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INTERNATIONAL GAS TRADE IN CENTRAL ASIA: TURKMENISTAN, IRAN, RUSSIA AND AFGHANISTAN

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**International Gas Trade in
Central Asia: Turkmenistan, Iran,
Russia and Afghanistan**

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About the Geopolitics of Natural Gas Study

Natural gas is rapidly gaining in geopolitical importance. Gas has grown from a marginal fuel consumed in regionally disconnected markets to a fuel that is transported across great distances for consumption in many different economic sectors. Increasingly, natural gas is the fuel of choice for consumers seeking its relatively low environmental impact, especially for electric power generation. As a result, world gas consumption is projected to more than double over the next three decades, rising from 23% to 28% of world total primary energy demand by 2030 and surpassing coal as the world's number two energy source and potentially overtaking oil's share in many large industrialized economies.

The growing importance of natural gas imports to modern economies will force new thinking about energy security. The Energy Forum of the James A. Baker III Institute for Public Policy and the Program on Energy and Sustainable Development at the Stanford University Institute for International Studies are completing a major effort to investigate the geopolitical consequences of a major shift to natural gas in world energy markets. The study utilizes historical case studies as well as advanced economic modeling to examine the interplay between economic and political factors in the development of natural gas resources; our aim is to shed light on the political challenges that may accompany a shift to a gas-fed world.

Disclaimer

This paper was written by a researcher (or researchers) who participated in the joint Baker Institute/Stanford PESD *Geopolitics of Gas Study*. Where feasible, this paper has been reviewed by outside experts before release. However, the research and the views expressed within are those of the individual researcher(s), and do not necessarily represent the views of the James A. Baker III Institute for Public Policy or Stanford University.

About the Author

Martha Olcott specializes in the problems of transitions in Central Asia and the Caucasus as well as the security challenges in the Caspian region more generally. She has followed interethnic relations in Russia and the states of the former Soviet Union for more than 25 years and has traveled extensively in these countries and in South Asia.

Olcott co-directs the Carnegie Moscow Center Project on Ethnicity and Politics in the former Soviet Union. She served on the faculty of Colgate University from 1974 to 2002. Olcott served for five years as a director of the Central Asian American Enterprise Fund. Prior to her work at the Carnegie Endowment, Olcott served as a special consultant to former secretary of state Lawrence Eagleburger. She holds both a M.A. and Ph.D. from the University of Chicago.

International Gas Trade in Central Asia: Turkmenistan, Iran, Russia and Afghanistan

*Martha Brill Olcott*¹

INTRODUCTION

When Turkmenistan became an independent country in December 1991, its president, Saparmurad Niyazov,² had little preparation for the tasks that he faced. The Turkmen leader likens himself to Attaturk³ taking the name Turkmenbashi in 1993,⁴ but his rule is more analogous to Josef Stalin's. Niyazov's face is broadcast constantly on state television, his picture put on the front page of newspapers and on posters at principal intersections of the country's roadways. There is even a 12-meter gold-plated statue of Niyazov that is solar driven to cast his countenance on much of downtown Ashgabat. He is the country's political and spiritual leader, the self-proclaimed author of "Rukhname," part history, part biography, part spiritual guide, and is studied one day a week in Turkmenistan's schools.

For all the idiosyncrasies of its ruler, Turkmenistan was and still is eager to attract foreign investment in its oil and gas sectors.⁵ In the early years, numerous representatives of Western firms came to Turkmenistan to assess what was on offer and judged Turkmenistan's gas an attractive prize if new transport routes could be found for it.

Two new routes offered the potential for good return on capital invested, with little need for technological innovation. The first would take Turkmen gas across Iran and then on through

¹ Meredith Williams deserves credit for her work in creating the map.

² Niyazov was named president of the Turkmen Soviet Socialist Republic on October 27th, 1990, and was elected to the post on June 21st, 1991. In January 1994, Niyazov's rule was prolonged until 2002 and on December 28th, 1999, he was named president for life.

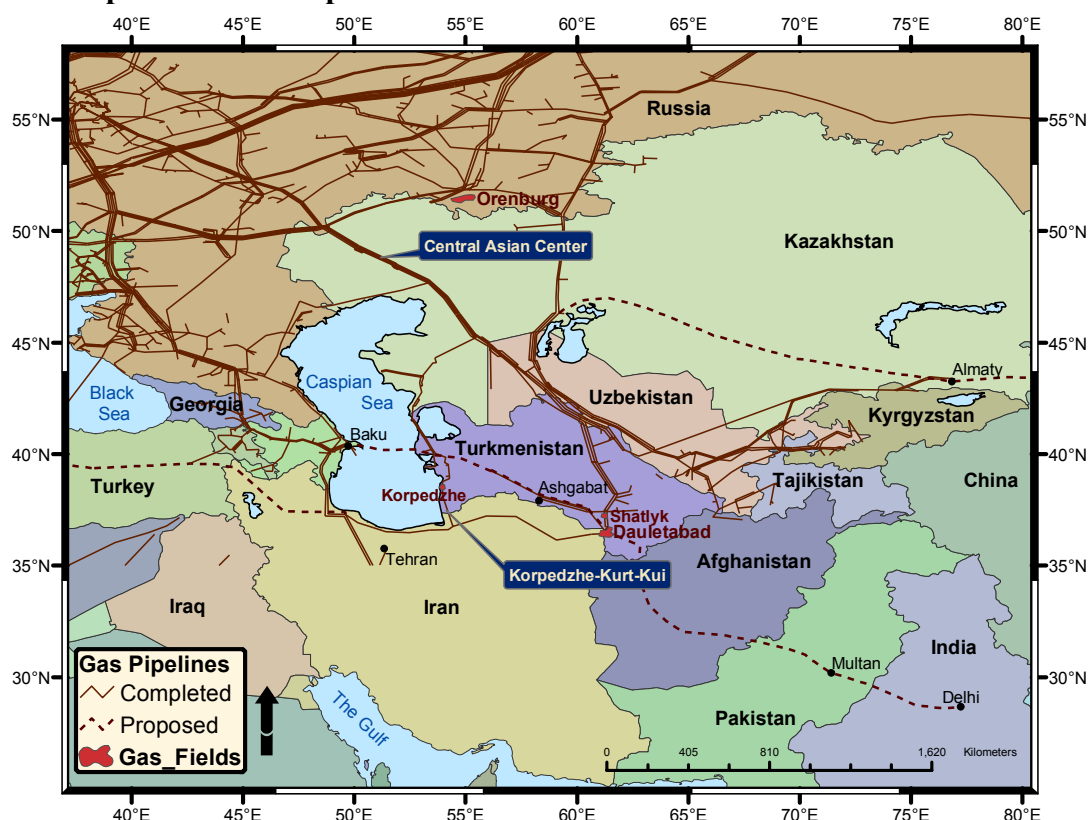
³ Attaturk, born Mustafa Kemal, is the founder of Turkish Republic.

⁴ The translation of Turkmenbashi, head Turkmen is roughly analogous to that of Attaturk, father of the Turks.

⁵ Turkmenistan has 2.86 tcm of proven gas reserves and 1.4 billion barrels of proven oil reserves. EIA. International Energy Outlook, April 2004. See Appendix A on Turkmenistan's exports of natural gas.

Turkey to markets in Europe. The second would send Turkmen gas through Afghanistan to markets in Pakistan and India. A third possibility, which offered long-term potential as new technology came on line, was to send Turkmen gas across Central Asia to the ports of eastern China and then possibly on to Japan. There was also strong U.S. government support for Turkmen gas to be shipped via a Baku-Tbilisi-Erzurum pipeline across the Caspian Sea, parallel to the Baku-Tbilisi-Ceyhan oil pipeline (see map, Figure 1).

Figure 1: Map of Potential Pipeline Routes



In the end, only a single pipeline was built, which moves Turkmen gas from Korpedzhe to Kurt-Kui (in Iran), and the larger Turkmen-Iranian pipeline and trans-Afghan pipeline projects were put on hold.⁶ Turkmenistan received little new capacity from the Korpedzhe to Kurt-Kui line (only 4.5 bcm per year) although the pipeline can

⁶ The Asian Development Bank remains committed to the idea of building a 1,600-km gas pipeline connecting Turkmenistan, Afghanistan, and Pakistan. Although a framework agreement for the development of the project was signed by the heads of the three governments in December 2002, the long-overdue ADB commissioned feasibility study was still unavailable in May 2004. For details on the project see www.adb.org.

handle 10 bcm per year with additional compression. So, at least for now, Turkmenistan is forced to market the bulk of its production through Russia, under terms that favor Russian interests over Turkmen ones.⁷

This paper explores the reasons why Turkmenistan has found it so difficult to market its gas. It looks at the relative roles played by geopolitical factors, the economics of transport and sale of gas, and how these affected the routes Turkmenistan currently uses, as well as the projects that were put on hold.

