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Shifting Sands in Central Asia: Geopolitics of Natural Gas Flows

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Russia's grip on the Central Asia-Center pipeline seemed to have ensured its control over Central Asian natural gas exports during the post-Soviet era. In recent months, that dominance has begun to erode with the opening of two new export routes: one linking Turkmenistan, Kazakhstan and Uzbekistan to China and another one linking Turkmenistan to Iran. The development of these new routes are said to have caused a "tectonic shift" in economic and political relations in the Central Asian region.

The Central Asian states of Turkmenistan, Kazakhstan and Uzbekistan sit atop enormous natural gas deposits: Turkmenistan, with 2.7 trillion cubic meters (tcm) of natural gas reserves, is thought to hold the world's twelfth largest proven reserves, although regularly announced discoveries of new gas fields suggest that the country may in fact hold greater reserves of natural gas than has yet been proven; Kazakhstan, with 2.4 tcm, has the world's thirteenth largest reserves; and Uzbekistan, with 1.8 tcm, has the world's eighteenth largest reserves of natural gas. (1) In an era marked by increased concerns over greenhouse gas emissions and the rising cost of oil, economic forecasts point to a dramatic rise in global demand for natural gas by which the hydrocarbon-rich Central Asian states stand to reap handsome profits. (2) But, for the most part, the promise of wealth flowing into the region has failed to materialize during

the decades following the dissolution of the Soviet Union, leaving the states of Turkmenistan, Kazakhstan and Uzbekistan as paupers sitting on a golden throne.

The constraints responsible for the limited level of development in the region's energy sector can be measured in millimeters: 1,020 – 1,420 millimeters, to be precise. (3) That measure is the average diameter of the Central Asia-Center (CAC) natural gas pipeline, the principal corridor for Turkmen and Uzbek gas deliveries to the Russian market downstream. The CAC network is a Soviet industry holdover, constructed in stages across Turkmenistan, Uzbekistan, and Kazakhstan from 1960 to 1988; today it remains under Russian control exercised by the state's gas export monopoly, Gazprom. At one time, the system's total carrying capacity was estimated at 90 billion cubic meters (bcm) per year, though by 2009, volumes had dropped to about 44 bcm. (4) The export bottleneck is due, in large part, to the decrepit state of repair into which the transmission system has fallen during the post-Soviet era.

The CAC has served as an invaluable tool for Gazprom, allowing Russia to retain its dominant position in the region as the gatekeeper for Central Asian gas exports. Turkmenistan and Uzbekistan rely on the CAC transmission system to move over 70 percent of their annual export volumes, which must pass through Russia en route to foreign markets. Gazprom has used its ownership of the pipeline to secure favorable terms in negotiations for Central Asian gas supplies, which in turn can be sold at a profit to markets further downstream. Russia has come to rely upon the ready availability of cheap Central Asian fuel supplies to meet its domestic energy needs, as its own levels of natural gas production have been diverted to lucrative European markets, or have dropped off in exhausted Siberian fields. If such supply arrangements struck Central Asian governments and downstream consumers as predatory, there was little they could do about it as long as Gazprom retained exclusive control of the region's pipelines.

Despite evidence that the CAC has been suffering from chronic structural neglect during the past two decades, Gazprom and the Russian government have jealously guarded the CAC against would-be challengers. Primary among these challengers to Russian

regional hegemony were EU and US-backed energy majors seeking a route to Central Asian energy supplies that would bypass Russia. One scheme that seemed to gain traction for a time was the Nabucco pipeline, which would provide a vital supply line linking Central Asian gas fields directly to European markets downstream. However, this plan was fraught with problems from the beginning due to an array of factors, some having to do with the region's tumultuous geopolitics. Conflict in Afghanistan threatened the security of gas field developments in southern Turkmenistan. Iran's nuclear program and the attendant threat of international sanctions made Western companies wary of charting the pipeline's path through that country, meaning that an important corridor must remain off limits to the Nabucco partners. Domestic politics in Central Asian countries also complicated the picture, with governments disinclined to seek Western support proffered with strings attached. Regardless of the hurdles standing in the way of an independent pipeline to Central Asia, Western plans were sufficiently plausible to set off alarms in Moscow.

