the China's agreement to finance the constructing of the 2,500 km pipeline from Angarsk in Irkutsk Oblast, where Yukos operated a refinery, across Mongolia, to Daqing in Heilongjiang Province, northeast China (Rutland 2006). The China National Petroleum Corporation (CNPC) agreed to build the section of the pipeline from the international border to Daqing. In contrast to this plan, the Russian government preferred a longer route up to the Pacific coast without entering Mongolia. This fitted Japan's oil business interest. Konończuk (2008) wrote that "Yukos oil company, which was interested in supplying oil to China, while Rosneft and the state-owned pipeline monopoly Transneft wanted the future pipe to run to one of the Pacific Ocean ports"⁷⁾.

Until sometime in 2003, two plans proceeded in parallel. The China's above agreement was signed by President Hu Jintao in the presence of Putin during a state visit to Moscow in May 26-28, 2003. According to Helmer (2005), however, "war broke out between Khodorkovsky and President Vladimir Putin" over the former's attempt "to sell up to 40% of Yukos to a US oil company". In July 2003, "Putin authorized the arrest five Yukos executives on charges of fraud and tax evasion," and Khodorkovsky himself was arrested in October of the same year.

On 31 December 2004, the Russian government approved the construction of the pipeline from Taishet in East Siberia to Pervoznaya in the Pacific region. In the

7) Quoted from the lines 2-4 of page 2 of [https://www.files.ethz.ch/isn/93805/commentary_12.pdf].

meantime, Kozmino near Nakhotka was chosen as the port for the future pipeline oil export. But this was not all. The plan to lay the oil pipeline to China has never disappeared from the investigation.

For two years since the middle of 2003, “Putin has been unable or unwilling to come down with a clear decision on the project, much to the frustration of his Chinese and Japanese interlocutors” (Rutland 2006). Only in April 2005, “Moscow issued an order for the pipeline to be constructed from Taishet to the halfway point at Skovorodino (Amursky Oblast) near the Russo-Chinese border” (Rutland *ibid*). However, this pipeline route (photo1) has to go up very northward to evade notoriously seismic belt just north of Lake Baikal. Construction of the pipeline in such a region was estimated very costly. Those environmental and financial issues delayed Putin’s final decision to commit the Taishet-Skovorodino section of the pipeline until 2006. Only on April 28, 2006, construction of this section, called the first section, started by Transneft.

Blagov (2008) writes: “In the meantime, the prolonged negotiations on the ESPO’s pipeline spur to China appear to be inconclusive as Rosneft and CNPC remain divided over oil export volumes and prices. Russian and Chinese companies tentatively agreed on the ESPO pipeline spur when then-President Putin visited China in March 2006. In May 2008 President Medvedev announced ahead of his trip to Beijing that Russia and China had agreed to build the ESPO pipeline spur to China”.

In June 2009, Russia and China signed a deal to build the spur pipeline to China by which Russia supplies China with 15 million tons of oil (300,000 barrels per day) each year for 20 years in exchange for a loan worth US\$25 billion to Transneft and Rosneft for pipeline and oil fields development. Construction of the spur to China started inside of the Russian territory on 27 April 2008, and inside of the Chinese territory on 18 May 2009. The 64 km long section from Skovorodino, the city of

Amurskaya Oblast, to the Amur River on the Russia-China border was built by Transneft, and the 992 km long section from Mohe, the Chinese border city to Daqing was built by CNPC. It was completed in September 2010. On 1 January 2011, Russia said it had begun scheduled oil shipments to China.

The second phase of the pipeline involved the construction of a 1,963km (1,210 miles) section from Skovorodino to the Pacific coast terminal at Kozmino. The terminal is designed to serve tankers with deadweight ranging from 80,000 tons to 150,000 tons. The second section was completed in December 2012.

The China spur has been mostly successfully operated, though the oil price negotiations between Russia and China had sometimes difficult occasions. Then, the plan of constructing an additional pipeline to Daqing was proposed by China, and Russian side agreed it. Together with the capacity of the already existent pipeline, a combined capacity of the new China spur will become 30 million tons per year. The construction will be completed by the end of October 2017, and commercialization will start on 1 January 2018.