The case of Turkmenistan is an interesting one. Geopolitical considerations have played an enormous role in the postponement of Turkmenistan's two major new pipelines, as well as fueling the decision to build the smaller Korpedzhe to Kurt-Kui line. Plans for the larger Turkmen-Iranian-Turkish pipeline collapsed largely because of the near impossibility of getting international financing for projects in Iran as a result of continuing U.S. sanctions against that country. Building the smaller pipeline became a way of asserting the importance of the Turkmen-Iranian friendship and economic cooperation. Unocal abandoned plans for oil and gas pipelines to move oil and gas across Afghanistan in 1998, largely because of internal conditions in Afghanistan. However, this paper argues, even in the absence of these geopolitical factors, Turkmenistan's new pipeline projects may still have had difficulty moving forward, given the number of political and economic risks associated with doing business in Turkmenistan as well as in the transit countries.

TURKMENISTAN'S ECONOMIC AND POLITICAL LIFE

Turkmenistan became an independent country on December 25, 1991, following the dissolution of the Soviet Union.⁸ It is governed by a constitution that was adopted in May 1992⁹ which effectively concentrates all political power in the office of the president. There is no provision for a vice president or a prime minister. In the event of the death of the president, power is handed over to the chairman of the legislature.¹⁰ The president nominates all the candidates for the People's Council (Halk Maslakhaty),¹¹ chooses the members of the Cabinet of

⁷ EIU Turkmenistan Country Profile 2003, p. 22.

⁸ Turkmenistan declared its independence on October 27, 1991, but did not seek to exercise the powers of a sovereign nation until December 25, 1991. Until this time Turkmenistan's oil and gas sectors were under the direct supervision of Moscow.

⁹ The constitution was amended in 1995, 1999, and 2003.

¹⁰ Presidential elections are to be held within two months, and this constitutional provision was not modified to make this conform to changes made in 2003, which eliminated the parliament.

¹¹ Prior to the 2003 legislative reform the council was convened just once a year to confirm the decision of the parliament (Mejlilis), but now this cumbersome 2,507 member body supercedes the 50-member parliament and has become the country's principle legislative body. The rules on presidential succession have not yet been modified to reflect this change.

Ministers, the country's leading judges, and the heads of the provincial, municipal, and local administrations.

Niyazov frequently fires political appointees to insure their loyalty. An alleged coup against Niyazov in November 2002, purportedly led by former Foreign Minister Boris Shikhmuradov, led to the arrest of dozens of prominent figures and many members of their families. Shikhmuradov had been instrumental to attracting foreign investment to Turkmenistan's oil and gas sector. After his dismissal,¹² Niyazov further increased his direct control of the country's economy. No decision on foreign investment can be confirmed without his approval, and the allocation of foreign exchange credits requires his personal consent. Niyazov, who is said to take advice from a changing coterie of foreign businessmen,¹³ is generally distrustful of international economic advice.

The country's gross domestic product (GDP) is export driven, with the principal commodities (gas, oil, and cotton)¹⁴ all still largely under state control. After several years of declining GDP, Turkmenistan has begun to report high rates of economic growth due to increased gas exports through Russia, but all economic data coming from the republic should be viewed with suspicion.

In recent years, Russia's Gazprom¹⁵ has purchased gas on a half barter, half cash basis, with the price of gas in the 2003 accords set at \$1.08 USD per million British thermal units (mmbtu) or \$36 USD per thousand cubic meters (tcm).¹⁶ But the real price of the gas is very difficult to figure, given the opaque nature of the barter transactions, and given that the Russians provide the evaluations of the technical assistance and consumer goods that constitute the trade. Turkmen gas exports to Ukraine are also on a partly cash, partly barter basis.¹⁷ Until 2003 the trade with Ukraine was largely conducted through the

¹² Shikhmuradov became Deputy Prime Minister in 1992 and Foreign Minister in January 1993. In July 2000 he was appointed as Turkmenistan's special representative on Caspian affairs, and later served as ambassador to China. He resigned his posts in October 2001, and formed an opposition party the National Democratic Movement of Turkmenistan.

¹³ Shortly after independence this circle included former Secretary of State Alexander Haig, then it was said to be dominated Yosef Maiman, head of Israel's Merhav corporation, and now it is rumored to be centered around a small group of Turkish businessmen.

¹⁴ See Appendices B and C on Turkmenistan key economic statistics and trade.

¹⁵ Victor, David G. and Nadejda Makarova Victor. "Diversifying Russian Gas Export to Europe." Paper Draft for Geopolitics and the Emergence of a Global Natural Gas Market, 2004, pp. 21-22.

<http://pesd.stanford.edu/gasdrafts.html>.

¹⁶ Volumetric prices were converted to \$USD per mmbtu based on IEA estimated heat content of Turkmen gas of 33,410 btu per cubic meter.

¹⁷ Interfax Central Asia Report, April 18, 2003.

Florida-based International Trading Energy and Resources Association (Itera),¹⁸ the key officials of which are from Turkmenistan.¹⁹

Agriculture, especially cotton cultivation, remains the country's major source of employment, and most agricultural workers continue to live on Soviet-era collective farms. The Turkmen government sets production quotas for farmers, as well as a low state purchase price for raw cotton. This maximizes profit from transfer pricing, and much of the international trade in cotton is said to be controlled by the President's family.

In recent years, the amount of cotton harvested has been substantially less than what the state projected, but the Turkmen government continues to report increases in the standard of living. The average per capita income in Turkmenistan is \$950 USD, and this includes the market value of a host of state subsidies on communal services and foodstuffs.²⁰ These generous subsidies, combined with the dilapidated state of infrastructure in the gas and power supply system, have created unsustainable increases in domestic gas consumption.

According to the IEA, 80 percent of primary energy supplies in Turkmenistan are dependent upon natural gas, and only 55 percent of the power generated in the country goes to various industrial usages.²¹ Current domestic gas consumption is about 10 billion cubic meters (bcm) per annum, and the World Bank estimates that the Turkmen government spent \$600 million USD on subsidies to the energy sector in 2000, money the Bank feels could better be spent addressing the country's deteriorating energy infrastructure.²² But as recently as August 2003, President Niyazov reaffirmed that natural gas would be supplied to Turkmenistan's population free of charge.²³

Turkmenistan's private sector accounts for less than a third of the country's GDP,²⁴ and the participation of ordinary Turkmen in the private sector is severely hampered by sharp restrictions on access to foreign exchange.²⁵ The banking sector is weak and state dominated. Nominally, the Turkmen government is committed to both privatization and land reform, and the government of Turkmenistan has promulgated a series of laws designed to encourage private investment in the country, but Turkmenistan's legal system

¹⁸ "Gazprom Gives Away Turkmenistan-Ukraine Gas Sales." Moscow Times, February 28, 2003.

¹⁹ These include its president Igor Makarov and Valery Otchertsov, Chairman of Itera's management board who served as Minister of Economy and Finance and Vice-Chairman of the Cabinet of Ministers of Turkmenistan. For details on Itera see <http://66.129.88.179/index2.htm>.

²⁰ World Bank: World Development Indicators, 2003. EIU Turkmenistan Country Profile 2003.

²¹ See EIU Turkmenistan Country Profile, 2003 and IMF Staff Country Report, no. 99/140, December 1999.

²² EIU Turkmenistan Country Profile 2002, p.16.

²³ RFE/RL Central Asia Report, 22 August 2003.

²⁴ EBRD Transition Report, 2003.

²⁵ The differential exchange rate provides a valuable "rent" which is reportedly largely captured by Turkmen security sector is reported to play a key role in "managing" the currency "black" market.

offers little protection of private property.²⁶ This has stifled foreign direct investment, even in the oil and natural gas sectors.²⁷ Regardless of legal provisions to the contrary, the government of Turkmenistan insists on maintaining majority stakes and both managerial and operational control in all major projects.