Gazprom responded to what it perceived as a threat to its regional dominance with extreme measures, contracting to buy between 70 to 80 bcm of Turkmen gas annually at European market prices, which then averaged around \$350 per thousand cubic meters (tcm). Moreover, the Russian company promised to expand the capacity of the CAC network, and to update its aging infrastructure. Problems arose soon after the deal was struck, when the floor dropped out from under the global gas market in 2008, and Russia was unable to resell its gas surplus on stagnant European markets. For over a year Russia was forced to buy Turkmen gas volumes at a loss. Then, in April 2009, an explosion along a branch of the CAC pipeline brought gas flows from Turkmenistan to a halt. The incident was decried by Turkmen authorities, who viewed the explosion as sabotage orchestrated by Gazprom at the very moment that the company had decided to default on its import commitments, and who claimed that the reduction in exports cost Turkmenistan \$1 billion per month in lost revenues. (5)

Gazprom was still laboring to come to a new supply arrangement with Ashgabat on December 14, 2009, when the presidents of China, Turkmenistan, Kazakhstan, and

Uzbekistan met to inaugurate the Central Asia–China gas pipeline in Turkmenistan. In keeping with the grand scale of operations characteristic of Chinese endeavors, the new pipeline is said to be the world’s longest, stretching from Turkmen gas fields on the shore of the Caspian Sea, through Uzbekistan, Kazakhstan, and then on to China’s western Xinjiang province 1,833 kilometers away. There, it links up with the Chinese West-East gas transmission system that runs 4,500 kilometers across the country, supplying Central Asian gas to Shanghai and Hong Kong. (6) In 2010, the pipeline will carry an anticipated load of thirteen bcm of Turkmen gas, volumes that are expected to increase to thirty bcm the following year, and to more than forty bcm by 2013, an estimate that represents over half of China’s current level of consumption, and approaches Turkmenistan’s export levels of 2008, totaling forty seven bcm. (7) Uzbekistan and Kazakhstan, host countries to the pipeline, may someday feed natural gas volumes from their national production into the Chinese supply network.

The pipeline is the result of enormous geostrategic initiatives that China is presently in a unique position to realize. The project, estimated to cost around \$8 billion, was financed in large part by the China Development Bank, which laid out \$6.7 billion for the 1,115 kilometer portion of the pipeline that runs through Kazakhstan. (8) In the Central Asian partner states, the China National Petroleum Corporation bought up large shares of Kazakhstan’s energy companies MangistauMunaiGas and KazMunaiGas Exploration & Production, and obtained rights to exploit Turkmenistan’s eastern South Yolotan gas field. (9) At the opening ceremony, China was congratulated for successfully uniting the Central Asian states by Turkmen President Berdymuhammedov, who hailed Chinese efforts in terms as grandiose as the project itself: “a prototype for all international energy partnerships,” and he predicted that history would prove it to be “a major contributing factor to security in Asia.” (10)

The launch of the Central Asia-China pipeline was followed by a second inauguration that, although not so dramatic in terms of length or capacity, nonetheless signals a sustained drive to branch out from Russia’s exclusive sphere of influence in post-Soviet geopolitics. In January of this year, Iran and Turkmenistan celebrated the opening of a

pipeline linking Turkmenistan's southeast Dauletabad gas field to the Khangiran gas refinery about thirty kilometers away in northern Iran. The Dauletabad-Sarakhs-Khangiran pipeline initially will carry six bcm of gas per year, eventually bringing Turkmen exports up to about twenty bcm per year. (9) The new branch will supplement the two hundred kilometer Korpedzhe to Kurt-Kui pipeline, which has been carrying about six to eight bcm of Turkmen gas per year since 1997. (10) Until the Central Asia-China pipeline opened late last year, the Korpedzhe to Kurt-Kui pipeline represented Turkmenistan's only export route not under Russian control. The modest new pipeline was hailed as a historic pact of friendship among neighbors at the opening ceremony, where Iranian President Mahmud Ahmadinejad promised that it would take relations between the two states to a new level, and Turkmen President Gurbanguly Berdymuhammedov, spoke of its "major international significance," calling it "an answer to the problem of energy security." (11) Although the Dauletabad-Sarakhs-Khangiran pipeline is far too limited to satisfy Iran's desire to be a major regional player in Central Asia, it has provided Iran with the opportunity to reach out to a regional partner at a perilous moment in its history and has given Turkmenistan a second impetus in its drive for export diversification. The new pipeline linking the two neighbors comes at a time when gas flows are expanding, but perhaps not in the direction favored by Western governments. The fact that Turkmenistan went ahead and welcomed the new route indicates that Berdymuhammedov's government is interested less in attracting Western support and investment than in developing the economic ties that come to hand.