Power of Siberia Gas Pipeline

Tellis and Wills (2006, p. 172) wrote: "Key to Russia's new Asia strategy is the building of an export pipeline for Siberian oil". This statement is only a half right. To have a full picture, it is better for us to add an export pipeline for Siberian gas.

At the occasion of the state visit of Hu Jintao, President of the People's Republic of China, to Moscow on May 26-28, 2003, Vladimir Putin and Hu Jintao made the Joint Declaration: "The implementation of large oil and gas projects, including the construction of the Russia-China oil pipeline, supplies of Russian natural gas to China, Russia's participation in the construction of the West-East gas pipeline with possible supplies of necessary Russian energy equipment for this project and cooperation between the oil companies of the two countries in oil prospecting

and development in Russia should serve as the basis for strengthening energy cooperation”⁸⁾.

The idea of gas pipeline in this joint declaration has taken a shape of the Power of Siberia project. It is one of the world-biggest gas transmission system consisting of the development of a 4,000 km-long gas pipeline to transfer natural gas from the gas production centers of the Chayandinskoye field (Sakha Republic) and the Kovykta field (Irkutskaya Oblast) to the Pacific coast of Russia and the inland China. The project is being developed by Russia’s state-owned Gazprom and the China National Petroleum Corporation (CNPC).

Chronologically speaking, Gazprom and CNPC signed, in 2009, the Framework agreement on the main terms of deliveries of Russian natural gas to China, foreseeing annual exports to Chinese market totaling to up to 68 billion cubic meters gas per annum. In September 2013, Gazprom and CNPC signed the Agreement on basic terms of pipeline deliveries to China via the eastern route, i.e., the route through Eastern Russia. (In contrast to this, the western route means the gas pipeline route from West Siberia through the Altai mountains, to northwest China.) On May 21, 2014, Gazprom and CNPC signed the Purchase and Sale Agreement to supply Russian gas to China. The 30-years’ agreement implies delivering 38 billion cubic meters of natural gas annually, according to Gazprom Export⁹⁾.

Construction of the Power of Siberia gas transmission system was launched with the welding of the first joint for the pipeline in Yakutsk (the capital city of Sakha Republic) in September 1, 2014. According to the press release of Gazprom of that day, the ceremony was such an important one that the attendance “was comprised of Vladimir

8) https://csis-prod.s3.amazonaws.com/s3fs-public/russia_2003_jointdeclarationprc.pdf (Joint Declaration of the Russian Federation and the People’s Republic of China, the Kremlin, Moscow, May 27, 2003) (Retrieved January 10, 2017).

9) <http://www.gazpromexport.ru/en/projects/3/2014> (“Power of Siberia”, Gazprom Export, 2014) (Retrieved December 26, 2016).

Putin, Russian President, Zhang Gaoli, First Vice Premier of China's State Council, Yury Trutnev, Deputy Prime Minister of the Russian Federation and Presidential Plenipotentiary Envoy to the Far Eastern Federal District, Alexey Miller, Chairman of the Gazprom Management Committee, Wang Dongjin, Vice President of CNPC and Yegor Borisov, Acting Head of the Republic of Sakha¹⁰⁾.

Chayandinskoye and Kovyktinskoye are Eastern Russia's two major gas fields holding 1.5 trillion and 1.2 trillion cubic meters of gas reserves respectively. The system will comprise two gas trunk lines - the 3,200km-long Yakutia - Khabarovsk - Vladivostok gas trunk line and the 800km-long pipeline connecting Kovyktinskoye gas field in Irkutskaya Oblast with the gas production center in Sakha Republic (alternatively called Yakutia).

Looking at the construction details, the first phase of the project includes the construction of a 2,200 km pipeline between the Chayandinskoye field in Sakha Republic and the city of Blagoveshchensk in Amurskaya Oblast on the Russian-Chinese border. The next phase construction will involve an 800 km pipeline connecting Kovyktinskoye field in the Irkutskaya Oblast to the integrated gas production center near Chayandinskoye field.