Turkmenistan's oil sector is less attractive than that of either Azerbaijan or Kazakhstan. Of the three, it has the smallest proven oil reserves²⁸ and the lowest annual oil production.²⁹ Turkmenistan's two largest oil projects both have foreign partners, but none of the oil "majors" are currently involved in the country.³⁰ The government has repeatedly stated that its major oil and gas assets will not be privatized for at least ten to fifteen years.³¹ The unresolved legal status of the Caspian regime³² has further disadvantaged Turkmenistan,³³ as has the government's decision to divide the Caspian Sea into 30 distinct blocks for tender.³⁴ However, the Turkmen government has been able to attract investment in improving its refining capacity.³⁵

²⁶ These include resolutions calling for the privatization of state enterprises, a law on bankruptcy, and a law on investment. Further, in 1997, there was a major revision of the privatization law, which allowed domestic and foreign entities equal status in the privatization process and removed restrictions on majority ownership stakes being held by foreigners. For details see Turkmenistan: 2002 Investment Climate, August 16, 2002.

²⁷ 90 % if all FDI in Turkmenistan is in the oil and gas sector, See Appendix B on FDI for Turkmenistan from 1992-2003.

²⁸ Estimates range from 0.5 billion to 1.7 billion barrels of proven oil reserves, and Turkmenistan may have potential oil reserves of 38 billion barrels, making estimated Turkmen oil reserves slightly lower than Azerbaijan's. See <http://www.eia.doe.gov/emeu/cabs/caspstats.html>.

²⁹ Turkmenistan produced 159,000 barrels of oil per day in 2001, with estimated production slated to grow to 1 million barrels per day by 2010. EIA: Turkmenistan Energy Sector Report, May 2002.

³⁰ Cheleken, being developed in cooperation with Dragon oil, produces 10,000 barrels of oil per day, and Nebit Dag, which average production is 13,650 barrels of oil per day, is being worked in cooperation with Burren Oil. For a list of foreign firms involved in the oil and gas sector in Turkmenistan, see Appendix D.

³¹ RFE/RL Newswire, October 17, 2002.

³² There is no agreed upon legal regime for the development of undersea mineral reserves in the Caspian. Azerbaijan, Kazakhstan, and Turkmenistan favor dividing the sea into national sectors, corresponding to the length of each country's shoreline. Russia now supports this proposal. However, Iran is pressing for an equal sharing or 20 percent of the underwater wealth for each country.

³³ Turkmenistan claims ownership of the Kyapaz and Chirag fields, which Azerbaijan says lie within its sector of the Caspian. There have also been disputes over the boundaries between the Iranian and Turkmen sectors of the Caspian Sea. In March 2003 Turkmen-Iranian consultations were conducted to speed up the process of bilateral delimitation of the sea and making more partnership in developing hydrocarbon resources of sea border territories. *Turkmenistan Daily Digest*, March, 2003.

³⁴ EIU Country Report, March 1, 2003.

³⁵ The 116,500 barrels of oil per day Turkmenbashi refinery is currently in the second stage of its \$1.5 billion USD modernization process.

OVERVIEW OF TURKMENISTAN'S GAS INDUSTRY AND LEGAL REGIME THAT GOVERNS IT

Turkmenistan has proven gas reserves of approximately 2.86 tcm in assets spread across some 150 separate oil and gas deposits.³⁶ The exploitation of Turkmenistan's gas fields began in earnest in 1950s,³⁷ well after the gas industry was established in the Russian Volga region.³⁸ New fields continue to be discovered, and during the last ten years the Turkmen government has identified 17 new natural gas deposits in the Lebansky, Marynsky, and Deashoguzsky regions of the country,³⁹ some of which have begun to be developed. In addition, the president's economic program also calls for Turkmengaz,⁴⁰ the state-run company, to step up exploratory work in the Karakum and Kyzylkum deserts.⁴¹

The Turkmen government sought to provide a legal regime that would attract foreign investment in its oil and gas sector, in both the development and expanded exploitation of fields, and the transport sector. Though the government promulgated many laws, it provided no real protection for investments.

The existing legislation includes a Law on Foreign Investment enacted in May 1992 and amended in April 1993.⁴² This law guarantees that foreign investments are not subject to nationalization or requisition. Foreign firms are granted concessions between 5 and 40 years for onshore and offshore areas containing natural resources, as well as for investment in enterprises that explore, develop, extract, and use natural resources.⁴³ Foreign firms may carry out their operations based on licenses extended through tenders, as well as through direct negotiations.⁴⁴ Foreign firms working with domestic companies are eligible to receive licenses in the "Program of Social and Economic Development of Oil and Gas Industry through 2010" that was adopted by the government in 2001.⁴⁵

³⁶ EIA. "Central Asia: Turkmenistan Energy Sector." May 2002. See Appendices E and F on oil and gas field data and deposits.

³⁷ IEA. *Caspian Oil and Gas*, 1998, p. 252.

³⁸ *Russian Oil and Gas (History and Perspectives)*, The Association of International Cooperation, Moscow, 1995.

³⁹ EIA Turkmenistan Country Analysis Brief on Turkmenistan Energy Sector, May 2002.

⁴⁰ Turkmengaz is the main gas producer in Turkmenistan.

⁴¹ See Appendix G for a list of relevant laws and regulations.

⁴² This was followed by the Law on the Subsurface in December 1992.

⁴³ These are covered by the Law on Foreign Concessions signed by President Niyazov on October 1, 1993. The full text of the law is available at <http://www.tax.gov.tm/english/law0006en.html>. *World Oil*. Interview with Kurbannazar Nazarov, Minister of the Oil and Gas Industry and Mineral Resources of Turkmenistan, October 2001.

⁴⁴ Presidential Resolution # 3999 from December 18, 1998 defines the legal mechanism for issuing licenses for the right to conduct oil operations. The terms of conduction oil operations are defined by contract. *World Oil*. Interview with Kurbannazar Nazarov, Minister of the Oil and Gas Industry and Mineral Resources of Turkmenistan, October 2001.

⁴⁵ This was under the "Program to License Hydrocarbon Prospecting and Development" which the program contained. See *World Oil* interview with Kurbannazar Nazarov, Minister of the Oil and Gas Industry and Mineral Resources of Turkmenistan, October 2001.

The Law on Foreign Investment offers foreign investors an anti-discrimination pledge, promising that they will not be subject to government-imposed conditions that are less favorable than those applied to national investors. The Law also includes a stabilization clause that provides foreign investors a ten year grace period during which they will not be affected by changes in the legal regime.⁴⁶

The Law on Hydrocarbon Resources, also known as the Petroleum Law, which dates to March 1997, has been the most important piece of legislation for the development of Turkmenistan's gas industry. It declares hydrocarbon resources to be national property and assigns the right to manage them to the Cabinet of Ministers, which is also responsible for an overall strategy for the development of the country's hydrocarbon reserves, including the rates of production and the rules for the conservation of hydrocarbons, as well as the rules for the protection of the environment,⁴⁷ the setting of work conditions and the compilation of statistical reports on reserves.⁴⁸

The law permits foreign companies to be involved in oil exploration and production, through the negotiation of production sharing arrangements (PSAs) and/or joint venture agreements (JVAs), and describes various types of licenses that can be issued on the basis of either a tender or through direct negotiations.⁴⁹

Turkmen legislation also sets the tax structure for projects, but leaves a lot of room for negotiation. Legislation stipulates a maximum profit tax of 25 percent, enumerates tax deductible expenses and grants that the determination of what constitutes taxable profit is to be determined in the licensing and PSAs.⁵⁰ The size of royalties is also to be determined in each agreement, and has ranged from 3 to 15 percent. The government also provided

⁴⁶ Other relevant legislation includes the Law on Currency Regulation, on Foreign Economic Activity, and Resolution of the President of Turkmenistan #2 1603 on the Guarantees of Protection of Foreign Investment and Capital, November 26, 1993.

⁴⁷ In October 1999 the government issued "Rules and Regulations for the Development of Hydrocarbon Fields in Turkmenistan," which included information and guidelines for the preparation of environmental impact assessments, including the role of the public, as well as information on environmental monitoring, spill reporting, waste storage and transportation.

⁴⁸ Article 4 of the Petroleum Law.

⁴⁹ A June 1997 Presidential decree on "The steps to be taken in order to implement the Law of Turkmenistan on Hydrocarbon Resources (the Petroleum Law)" provided for the creation of a "competent body" that would be responsible for negotiations in this sector, headed by a deputy Chairman of the Council of Ministers, which was to establish rules and regulations for the development of hydrocarbon fields, to handle tenders, elaborate model contracts, as well as the negotiation, suspension, and revocation of contracts. It also was charged with controlling contract fulfillment. Its work was to be complemented by the State Agency for Foreign Investment (SAFI), which was authorized to determine which foreign oil and gas service companies would get contracts in the country.