Reactions in Moscow to the new developments in Russia's former backyard have been muted. Analysts downplayed the political significance of the altered economic landscape, noting that Gazprom is sticking by its long-term strategy of blocking Western plans for a non-Russian pipeline to prevent Central Asian gas from flowing to its European customers downstream. (12) Russian Prime Minister Vladimir Putin acknowledged the opening of the new energy route between Central Asia and China, but said only, "We know China's gas demand ... and do not think the Turkmenistan-China gas pipeline could undermine [our plans]," referring to a natural gas supply agreement between Russia and China that has been sputtering toward viability over the

last five years. (13) In fact, at the time of the Central Asia-China pipeline's inauguration, officials in Moscow were in no position to oppose Central Asian gas exports to China, with Gazprom refusing to honor its 2008 commitment to buy up to 80 bcm of Turkmen gas per year at European prices. (14) When Gazprom finally agreed to begin accepting gas imports from Turkmenistan the following month, it limited its total volume commitment to 30 bcm per year, and demanded a significant discount. (15) Even if Russian officials had objected, their complaints would have had little effect unless backed up by a more attractive offer than they have been able to make thus far. Faced with the current slump in world market prices and demand for natural gas, Russia is no longer the most favored partner in the region.

The inauguration of the new natural gas pipelines is a development of geopolitical import. For coming years, it portends an economic and political shift in favor of the three Central Asian countries, China and Iran, to the detriment of Russian and, possibly, Western interests in the region. Russia will no longer enjoy a monopolist's hold over the region's energy markets. This is a turn of events for which Western governments have long contended, but ultimately it may not work to their benefit, as the increased influence of China and Iran in Central Asia marks a corresponding diminishment of Western leverage there. It is doubtful that Turkmenistan, in particular, will be as receptive to Western overtures that come freighted with demands for democratic reforms now that the government in Ashgabat has wealthy economic partners that show blithe indifference to its unsavory methods of domestic governance. Certainly, Turkmenistan's participation in future negotiations concerning the feasibility of Nabucco are unlikely to come garlanded with promises of free elections. Moreover, Western governments must now contend with Turkmenistan's fresh wellspring of neighborly goodwill that likely will complicate efforts to isolate Iran through sanctions. In fact, the Dauletabad-Sarakhs-Khangiran pipeline may open a corridor for Turkmen gas through Iran to the Persian Gulf, a development that would not be cheered by consumers in the West. At the start of a new decade in Central Asia, Iran has secured a regional ally; China has secured a long-term energy supply chain; Russian interests are diminished and Western interests grow increasingly irrelevant. The states of Turkmenistan,

Kazakhstan and Uzbekistan have shifted toward economic independence from Russia, and thereby attained a degree of regional stability and security.

Source Notes:

(1) “Country Comparison: Natural Gas – Proved Reserves,” CIA World Factbook, 1 Jan 09 via [https://www.cia.gov/library/publications/the-world-factbook/rankorder/2179rank.html?](https://www.cia.gov/library/publications/the-world-factbook/rankorder/2179rank.html?countryName=Uzbekistan&countryCode=uz®ionCode=cas&rank=18#uz)

[countryName=Uzbekistan&countryCode=uz®ionCode=cas&rank=18#uz](https://www.cia.gov/library/publications/the-world-factbook/rankorder/2179rank.html?countryName=Uzbekistan&countryCode=uz®ionCode=cas&rank=18#uz); 2008 estimates by the independent British auditing company, Gaffney, Cline & Associates Ltd putting Turkmenistan at fourth or fifth in world reserves were somewhat compromised due to inflated data provided by Turkmengas, Turkmenneft and Turkmenneftegazstroy; all Turkmen officials responsible were fired by Turkmen President Berdymuhammedov in October 2009. See Philip H. de Leon, “Turkmenistan gains, Gazprom loses in new pipeline,” CommodityOnline, 23 Dec 09 via <http://www.commodityonline.com/news/Turkmenistan-gains-Gazprom-loses-in-new-pipeline-24118-3-1.html>.