The town of Svobodny in Amurskaya Oblast will become the pipeline diverging point into two directions; one toward the city of Khabarovsk and another toward Blagoveshchensk facing the Amur River. A 1,000km pipeline from Svobodny to Khabarovsk will comprise the final section of the gas transmission line. This pipeline will connect with the Sakhalin-Khabarovsk-Vladivostok gas transmission system at Khabarovsk. The Sakha-Khabarovsk-Vladivostok trunk line will be laid parallel to the ESPO oil pipeline to save the infrastructure and power supply costs.

China started the construction of Power of Siberia gas pipeline in 2015. The

10) <http://www.gazprom.com/press/news/2014/september/article200026/> (Power of Siberia construction launched, September 1, 2014) (Retried November 15, 2016).

welding of the first joint on the pipeline took place in the opening ceremony which was held near the Chinese city of Heihe in the northern Heilongjiang province on 29 June, 2015. Heihe locates just across the Amur River. It is on the other side of Blagoveshchensk. The pipeline will stretch as far as Shanghai via Harbin or nearby.

Russian Prime Minister Dmitry Medvedev took part in the ceremony via a video link. He called the pipeline the world's biggest infrastructure project. The Vice Premier of the State Council of China Zhang Gaoli also took part in the ceremony via video link. According to the Reuter report, he said that such large-scale projects are a good foundation for promoting a strategic partnership between the two countries and for social and economic progress¹¹⁾.

VI Railway and Road Bridges across the Amur River

Amur Railway Bridge

On the Nizhneleninskoye-Tongjiang railway bridge project, William Engdahl, an American author for the online magazine *New Eastern Outlook* writes, in December 2016, that "The project, due to complete in 2018, is known as the Amur Bridge Project. It is under construction with the longer China section complete and the Russian under construction after delays, since July. When open, the bridge will carry two gauges of rail link—one standard gauge used by China of 1435 mm track and a Russian gauge of 1520 mm track. The 2 km long bridge will link Nizhneleninskoye in the Jewish Autonomous Oblast with Tongjiang in Heilongjiang Province. The drive for building the bridge is initially to bring Russian iron ore from Petropavlovsk open-pit mine in Kimkan in Jewish Autonomous Oblast to markets in China" (Engdahl 2016).

It has a designed annual shipment volume of 21 million tons. The bridge will

11) <https://www.rt.com/business/270352-russia-china-gas-pipeline> ("China begins construction of Power of Siberia pipeline for gas delivered from Russia," *Reuter*, June 25, 2015) (Retrieved January 14, 2017).

reduce the cost of transporting iron ore excavated in Russia to China, shortening the journey to a major Chinese steel mill to just 233 kilometers from over 1,000 kilometers at present.

Looking back the recent history of the plan for this yet to be completed bridge, the year 2007 was the year of the China Harbin International Fair for Trade and Economic Cooperation (Harbin Fair). During this fair, Valery Solomonovich Gurevich, the vice-chairman of the Jewish Autonomous Oblast in Russia said that Russia and China would start construction of the first railway bridge, the Amur Bridge Project, over the Amur River by the end of 2007. According to him, the 2,197 m long bridge, with an estimated investment of nearly US\$230 million financed by Aricom Limited, was expected to be finished by the end of 2010. Aricom was a forerunner of IRC Limited (simply IRC), which we will explain shortly after.

As of November 2008, construction had not started yet, but the transport ministries of Russia and China have signed an agreement about building bridge. Behind this ambitious project, there has been a strong initiative of IRC, which is neither Russian nor Chinese business. It is a Hong Kong-based business focused on exploring for, developing, and operating industrial commodity projects, particularly in the mining sector. Its operations are centered in Russian Far East and in China's Heilongjiang Province. Its key person is Jay Hambro born in a Danish merchant banking family in 1975. His father, Peter Hambro, had built the gold mining company named Petropavlovsk after acquiring a new gold mine in the ending age of the Soviet Union. Having trained himself in banking business in England and others, Jay Hambro joined his father's Petropavlovsk. But his interest changed from gold to iron business. He then acquired Aricom Limited, a London-listed iron ore mining company with operations in Russia. (It was an outgrowth of a part of Petropavlovsk with broad mining business interests not only gold.)