⁵⁰ Article 48 of the Petroleum Law provides that petroleum contractors are to pay "a tax on profit at the rate established by the legislation of Turkmenistan." Article 3 of the Law on Taxation of Profit sets this rate for legal entities at 25 percent.

investors with model PSA agreements. In addition, Turkmen legislation provides that the state pipeline company set a transportation tariff, and that upstream investors must negotiate tariffs with that company.

Turkmenistan also has a value added tax (VAT) of 20 percent.⁵¹ While oil and gas production are generally not subject to the VAT, exports can be. However, oil exported by a company working under a PSA or JVA⁵² regime is supposed to be free of VAT assessment.⁵³ In addition, the law is not clear about the export of production, and according to a report issued by two lawyers who have worked in the Turkmenistan, there were problems when it was sought to be applied to the oil and gas sector.⁵⁴

Foreign investors in Turkmenistan are guaranteed the right of international arbitration. Article 55 of the Petroleum Law gives contractors protections that are “in accordance with international law” in addition to the protections that are stated in the license and agreements that they negotiate. Most importantly, the investor’s tax liabilities are considered to be “frozen” at the moment of signing a petroleum operations agreement. Similarly, Article 56 expressly allows parties to seek international arbitration for resolution of any disputes “associated with issuance, refusal to issue, suspension of effect and/or annulment of a license, as well as associated with performance of a contract.”

However, subsequent Turkmen legislation sharply limits the applicability of these rights. The October 1999 Rules and Regulations⁵⁵ for the development of the petroleum sector provide for an administrative hearing system for adjudication of possible violation of the laws by parties that have contracted with the Turkmen government. They provide

⁵¹ Jonathan H. Hines and James B. Varanese “Turkmenistan’s Oil and Gas Sector: Overview of the Legal Regime for Foreign Investment.” International Energy Law and Taxation Review, January 2001.

⁵² Model Production Sharing Agreement and Model Joint Venture Agreement for Petroleum Exploration and Production in Turkmenistan were approved on March 20, 1997. The Petroleum Law of Turkmenistan defines “model agreement” as a standard form of an agreement elaborated by the competent body for drafting a contract and entering into a contract with a contractor. “Joint Venture” is defined as an activity carried out by an aggregation of persons, without constitution of a new legal entity, jointly participating in the supply of technical and financial resources for implementation of the contract entered into between the competent body and such aggregation. “Production Sharing Agreement” gives the contractors the right to carry out exploration, development, and production of petroleum in the contract area. The full texts of these documents are available upon request. See also Appendix G on laws and regulations in Turkmenistan.

⁵³ In addition the Petroleum Law specified that all materials and equipment that are to be used solely in the petroleum operations are exempt from customs duties, as long as they are registered with the State Commodity and Raw Materials Exchange.

⁵⁴ Jonathan H. Hines and James B. Varanese “Turkmenistan’s Oil and Gas Sector: Overview of the Legal Regime for Foreign Investment.” International Energy Law and Taxation Review, January 2001.

⁵⁵ In 1999-2000, Turkmenistan adopted new detailed administrative rules for conducting oil operations, including the presidential decree no. 4416 on Further Measures to Improve the Principles of the Use of Hydrocarbon Resource and Agency International Regulations and Operations Rules. For details see Jonathan H. Hines and James B. Varanese “Turkmenistan’s Oil and Gas Sector: Overview of the Legal Regime for Foreign Investment.” International Energy Law and Taxation Review, January 2001.

for the Competent Body⁵⁶ to bring charges and appoint an administrative judge from within its ranks to hear evidence and render a decision. However, the Competent Body will not do so if this contradicts dispute-resolution mechanisms that have been built into the actual contract in question, provided that the Competent Body agreed to this contract initially.⁵⁷

Both the Rules and Regulations and the Petroleum Law fail to provide a specific provision binding Turkmenistan to the enforcement of awards rendered in the arbitration of disputes, and there is no express sovereign immunity waiver contained in either of these pieces of legislation, or in any other law of the Turkmen republic.⁵⁸ Lawyers working in the Caspian oil sector are also mindful of the initial weak track record of the Turkmen government, which has been subject to—or threatened with—international arbitration in a number of its early contracts, including some related to the Trans-Afghan pipeline projects discussed below.

Turkmenistan is not a member of the International Center for the Settlement of Investment Disputes of the New York Convention of 1958 on the Recognition and Enforcement of Foreign Arbitration Awards. It is, however, party to the International Center for Settlement of Investment Disputes (ICSID) convention,⁵⁹ and is also a signatory of the 1994 Energy Charter Treaty.

The warnings of the U.S. government to those wanting to do business in Turkmenistan could not be any more explicit. As it wrote in an August 2002 investment climate statement:

“The government of Turkmenistan has a history of capricious and arbitrary expropriation of property an local businesses and individuals, including foreign investors. Such actions have included declaring ownership certification granted by former government officials invalid without supporting reason. Further, the government has often refused to pay any compensation, much less fair market value, when exercising the right of eminent domain. Most notably, the government expropriated a Western oil company’s compound in Ashgabat in response to doing an arbitration case with the company in an internationally recognized forum... Finally, a change in the leadership of the government entity that signed the original contract often triggers a government call for reevaluating an entire contract including profit distribution, management responsibilities and payment schedules.”⁶⁰

⁵⁶ See footnote 49 for details on what constitutes the Competent Body.

⁵⁷ Much of this legislation has a hypothetical quality, as unlike Kazakhstan and Azerbaijan, there are no major oil or gas deposits being worked by a consortium of Western firms.

⁵⁸ Jonathan H. Hines and James B. Varanese “Turkmenistan’s Oil and Gas Sector: Overview of the Legal Regime for Foreign Investment.” *International Energy Law and Taxation Review*, January 2001.

⁵⁹ See <http://www.worldbank.org/icsid/about/about.htm>.

⁶⁰ U.S. embassy in Ashgabat, 2002 Investment Climate Statement Available at <http://www.bisnis.doc.gov/bisnis/isa/020819txics.htm>.

BUILDING NEW PIPELINES FROM TURKMENISTAN

Turkmenistan-Iran-Turkey

The government of the Islamic Republic of Iran looked at the independence of Turkmenistan as creating new opportunities for its own gas industry. Like the Russians, the Iranians believed that the potential synergies between their country and Turkmenistan could help promote the expansion of their role as a global gas provider. The construction of a pipeline linking the Kricheh (Korpedzhe) gas deposit in western Turkmenistan to Kurt-Kui in northern Iran was intended to be the first step in creating a long-lasting energy partnership between the two countries.

Iranian officials viewed the collapse of the Soviet Union as an opportunity for strong geopolitical realignments in the region, and they worked hard to ensure that Teheran would be at the center of them. They recognized that Turkey had competing views of what these geopolitical alignments might entail, but Iranian officials believed that Turkmenistan's gas created an opportunity for the two countries to work in concert.

The Turks were not averse to considering Iran as a potential source of gas for the Turkish market and for transit across Turkey to European markets. To this end, Turkey and Iran signed a \$23 billion USD agreement for the supply of gas from Iran (including Turkmen gas) to Turkey in August 1996. This was an agreement in principle only; it created no real financial obligation on either side.

The first formal Iranian proposal for a pipeline came in August 1994, was finalized in January 1995, and was initially conceived in the context of discussions on building a gas pipeline to link Turkmenistan to Turkey and also to European gas markets via Iran. The broader project was one that had strong support in both Iran and Turkey.

The Korpedzhe to Kurt-Kui pipeline was intended as a first step in the comprehensive linkage of the Turkmen and Iranian pipeline systems. The idea was to create a 1,420-mm pipeline that would traverse a 1,400-km route through Iran and Turkey. The project was expected to take between 4 and 8 years to build, and it was expected that the pipeline would have an eventual capacity of 28 bcm per year (18 bcm for the Turkish market and 10 bcm for the European market). The overall project was estimated to cost between \$1.6 and \$2.5 billion USD. The pipeline project designers envisioned that Turkmen gas would provide 2 bcm per year in the start-off phase, growing to 7 bcm per year, and that this would be supplemented by 3 bcm per year of Iranian gas.