(2) The US Energy Information Administration estimates that worldwide natural gas consumption is rising by an average of 1.6 percent per year, from 31.7 trillion cubic meters in 2006 to 46.6 trillion cubic meters in 2030. “International Energy Outlook 2009,” US Energy Information Administration, 27 May 09 via http://www.eia.doe.gov/oiaf/ieo/nat_gas.html.

(3) Martha Brill Olcott, “International Gas Trade in Central Asia: Turkmenistan, Iran, Russia and Afghanistan,” Working Paper No. 28, Geopolitics of Natural Gas Study, Stanford Institute for International Studies, May 04 via <http://pesd.stanford.edu>.

(4) “Basic information on the CAC network,” Vol. 14, Issue No. 14, Alexander’s Oil & Gas Connections, 16 Oct 09 via <http://www.gasandoil.com/goc/news/ntr94105.htm>.

(5) “Turkmenistan resumes gas supplies to Russia,” AFP, 9 Jan 10 via http://www.google.com/hostednews/afp/article/ALeqM5hsHTs5hvab-8EWx8_kdkXtG23pwA.

(6) “Ahmadinejad opens new Turkmenistan-Iran gas link,” Agence France Presse, 6 Jan 10 via <http://www.thehimalayantimes.com/fullNews.php?headline=Ahmadinejad+opens+new+Turkmenistan-Iran+gas+link&NewsID=219427>.

- (7) “Turkmenistan resumes nat gas supplies to Russia,” ITAR-TASS, 10 Jan 10 via <http://www.itar-tass.com/eng/level2.html?NewsID=14705397&PageNum=0>;
- Sergei Blagov, “Russia labors as neighbors do deals,” Asia Times Online, 17 Dec 09 via http://www.atimes.com/atimes/Central_Asia/KL17Ag01.html.
- (8) “UPDATE 1-KazMunaiGas, CNPC take over MangistauMunaiGas,” Alibaba.com, 25 Nov 09 via <http://news.alibaba.com/article/detail/energy/100206467-1-update-1-kazmunaigas%252C-cnpc-take-over.html>; Alexander Vershinin, “Turkmenistan awards giant gas field contract,” The Boston Globe, 30 Dec 09 via http://www.boston.com/news/world/europe/articles/2009/12/30/turkmenistan_awards_giant_gas_field_contract/.
- (9) “President Hu opens Kazakh section of new Central Asia-China pipeline,” The China Post, 13 Dec 09 via <http://www.chinapost.com.tw/asia/regional-news/2009/12/13/236355/President-Hu.htm>.
- (10) Philip H. de Leon, “Turkmenistan gains, Gazprom loses in new pipeline,” CommodityOnline, 23 Dec 09 via <http://www.commodityonline.com/news/Turkmenistan-gains-Gazprom-loses-in-new-pipeline-24118-3-1.html>.
- (11) Pavel Baev, “China Trumps Gazprom,” The Moscow Times, 17 Dec 09 via <http://www.themoscowtimes.com/opinion/article/china-trumps-gazprom/396292.html>.
- (12) “Turkmenistan resumes gas supplies to Russia,” Ekho Moskvyy, 9 Jan 09 via <http://echo.msk.ru/news/647593-echo.html>.
- (13) Although the final price of gas volumes was not disclosed, Ekho Moskvyy reported estimates of \$240 – 250 per thousand cubic meters, down from about \$350 in 2008. Ibid.
- “Ahmadinejad opens new Turkmenistan-Iran gas link,” Agence France Presse, 6 Jan 10 via <http://www.thehimalayantimes.com/fullNews.php?headline=Ahmadinejad+opens+new+Turkmenistan-Iran+gas+link&NewsID=219427>.
- (14) Martha Brill Olcott, “International Gas Trade in Central Asia: Turkmenistan, Iran, Russia and Afghanistan,” Working Paper No. 28, Geopolitics of Natural Gas Study, Stanford Institute for International Studies, May 04 via <http://pesd.stanford.edu>.
- Philip H. de Leon, “Turkmenistan gains, Gazprom loses in new pipeline,” CommodityOnline, 23 Dec 09 via <http://www.commodityonline.com/news/Turkmenistan-gains-Gazprom-loses-in-new-pipeline-24118-3-1.html>.

(15) "President Hu opens Kazakh section of new Central Asia-China pipeline," The China Post, 13 Dec 09 via <http://www.chinapost.com.tw/asia/regional-news/2009/12/13/236355/President-Hu.htm>.

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