In August 2010, Aricom changed the name to IRC, and became a Hong Kong-

listed business. IRC Group owns the K&S Mine, which is located in JAO. K & S stand for the place names; Kimkan and Sutara both of which had been known to have rich iron ore reserves nearby. K & S locates in the Obluchensky rayon of the northwestern part of JAO. It is “4 km west of the town of Izvestkovaya, through which the Trans-Siberian Railway passes, approximately 130 km west by federal highway from the regional capital Birobidzhan, and 300 km west of Khabarovsk, the principal city of the Russian Far East”¹²⁾.

At present, the distance from K & S operation via Khabarovsk to the Chinese border (Suifenhe, the eastern end city of Heilongjiang Province) is approximately 1,500 km, which means 10 to 14 days of railway transportation, much faster and consistent than other international peers. “The Amur River Bridge, which is a Sino-Russian infrastructure project can further shorten the time and distance of transport of K & S and halve K & S’ transport cost”¹³⁾.

At the beginning stage of IRC’s planning of this bridge project, it was not easy for Jay Hambro to persuade Russian authorities to pay positive attentions on it. According to the *Financial Times*’ article by Henry Sanderson, he interviewed Mr. Hambro in 2015 and reported Hambro’s own words as follows: “So we worked together with the Russian government and the local authorities. It was a long and complicated process. The local government had little experience of a public-private partnership, he says. That made getting financing difficult. But last year the bridge was finally sold for \$4.4m to a consortium including a Russian infrastructure fund and China’s sovereign wealth fund” (Sanderson 2016).

A low price of iron ore in the international market in recent years has not been a good news for IRC. But the bridge project is progressing in 2016-17.

12) http://www.irgroup.com.hk/html/busks_technology.php (IRC Group, Operations, K&S (2016) (Retrieved December 15, 2016).

13) http://www.irgroup.com.hk/html/busks_technology.php (IRC Group, Operations, K&S (2016) (Retrieved December 15, 2016).

Blagoveshchensk-Heihe Road Bridge

Blagoveshchensk is the Russian city in Amurskaya Oblast, while Heihe (photo 2) is the Chinese city in Heilongjiang Province. The two cities face each other across the Amur River. Distance between them is only 700 meters or so. They locate some 500 km upstream of the Nizheneleninskoye-Tongjiang area which we already mentioned in the context of the Amur Railway Bridge.

On these two cities, a tourist information tells: "In May-October, there is a ship running between these cities. In January-March, there is a pontoon ferry and you can go by bus. In other months (November, December, April), during freeze-up, hovercrafts are used. Dates may vary slightly depending on the weather"¹⁴). In contrast to these small-scale, provisional means of traversing the river, there has been arising the permanent, road bridge project between these cities.

Blagoveshchensk, which has the population of 224, 335 (2016), is located at the confluence of the mainstream of the Amur River and its northern tributary called the Zeya River. The trunk line of the Trans-Siberian Railway does not pass Blagoveshchensk. However from Belogorsk, a Trans-Siberian junction point station, the 110 km long spur railway runs in the southwest-ward direction heading for Blagoveshchensk.

Heihe was a small town until the 1980s, but started a rapidly growing industrialization to become a big city of population 1,740,000 including the suburb at present.

The planned suspension bridge across the Amur River will be around a kilometer long and getting between China and Russia will take only 20 minutes. The project has been thought about for 28 years, "and Russia and China finally agreed to build

14) <http://russiatrek.org/blog/cities/blagoveshchensk-the-view-from-above/> (Retrieved January 20, 2017) ("Blagoveshchensk – the view from above," *Russiatrek*, February 17, 2017) (Retrieved January 20, 2017).

the road in 2014. Since then, the two sides have been negotiating how it would be financed. After the suspension bridge is finished, it will be connected to a railway bridge across the Amur River”¹⁵⁾.