Turkey was the major intended off-taker,⁶¹ as in the mid-1990s the Petroleum Finance Company estimated that Turkey's demand for gas would rise rapidly, from 9 bcm in 1997 to 52 bcm in 2010.⁶² After the Turkish economic crisis of the late 1990s these estimates were scaled downward.

Interestingly, one of the first discussions of the Turkmenistan-Iran-Turkey pipeline was sponsored by former U.S. Secretary of State Alexander Haig, who helped arrange a visit by President Niyazov to Washington D.C. in 1993, and who formed a consortium to advance the idea of building a small pipeline to carry modest amounts of Turkmen gas across Iran to Turkey. Haig was reported to have sought and won endorsements from energy ministers in Kazakhstan, Iran and Turkey for his venture, which was registered in the British Virgin Islands.⁶³

The Turkmen were keen on the project, and in February 1995 the Interstate Council on Export of Oil and Gas⁶⁴ formed an international joint-stock company, the Turkmenistan Transcontinental Pipeline (TTP), whose goal was the creation of a 1,400-km pipeline with an annual capacity of 15-25 bcm. The Interstate Council formed the TTP to plan, finance, construct, and operate this pipeline. Thirty-five percent of financing was to come from the Interstate Council and 65 percent from international sources, including the World Bank, the European Bank for Reconstruction and Development (EBRD), and the Japan Overseas Investment Association.⁶⁵ But in 1996, the Turkmen government backed away from the project when it became clear that continued U.S. opposition to projects involving Iran would not get international funding.⁶⁶

In October 1995, certain that the larger pipeline project would be slow to develop, the National Iranian Oil Company of Iran (NIOC) decided to begin construction of the Korpedzhe to Kurt-Kui pipeline.⁶⁷ It signed a 25-year contract with the Turkmen government to assure its supply.⁶⁸

⁶¹ Ira Joseph, "Gas Exports: Stranded Resources in a Unique Predicament," a working paper prepared for the Baker Institute in 1998, estimates that Turkey would pay \$260-\$270 USD per mmbtu at its border. [Http://www.rice.edu/projects/baker/Pubs/workingpapers/efac/efac3.html](http://www.rice.edu/projects/baker/Pubs/workingpapers/efac/efac3.html).

⁶² Lelyveld, Michael. "Russia/Turkmenistan: the Race to Turkey's Energy Market." RFE/RL October 21, 1997.

⁶³ David B. Ottoway and Dan Morgan "Gas Pipeline Bounces Between Agendas" Washington Post October 5, 1998, p. A1.

⁶⁴ The Interstate Council, set up in the spring of 1994, included fuel department chiefs of Turkmenistan, Iran, Turkey, Kazakhstan, and Russia, as well as representatives from Chevron, Mobil Oil, and Mannesmann. "Pipeline to Supply Gas to Europe via Iran, Turkey." FBIS, January 23, 1995.

⁶⁵ Albion, Adam Smith. "Playing Geopolitics in Central Asia: the Turkmenistan-Iran-Turkey Gas Pipeline Project." ASA-4, Hanover, February 1995, p.10.

⁶⁶ EIU Turkmenistan Country Reports January 25, 1997.

⁶⁷ INRN, October 14, 1996.

⁶⁸ Caspian Business Report, September 18, 1998.

The Korpedzhe to Kurt-Kui pipeline had a very limited goal—to facilitate the supply of gas to a remote part of the country, where annual demand was 6 bcm per year.⁶⁹ The project was a modest one, to build 200 kms of 1,000 mm (40 inch) diameter pipeline, at a cost of roughly \$190 million USD. The pipeline would initially carry 4 bcm per year (8 bcm at peak capacity) and would eventually carry 13 bcm.⁷⁰ The cost of the Korpedzhe to Kurt-Kui pipeline was less than building a new pipeline to link northwestern Iran to the nearest domestic natural gas source in Iran.

Iran agreed to finance 90 percent of the cost of the pipeline, to be paid back through gas deliveries over a three-year period. The contractual price for Turkmen gas was set at \$1.20 USD per mmbtu (\$40 USD per tcm), with 35 percent of the gas allocated for repayment of the loan during the first three years. The loan related solely to the 140 kms of pipeline in Turkmen territory. Iran also agreed to bear the cost of further developing the Korpedzhe gas field, and the NIOC constructed a facility at the Korpedzhe field to process gas prior to pipeline transport. Iran required that the loan be paid back by gas deliveries over the course of three years.⁷¹ The payback of the loan has yet to be announced. The financial terms for the Iranians were even better than the paperwork of the transaction implies; the \$190 million USD cost was figured in inflated local currency but was paid for in gas, which the Iranians planned to sell to Turkey through what was a variant of a swapping system.

The pipeline was opened in December 1997.⁷² But the amount of gas transported through the pipeline has fallen short of the Turkmen government's planned goals. In 2000, Iran imported 3 bcm, and in 2001, 4.4 bcm, but exports to Iran rose sharply in early 2003, and Turkmenistan exported 6.5 bcm to Iran in 2003 and 2 bcm in the first two months of 2004.⁷³

For the Iranian government, the size of this project was so small that they were able to view it as a form of development aid, effectively offered to cement relations between the two states. But the construction of the pipeline did little to satisfy Iran's desire to be a major regional player in Central Asia, and to use Turkmenistan as a launching pad for this effort.

⁶⁹ RFE/RL, *Russia/Turkmenistan: The Race to Turkey's Energy Market*, October 21, 1997.

⁷⁰ Petroleum Finance Company Memorandum, August 6, 1997.

⁷¹ Tehran IRNA, "Turkmenistan: New Gas Pipeline to Iran to be Financed Within Six Months." March 17, 1997.

⁷² In addition, in August 1999, the Iranian Gas Company began installing a gauge assembly at Chalyoyuk, along the Turkmen-Iranian border.

⁷³ Turkmenistan is expected to export 7 bcm of natural gas to Iran in 2004. EIU, April 1, 2003. www.Turkmenistan.ru April 6, 2004.

Iran had hoped that the revitalization of the Economic Cooperation Organization (ECO)⁷⁴ would help facilitate Teheran's plans for dominance in the region in general and for marketing Turkmenistan's gas supply in particular.⁷⁵ The May 1997 ECO summit in Ashgabat was used as an occasion for the Presidents of Turkmenistan, Turkey and Iran to sign a memorandum of understanding which provided for the eventual export of up to 30 bcm per year of Turkmen gas to be transited across Iran to Turkey. Turkmenistan's gas was to come from the large Dauletabad gas field, the resource for any major new pipeline from Turkmenistan (this field also figured in the Unocal pipeline proposal that was being developed at the same time).

This underscores the degree to which the development of pipelines from Turkmenistan was a zero sum game throughout, in which one route (be it Russia, Iran, or Afghanistan) would “win” and all other major pipeline schemes would be abandoned.

From the Iranian point of view, the planned pipeline was particularly attractive as it would have maximized the profitability of Iranian gas, which would be swapped for Turkmen gas sent west through the Turkish pipeline system. The Turkmen gas would move into Iran's northern gas pipeline network to supply Iran and its other prospective customers.

The Iranians pushed this planned pipeline project more than the Turkmen did. From the onset, the Turkmen seemed at least as interested in the Afghan route as in the prospect of transit across Iran. Although Teheran might have had the ability to fund this pipeline using its own resources, it is a major point of contention among members of that country's oil industry that Iran decided to seek the development of the pipeline through the creation of an international consortium, and to integrate this pipeline into the broader plans for the development of Iran's own vast reserves. The alternative would have been to “capture” Turkmen reserves through a stage by stage process of building new pipeline links, something that the Iranian government might well have had the resources to support through the first stage of long-term Turkmen asset “capture”

The Iranians were right about the level of international interest in the project. Royal Dutch Shell was quick to express interest in the project, as did Snamprogetti (Italy) and Gaz de France. This made the project vulnerable to censure by the U.S., which in 1996 had banned foreign investment of more than \$40 million USD in the Iranian energy sector as part of the Iran and Libya Sanctions Act (ILSA).⁷⁶

⁷⁴ ECO was expanded to include Azerbaijan and eventually all five Central Asian States, who joined Turkey, Afghanistan, Iran, and Pakistan in this organization.

⁷⁵ <http://www.ecosecretariat.org/>.

⁷⁶ Iran and Libya Sanctions Act (ILSA) was signed into law on August 5, 1996 and was renewed in July 2001. http://www.us-israel.org/jsource/US-Israel/iran_libya_sanctions_act_sum.html.

In August 1997 Shell submitted its proposal for construction of a natural gas pipeline to President Niyazov. Despite Washington's decision in October 1997 that ILSA sanctions applied to the project, in December 1997 Iran, Turkmenistan and Turkey signed an agreement with Royal Dutch Shell for the latter to prepare a feasibility study and an export scheme for this pipeline project. That same month, President Niyazov publicly endorsed the idea of Shell taking the lead in the construction of this project, and in February 1998 Shell began a formal feasibility study for this project.⁷⁷ The feasibility study for the 3,800-km gas pipeline running from the Shatlyk gas field across northern Iran, on to Dogubayazid in Turkey, and then through to Bulgaria to allow it eventual access to the German market was completed by 1999. But after years of maintaining a small office in Turkmenistan, Shell withdrew from the country in April 2003.⁷⁸

Many factors contributed to Shell's decision. Turkmenistan was certainly a difficult country to do business in, and there was little incentive for Shell to remain in Ashgabat solely to try to gain control of transit rites to Turkmenistan's reserves. But Iran was a much bigger prize, and the small investment in Turkmenistan would prove to be a bargain if it helped Shell even marginally to position itself to take a commanding role in Iran.⁷⁹

At first it looked as if Washington would support the pipeline project, as it was in line with the Clinton administration's policy of creating multiple pipelines for the export of Caspian oil and gas. Moreover, the design of the project allowed the administration to view this as construction of a pipeline that transited Iran, rather than supporting the development of Iran's gas industry itself. Part of the reason for the optimism on the part of the pipeline project sponsors was that in early July 1997, the U.S. Department of State dropped its earlier objections to a new section of pipeline between Iran and Turkey, which was promoted by the Turkish state pipeline company Botaş, as well as National Iranian Gas Company (NIGC).

The Turkish proponents of the plan successfully argued that in fact three separate pipelines were being built, two across Turkey and one across Iran. The Iranian pipeline went from Tabriz to the Turkish border—some 270 kms—and was to be financed by Iran. The first Turkish pipeline, a 300-km pipeline from the Iranian border to Erzurum, had a price tag of \$117.5 million USD and would be financed and constructed by a local Turkish consortium.⁸⁰ The longer Turkish pipeline, from Erzurum to Ankara via Sivas, a route of 874 kms, cost roughly \$500 million USD, and was to be financed by bids sought both

⁷⁷ Caspian Business Report 1.6 December 18, 1997, EIU Turkmenistan Country Reports. October 12, 1997, IMF report 1998.

⁷⁸ "Shell Leaves Turkmenistan." *Vremya Novostey*, April 10, 2003.

⁷⁹ Especially as we learned subsequently that Shell really needed to find and book new reserves, to make up for their overestimation of reserves in other countries.

⁸⁰ Alexander's Gas and Oil Connections, vol. 2 issue no. 15, May 26, 1997.

locally and internationally.⁸¹ Botaş began construction on the Turkish pipeline in November 1998. The construction works, undertaken under five sections (Dogybayazit-Erzurum, Erzurum-Sivas, Sivas-Kayseri, Kayseri-Anakar, and Kayser-Konya), were completed and gas delivery from Iran was initiated on December 10, 2001.⁸² But by the time that pipeline opened, the market for Iranian (and Turkmen) gas in Turkey was declining, in part due to the Turkish economic crisis, but even more importantly because of competing sources of gas that were available to the Turkish market.

The plan for the larger Turkmen-Iranian Pipeline had floundered in large part because of the U.S.-Iranian policy, which has also hampered the development of Iran's own vast gas potential. At the same time, by 2001, and certainly by late 2002, it was clear that the U.S. supported oil and gas pipelines linking Baku, Azerbaijan, to the Turkish port of Erzurum and that the Iranian-Turkish pipeline was going to be built, creating yet another source of gas entering Turkey. Like Iran, Russia hoped to dominate the Turkish market, and Gazprom had linked up with Turkish economic interests that hoped to supply between 30 bcm and 50 bcm per year to the Turkish market by 2010.⁸³

The Trans-Afghan Pipeline

Washington's posture on Iran made plans for the development of a Trans-Afghan pipeline more attractive, although not necessarily more feasible. The Clinton administration was very supportive of the idea that a U.S. firm could help the Turkmen government break Russia's hold on the export of their gas, for much the same reason that it was supporting the transport of Azerbaijan's (and if possible Kazakhstan's) oil and gas via Turkey.

The initial proposal for the development of a Trans-Afghan pipeline, though, was made by Bidas, an Argentine firm whose CEO, Carlos Bulgheroni, began courting Turkmenistan's President Saparmurad Niyazov in 1991. The entire saga of Bidas in Turkmenistan is steeped in controversy.

⁸¹ Alexander's Gas and Oil Connections, vol. 2 issue no. 15, May 26, 1997.

⁸² Lelyveld, Michael. "Iran: Turkey Seeks to Avoid Gas Penalties." RFE/RL, December 30, 1999. <http://www.botas.gov.tr/eng/index.html>.

⁸³ The Blue Stream Pipeline Company was formed in 1998 to operate a pipeline between Russia and Turkey via the Black Sea. ENI and Gazprom signed an agreement for sale of 565 bcf of Russian natural gas per year. Saipem was responsible for the basic and detailed design phases of the pipeline that cost \$3.4 billion USD. For details on the Blue Stream pipeline see http://www.offshore-technology.com/project_printable.asp?ProjectID=2710.

Bridas acquired a 75 percent stake in the Yashlar natural gas field in southeastern Turkmenistan after an international tender in 1991,⁸⁴ as well as the rights to develop the Keimir oil field.⁸⁵ Shortly thereafter, in 1993, Bulgheroni began lobbying the Turkmen president to build a \$1.9 billion USD pipeline along a 1,400-km stretch from Yashlar across Afghanistan to Pakistan. The projected price of this pipeline eventually rose to \$2.5 billion USD.⁸⁶

According to the Wall Street Journal's Hugh Pope, Bulgheroni was sent to Pakistan in June 1994 as a special emissary of the Turkmen government, and in March 1995 Turkmenistan and Pakistan agreed to do a feasibility study on the pipeline.⁸⁷ Bridas committed to complete the pipeline within two and a half years of beginning construction, with the expectation that it would be operational by early 2001. Bridas planned to supplement Yashlar gas with gas from Iran, Uzbekistan, and Afghanistan.⁸⁸

But in October 1995 President Niyazov signed an agreement with Unocal and its partner in the project, Delta Oil of Saudi Arabia, providing support for Unocal and its partners to explore a trans-Afghan pipeline project to move Turkmenistan's gas to south Asia.⁸⁹ These negotiations came as a surprise to Bridas, which thought it had a firm commitment from Turkmenistan's government for Bridas to lead a pipeline consortium.

Bridas' problems with the Turkmen government preceded, but were likely not wholly unrelated to, Unocal's growing interest in Turkmenistan. The Argentine firm was prevented from exporting oil from the Keimir block in 1994, although exports resumed again in 1995 after the share of profits to Bridas was lowered. Then, in November 1995, the Turkmen government declared Bridas' licenses and contracts to be "unacceptable," and announced that the Keimir joint venture would be terminated in 2000 rather than 2018, insuring that Bridas' investment would never return a profit.⁹⁰ In December 1995 Bridas was forced to halt oil exports from Keimir, which was producing over 15,000 barrels of oil per day. Finally, in early 1996 the Turkmen government began to seize Bridas' wells.

⁸⁴ Bridas claimed Yashlar held 26 tcf of reserves. For an account of Bridas' claims see Hugh Pope. "Pipeline Dreams: How Two Firms Fight for Turkmenistan Gas Landed in Texas Court," Wall Street Journal, January 19, 1998. Gopul, Philip and Pavel Ivanov. "Learning the Rules of Central Asia's Energy Game." Asia Times, April 29, 1997.

⁸⁵ Kemir was reported to have 12.2 mm tons of oil and 18 bn cm of natural gas "Bridas Likely to Pull Out of Turkmenistan." Alexander's Gas and Oil Connection, Volume 5, issue 21, 16-11-2000.

⁸⁶ Report on the Turkmenistan-Afghanistan-Pakistan Pipeline, Petroleum Finance Company Ltd., October 1997.

⁸⁷ Bridas also signed a contract to deliver 20 bcm of gas to Pakistan on a take-or-pay basis.

⁸⁸ Hong Kong AFT, 4 May 1997.