According to Reuter’s report of 2016, construction officially started on 24 December. The governor of Amurskaya Oblast and top officials in Heilongjiang Province took part in the ceremony. The new road bridge and its associated infrastructure are estimated to cost around \$355 million, and its road junction will be 19.9 km long. “Some 6.5km of the bridge and road junctions will lie in China, and the remaining 13.5km in Russia, according to China’s CNS agency. The length of the main suspension bridge will be roughly 1,300 meters and its width 14.5 meters. Each country will construct the respective part of the bridge. Russian companies will make the connection between the two parts. When the construction is completed, the Russian side of the bridge will become the property of the Amur region, while the Chinese part will be owned by Heilongjiang Province. The bridge will contribute greatly to modernization of the transport system of the two regions, according to Heilongjiang Province Governor Lu Hao”¹⁶⁾.

The bridge is expected to be built in three years and will open late 2019. By 2020, cargo turnover is expected to increase 10-fold, from 300,000 to 3 million tons. In addition to the road bridge, it is worth noting that there is a plan of construction of a cross-border aerial tramway connecting the two cities. Its construction is set to begin within 2017. “Travel time from the Russian side to the Chinese bank of the Amur River via the aerial tramway will be a maximum of 5–6 minutes. The route will be 768 meters in length, with two lines enabling up to 1,800

15) <https://www.rt.com/business/360256-amur-heihe-blagoveschensk-bridge> (“Russia & China start building connecting suspension bridge,” *Reuter*, September 22, 2016) (Retrieved January 14, 2017).

16) <https://www.rt.com/business/371620-russia-china-amur-bridge> (“Russia, China launch construction of bridge across Amur river,” *Reuter*, December 25, 2016) (Retrieved January 30, 2017).

passengers to travel per hour”¹⁷⁾.

The aerial tramway will become the key facility in the ‘Golden Mile’ project. “The ‘Golden Mile’ project is a 42-hectare fill on the bank of the Amur River where there are plans to establish several functional zones: business, cultural and entertainment, public, and commercial. The Amurskaya Oblast authorities predict that the ‘Golden Mile’, the aerial tramway, and the Blagoveshchensk–Heihe bridge across the Amur River, should increase tourist traffic from China to 1 million tourists per year, and annual spending by Chinese tourists on the Russian side is expected to be USD 1 billion”¹⁸⁾.

Thus, the Blagoveshchensk–Heihe area seems to form a future model of Russian–Chinese economic and cultural cooperation.

VII Development of Kimkan & Sutara Iron Ore Mine

The development of K&S Mine (photo 3), which we already explained in the context of Amur Railway Bridge in the first half of Section VI, is a prime example of successfully developing Russian–Chinese mineral resources business in the border areas.

This project began in 2004, when the Company “Kimkano-Sutarskiy mining and processing plant” as a foreign company was registered in Russia. While Khingansk and Obluchenskiy rayon suffered from the closure of the Khingan mining and processing plant in 2005, the new business of K&S Mine started in less than 70 km from Khingansk. The occurrence of K&S project was impacted by (1) natural factors such as the big quantity (see Table 2) and high quality of iron

17) <http://forumvostok.ru/en/construction-of-blagoveshchensk-heihe-aerial-tramway-to-begin-in-april-2017> (“Construction of Blagoveshchensk-Heihe Aerial Tramway to Begin in April 2017,” Eastern Economic Forum (December 28, 2016) (Retrieved January 30, 2017).

18) <http://forumvostok.ru/en/construction-of-blagoveshchensk-heihe-aerial-tramway-to-begin-in-april-2017> (“Construction of Blagoveshchensk-Heihe Aerial Tramway to Begin in April 2017,” Eastern Economic Forum, December 28, 2016) (Retrieved January 30, 2017).