⁸⁹ Timeline of Competition between Unocal and Bridas for the Afghanistan Pipeline.

http://www.worldpress.org/specials/pp/pipeline_timeline.htm

⁹⁰ Hugh Pope. "Pipeline Dreams: How Two Firms Fight for Turkmenistan Gas Landed in Texas Court," Wall Street Journal, January 19, 1998.

The Argentine firm, which had invested over \$400 million USD in Turkmenistan, decided to take its case to international arbitration, and also filed suit against Unocal in a Texas court, alleging that the company had interfered with the Turkmen government.⁹¹ An international arbitration court in Texas dismissed the suit on October 5, 1998, but in September 2000 the court ruled in favor of Bridas in its claims against the Turkmen government, which was ordered to pay the firm \$600 million USD in damages.⁹² Although Bridas sold off most of its assets in Argentina to Amoco in 1996, it continues to keep its plans for a Trans-Afghan Pipeline on its website and to seek payment of damages.

While legal action was still pending, in August 1996 Unocal, Delta, Gazprom, and Turkmenrosgaz signed a memorandum on a \$2 billion USD project to ship gas from Turkmenistan's Dauletabad field to Pakistan via Afghanistan, and established a consortium to control this trade.⁹³ In July 1997 officials from Turkmenistan and Pakistan, as well as representatives from Unocal and Delta, signed a formal agreement to build a 1,450-km pipeline to move 20 bcm per year from the Dauletabad field to Pakistan. The agreement called for a formal consortium to be formed by October 1997 and for construction of the pipeline to begin by December 1998, with all work to be completed by 2001. The agreement also made reference to the building of a possible 640-km spur to New Delhi. The total cost of the project was estimated to be between \$2 billion and \$2.7 billion USD.⁹⁴

In September 1997 Unocal and Pakistan concluded a 30-year gas pricing agreement, in which Pakistan agreed to pay an upper limit of \$2.05 and a lower limit of \$1.60 USD per mmbtu of gas delivered to Multan, Pakistan. The price of gas was figured on 15 cents per mmbtu transit fee for Afghanistan, a preliminary figure reached without consultation with members of the Taliban "government." The Taliban took offense to this, and were subsequently quoted as saying that this price was too low and that they would not negotiate further with Unocal.⁹⁵

Unocal, though, went on to try and solidify the project. In October 1997, the Central Asian Gas Pipeline consortium (CentGas) was formed at Unocal's direction, and Unocal received a 46.5 percent stake in the project, with Delta Oil allocated a 15 percent,

⁹¹ U.S. EIA, Turkmenistan, September 1997. <http://www.converger.com/eiacad/turkmen.htm>.

⁹² "Bridas Likely to Pull out of Turkmenistan." Alexander's Gas and Oil Connections. Vol. 5, nu. 21, November 16, 2000.

⁹³ Unocal and Delta jointly held an 85 percent interest, Gazprom a 10 percent interest. and Turkmenrosgaz a 5 percent interest. OMRI Daily Digest, August 14, 1996.

⁹⁴ EIA, Turkmenistan, September 1997, <http://www.converger.com/eiacab/turkmen/htm>

⁹⁵ As reported by Petroleum Finance Company, Ltd. Report on Turkmenistan-Afghanistan Pipeline, October 1997.

the government of Turkmenistan 7 percent, and Gazprom 10 percent.⁹⁶ When Gazprom pulled out, the percentage shares were redistributed slightly.⁹⁷

The pipeline that they envisioned was to have a diameter of 1,200 mm and to extend 1,271 kms from the Afghanistan-Turkmenistan border, generally following the Herat to Kandahar road through Afghanistan, crossing into Pakistan in the vicinity of Quetta, and terminating in Multan, where it would be connected to an existing pipeline system. As part of the project, Turkmenistan pledged to construct a pipeline that would link with the CentGas line at the border and stretch 169 kms to the Dauletabad field. The Trans-Afghan pipeline was to have 5 compressor stations, and was priced at \$1.9 billion USD with an additional \$600 million USD necessary for an extension into India. The major off-takers of the project were Pakistan and India.

Pakistan was strongly supportive of the project, as the Pakistanis expected that demand for natural gas would rise by fifty percent between 2003 and 2006, and the government of Pakistan hoped to make gas “the fuel of choice” for future electric power generation projects.⁹⁸ This required that imports of natural gas increase sharply. Official Pakistan estimates of the time put the need for imports at 10 bcm per day by 2002 and 31 bcm per day by 2010.⁹⁹

The Trans-Afghan pipeline was only one of the gas import options that the government of Pakistan was considering. An alternative pipeline, known as the Dolphin Project, was proposed to run from the North Dome gas field in Qatar under to Arabian Sea to Pakistan, a distance of 1,610 kms. The United Offsets Group, a UAE state-owned corporation, signed a preliminary memorandum of understanding for this project with Qatar, Oman, and Pakistan in 1999.¹⁰⁰ Several companies are currently involved in

⁹⁶ Indonesia Petroleum held 6.5 percent, Itochu Oil, 6.5 percent, Huyundai Engineering and Construction, 5 percent, and the Crescent Group of Pakistan. 3.5 percent. Alexander's Gas and Oil Connections, November 25, 1997.

⁹⁷ Unocal took a 54.11 percent stake, Delta's stake remained at 15 percent, Inpex and Itochu took 7.22 percent stakes each, Turkmenistan's government 7 percent Huyundai Engineering of South Korea 5.54 percent and the Crescent Group of Pakistan 3. 89 percent. NewsBase, April 29, 1999.

⁹⁸ <http://www.jang.com.pk/thenews/mar2003-weekly/busrev-31-03-2003/p5.htm>.

⁹⁹ EIA Country Analysis Brief, Pakistan, June 1999.

¹⁰⁰ The total project of this pipeline is expected to cost about \$10 billion USD. In 2001 the UAE Offsets Group and the Qatar General Petroleum Corporation signed a natural gas sales agreement and the natural gas supplies are scheduled to start in late 2005. In its initial the pipeline will carry 3 bcf per day of Qatari natural gas to the UAE and Oman. According to the EIA report on Qatar, the proposed extension from Oman to Pakistan is highly doubtful due to the financial conditions of Pakistan and the possibility of imports from Iran. EIA Qatar Country Analysis Brief, November 2003. Available at: <http://www.eia.doe.gov/emeu/cabs/qatar.html>. Export Club Trade Mission <http://www.nofexportclub.org/events/mission.asp?missionID=123>.

discussions regarding the pipeline, which could have a capacity of 10 to 20 bcm per year.¹⁰¹

There are also ongoing discussions about building a pipeline from Iran's huge South Pars offshore gas field to Pakistan, which could carry 17 bcm per day. Shell, Statoil, and Broken Hill Proprietary (BHP) are all hoping to partner with Iran's NIOC in a consortium for this project. In particular, Shell hopes to win Phases 13 and 14 of the project for liquefied natural gas (LNG) production and gas-to-liquids development.¹⁰²

Pakistan's domestic gas market is also being transformed by the discovery of new gas fields within the country.¹⁰³ This further increases the need for access to the Indian market to insure the profitability of a Trans-Afghan pipeline. Indian natural gas demand was expected to rise from 17 bcm per year in 1995 to 23 bcm in 2000, 34 bcm in 2005 and 45 bcm per year in 2010.¹⁰⁴

The CentGas project was introduced at a time when there was a lot of private sector support in the energy sector, which was designed to create an environment of confidence-building between these two states in the hope that this would contribute to resolving the crisis in Kashmir. But relations between India and Pakistan deteriorated somewhat in the period during which the CentGas pipeline project was being actively considered.

Plans to revive the Trans-Afghan project are also predicated on the hope that the Indian market might be served by a pipeline from Pakistan. India is investing heavily in the infrastructure required to support increased use of natural gas, and its domestic natural gas supplies are not likely to keep pace with the demand, requiring that the country import increasing quantities of natural gas, either via pipeline or as LNG.

There are a number of contending projects being developed to serve the Indian market, most of which have less political risk than the Trans-Afghan pipeline, which requires the Indian government to purchase natural gas transiting through Pakistan. There are variations of development plans for South Pars in Iran that call for shipping gas to India via Pakistan, in which the Iranians would bear the contractual responsibility for

¹⁰¹ They include TotalFinaElf, ExxonMobil, Crescent Petroleum of the UAE, Occidental Petroleum, Brown and Root and Itochu Corporation of Japan.