Table 2 K&S Resources

	Resources	Ore (Mt)	Fe grade (%)
Kimkan	Measured & Indicated	146.3	33.2%
	Inferred	104.9	31.5%
Sutara	Measured & Indicated	426.7	32.4%
	Inferred	65.5	31.0%
Total	Measured & Indicated	588.0	32.2%
	Inferred	170.4	31.8%

Source: http://www.ircgroup.com.hk/html/busks_technology.php (Retrieved December 15, 2016).

Table 3 Chemical Composition of K&S Iron Ore Concentrate (production started in 2015)

Component	Mass Fraction (average), %	Mass Fraction (guaranteed), %
Fe total	65.8	≥ 65.0
SiO ₂	5.96	≤ 7.5
Al ₂ O ₃	0.67	—
CaO	0.5	—
MnO	0.41	—
P	0.045	≤ 0.15
S	0.05	≤ 0.15

Source: http://www.ircgroup.com.hk/html/busks_technology.php (Retrieved December 15, 2016).

ore (see Table 3), (2) economic factors of as demand for the resource in domestic and international markets (especially China), and (3) the strengthening of Russian-Chinese political and economic relations.

On March 23, 2010 in Moscow in the framework of the meetings of the Prime Minister of Russia Vladimir Putin with the then Deputy Chairman of China Xi Jinping, the company “Petropavlovsk” has signed an agreement with Industrial and Commercial Bank of China (ICBC) and the Chinese National Corporation for

Electric Equipment (CNEEC) on joint financing and implementation of the project of construction of K&S mining and metallurgical plant. Increased attention by federal, regional and local authorities to this project has been occurring since 2014, after the Ukrainian crisis and the consequent strengthening of the eastern vector of state economic policy.

Now the K&S Mine is 100% owned by IRC Ltd, a part of Petropavlovsk PLC. The total site covers over 50 km², and is well located, benefiting from direct access to rail, road, power, water and a workforce. At K&S, the iron ore concentrate produced is a superior 65% Fe grade (Table 3) with no material impurities. This means that it is highly attractive to Chinese steel mill customers, especially those in the Northeast China where it is hard to obtain the high-quality concentrates.

Despite the fact that originally K&S project does not meet the principles of sustainable development as it uses exhaustible mineral resources (endowment by resources is 55 years according to company data), it has a positive impact on the socio-economic development of the local area. The emergence of the enterprise and its further development (except iron ore concentrates production, the construction of a metallurgical plant is planned) leads to inflow of labor from the nearby settlements and other regions of Russia and China. During the field trip to K&S in September 2014, Tamara Litvinenko could observe the mining workers camp with a dormitory for 120 persons and apartment house with 48 apartments for professionals. According to the company officials, approximately 1,000 Chinese workers and about 800 Russian (among them more than half were residents of the Obluchenskiy rayon) were employed at K&S plant. The number of employees is planned to increase up to 3000. Social, economic, infrastructural and other ties and communities of the enterprise with human settlements located nearby, including rayon center and Khingansk, have been increasing.

In February 2017, K&S was visited by Alexander Levintal, the Governor of JAO, and Rostislav Goldstein, the member of the Federation Council of the Federal Assembly of the Russian Federation. They noted a high degree of implementation of the project and the importance of enterprises for socio-economic development of the region and once again confirmed their readiness to render maximum assistance in the successful implementation of the project.

The Director-General of K&S plant Yuri Makarov told about the progress of commissioning work and current production rates. In December 2016, the plant produced about 60 tons of concentrate, in January 2017 - more than 100, and the same was in February. In the first half of 2017, the company is planning to reach the full capacity. This means that each month will be shipped about 260 thousand tons of iron ore concentrate. At the end of the year, the mining and metallurgical plant will pay not less than 300 million rubles in the regional budget¹⁹⁾.

VIII Concluding Remarks

In the age of the Sino-Soviet controversy, there occurred the border disputes, sometimes violent. The most intense case was the Madansky incident of 1969 on the Ussuri River, a tributary of the Amur River. In those days the Amur River looked like a river of barrier. However, the Treaty for Good-Neighborliness, Friendship and Cooperation of 2001 marked the arrival of the age of cooperation. Such cooperation can be visible in both sides of the Amur River; Skovorodino, Blagoveshchensk, Birobizhan, and related areas of Russia, and Mohe, Heihe, Tongjiang and related areas of China.

Among the four big projects across the Amur, the China spur of the ESPO oil pipeline, whose crude oil supply is based on several Siberian oil fields, had been

19) http://www.petrovavlovsk-jo.ru/rus/news/news/2017/02/07/news_510.html (Retrieved October 12, 2016).

the most complicated in its planning, but at the same time has been the most significant in its economic and political implications. The second spur line is at the beginning stage of construction to double the already working transportation capacity.

The Power of Siberia gas pipeline, though the history of construction was behind the ESPO pipeline, is no less significant than the ESPO in that a potential supply area of Russian gas is not only Harbin area of northeastern China but the giant city like Shanghai. Associated with this gas pipeline, the area of Svobodny near Blagoveshchensk hosts the newly constructed Amur gas processing plant (GPP), which reprocesses the natural gas from Irkutsk and Sakha regions to be sent to China. The internationally well-known Vostochny Cosmodrome also locates nearby. Furthermore, there is “a plan to create a large transport and logistics complex in the vicinity of the proposed location of the border entry point” (Suslov 2016).

If completed, the two bridges across the Amur River will significantly increase the trade volume and human exchange between the two countries. Some financial or political or combined reason may delay paces of project progression in the near future. But our case studies in Sections V and VI demonstrate that the middle stream of the Amur River is certainly changing into the ‘river of cooperation’.

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Photo 1 A view of the ESPO pipeline-buried route in the midst of taiga forest at the suburb of Neryungri city, Sakha Republic (August, 2010).



Photo 2 Heihe city viewed from the ferry across the Amur River (August, 2014).

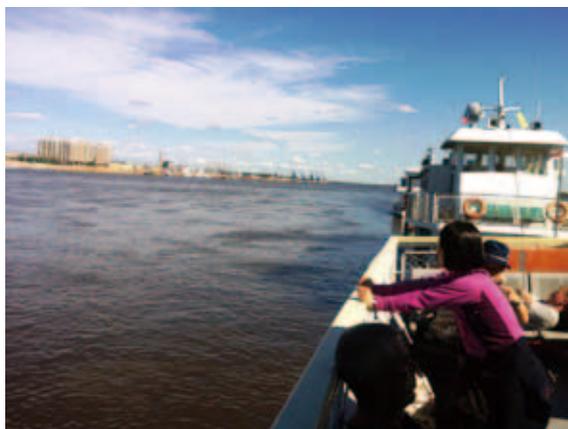


Photo 3 A wide view of the K & S Iron Ore Mine in Jewish Autonomous Oblast (August, 2014).



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Abstract

Takeshi MUROTA and Tamara V. LITVINENKO, *Four Major Inter-Amur Projects between Russia and China: From a River of Barrier to a River of Cooperation?*

The Amur River acted as a barrier between Russia and China in the era of the Sino-Soviet conflict. However, the Treaty for Good Neighborliness, Friendship, and Cooperation signed at Moscow by Jiang Zemin of China and Vladimir Putin of Russia in 2001 has been transforming the conflict-stricken border watercourse into a river of contact and cooperation. At the time of signing of the treaty, various kinds of international economic cooperation programs began to be tackled by government and private initiatives both in the two countries and sometimes even involving others in the region.

In this paper, we analyze the history and the current status of the four major projects for Russia-China cooperation across the Amur River. The four projects are: (1) the China spur of the ESPO oil pipeline; (2) the Power of Siberia gas pipeline; (3) the Nizheneleninskoe-Tonjiang railway bridge; and (4) the Blagoveshchensk-Heihe road bridge. The Kimkan & Sutara iron mine development is also seen to be promoting project (3).