¹⁰² EIA Iran Country Analysis Brief, November 2003. In May 2003 South Pars Company and a foreign consortium consisting of Toyo Engineering Corporation of Japan, Dailem from South Korea, Japan Gasoline Company and IDRO from Iran, signed an agreement on the construction of an onshore refinery related to phases 6, 7, and 8 of the South Pas project. <http://www.payvand.com/news/03/may/1097.html>.

¹⁰³ Austria's OMV made a 1998 discovery at Sawan, which is expected to produce 340 Mmcf/d by 2003. Lasmo (now Eni) reported a discovery in western Sindh which is expected to produce 20 Mmcf/d, and Hardy Oil of UK, reported a new discovery in 1999, in the Middle Indus region of Sindh, which tested at an initial 58 Mmcf/d. In addition, Premier Oil has begun exploration in the Dadhar block in Baluchistan, and offshore exploration concessions were granted to Lasma, Eni, Shell, OMV, and others.

¹⁰⁴ EIA India Country Analysis Brief. March 2003.

assuring India its gas supplies. Another version of the same plan would link Iran to India through an undersea pipeline. There is also discussion of shipping natural gas from Bangladesh into the Indian gas grid, and there are projects under consideration by both Unocal and Shell that would do that.

As already noted, there was real concern among the architects of the project as to whether the CentGas project would be profitable without the sale of gas to India, but the project died on the shoals of Afghanistan, rather than due to the Indian-Pakistani relationship.

The relationship of the CentGas project to political conditions in Afghanistan has been a question of enormous speculation for nearly a decade, with lots of unsubstantiated accusations having been made about Unocal being an agent of the U.S. government and claims that Unocal funneled vast sums of money to the Taliban forces. There is no reason to believe that such claims are true, although in the aftermath of September 11 there was a lot of speculation about Delta Oil and the role that they might have played in Afghanistan. "Fringe" papers published reports linking Delta Oil to the Saudi royal family and to Bin Ladin. Anyone who does a web-search on Delta Oil can find a dozen or more accounts that make such claims. But, even if proven, such allegations are not evidence that Unocal was aware of, or party to, clandestine actions taken by Delta Oil or its employees.

Of the two companies vying for position in the Trans-Afghan pipeline project, Bridas had much closer ties with Afghanistan. They signed an agreement with the Afghan (Rabbani) government in February 1996, only to find that government ousted from power in September 1996, when pro-Taliban forces took Kabul.

Unocal never signed a formal agreement with any Afghan authorities, but tried to develop close ties to all the competing Afghan groups. Unocal representatives had contact with members of the Taliban government, both in Afghanistan and in the U.S. A Taliban delegation traveled to the U.S. in February 1997 in search of diplomatic recognition. Later, this same delegation went to Argentina to visit Bridas' headquarters.¹⁰⁵ A second delegation came to the U.S. during November and December of that year, reportedly at Unocal's invitation, and traveled to Texas.¹⁰⁶

There have also been numerous allegations that Unocal pressed the U.S. government to recognize the Taliban government. (Obviously, the author was not privy to discussions that went on between representatives of Unocal and the Clinton

¹⁰⁵ For a detailed, and seemingly quite accurate, timeline of the events surrounding the plans for a Trans-Afghan pipeline, see http://www.worldpress.org/specials/pp/pipeline_timeline.htm. This was prepared by the World Press Organization, a project of the Stanley Foundation.

¹⁰⁶ Coll, Steve. *Ghost Wars*. NY: Penguin Press, 2004, pp. 364-366.

administration.)¹⁰⁷ Regardless of any putative Unocal lobbying, the Clinton administration was debating the possibility of defacto and dejure recognition of the Taliban forces independent of questions relating to the creation of a Trans-Afghan pipeline.

At least initially, Unocal tried to maintain dialogue with both the Taliban and key figures in the Northern Alliance. They deliberately established small training programs in several regions of the country in order to appear impartial in the dispute, and these programs are still detailed on the Unocal website.¹⁰⁸

Critical to Unocal's decision to withdraw from the project in 1998 was the unresolved nature of the conflict, and the fact that it was unlikely Afghanistan would soon have an internationally recognized government. Moreover, according to at least one Unocal insider, former U.S. Ambassador John Maresca, Unocal had become concerned by links between Taliban leaders and al-Qaeda forces based in the country.

The actual terms under which Unocal exited the Trans-Afghan pipeline project are still not public, nor were they speculated about in the press. But presumably there was some sort of financial accommodation made to the Turkmen, as there was no outcry from the Turkmen government when the project died. In any event, Unocal was in formal violation of the consortium agreement, which called for construction of the pipeline to begin in 1998, but none of the conditions for the transit of gas across Afghanistan could have realistically been established at that time.

While it is possible that Unocal could have “waited the Afghan crisis out,” in the political environment of the late 1990s there were clear costs of doing this. As the Taliban regime extended the control over the country, the position towards women had hardened, leading to powerful lobbying efforts by women's groups against Unocal.¹⁰⁹ At the same time, there appeared to be no international force prepared to intervene in Afghanistan.

In its public statements, Unocal cited the reasons for its withdrawal as partly linked to the situation in Afghanistan, as well as the need to rethink and rationalize its portfolio more generally. At the same time that it withdrew from CentGas, Unocal also abandoned a planned 1,600-km pipeline project that was designed to transport Turkmen, Uzbek, and Kazakh oil to Pakistani ports through Afghanistan, citing economic reasons, particularly the low price of oil, for its decision.

¹⁰⁷ In 1997 and 1998 I served as a member of a group of regional experts that did political risk analysis for Unocal on a quarterly basis. My responsibility was summarizing press accounts about political and economic developments in Central Asia.

¹⁰⁸ <http://www.unocal.com/uclnews/98news/centgas.htm>.

¹⁰⁹ For details on some of the anti-Unocal activities see Steven Levine "Unocal Quits Afghanistan Pipeline Project." New York Times December 5, 1998.

THE TRANSPORT OF TURKMEN GAS: EXISTING ALTERNATIVES

Unocal's withdrawal from the Trans-Afghan pipeline project worked to Russia's advantage. This was certainly an unintended and undesirable consequence from the U.S. point of view, and Washington began pressuring Ashgabat to commit Turkmen resources to a planned Trans-Caspian pipeline, a project Russia very strongly condemned, citing the unsettled legal status of the Caspian Sea and the potential environmental impact of undersea pipelines.

There must have been a sad sense of inevitability in Ashgabat when the Turkmen government turned back towards Moscow. Moscow had always taken a proprietary interest toward Turkmenistan's gas reserves and the leadership in the Kremlin never accepted the idea that the collapse of the Soviet Union meant the end of a privileged position for Moscow in this tiny — and in their minds, inconsequential — Caspian state.

Turkmenistan's gas reserves were critical to Russia's domination of the European gas market. Moscow wanted to retain control over the gas spigots of several Commonwealth of Independent States (CIS) states,¹¹⁰ including fractious Georgia and independent-minded Ukraine. Buying and then reselling Turkmen gas allowed Moscow to supply these states while keeping the lucrative markets of Europe largely to itself.¹¹¹

In the last decades of Soviet rule, the gas industry became deeply entrenched in Turkmenistan, viewing the development of its abundant assets as desirable to develop in the short-run because Turkmenistan's Dauletbad field had lower wellhead costs and was closer to the European markets than the east Siberian or Far Eastern fields.

In the first days of independence, the Russian government and Gazprom, its vertically-integrated gas conglomerate, believed that it would not be a difficult task to continue its domination of the Turkmen gas industry. Gazprom, which underwent a formal reorganization in 1992,¹¹² was made up of senior members of the Soviet gas industry. Those serving in the gas industry of Turkmenistan were both their colleagues and their

¹¹⁰ The Commonwealth of Independent States (CIS) was created in December 1991. It unites Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan, and Ukraine.

¹¹¹ Victor, David G. and Nadejda Makarova Victor. "Diversifying Russian Gas Export to Europe." Paper Draft for Geopolitics and the Emergence of a Global Natural Gas Market, 2004. <http://pesd.stanford.edu/gasdrafts.html>.

¹¹² Gazprom was reorganized as independent entity under a presidential decree on November 5, 1992. It became a Russian Share-Issuing Company "RAO Gazprom." A condition of privatization was that the government retains a 40 percent share in the company. Gazprom managers received 15 percent of share and 28 percent went to people living in Russia's gas-producing regions. Currently the state owns 38.37 percent of the shares in the company. Pederson, Jay P. International Directory of Company Histories. Vol. 42. NY: St. James Press, 2002, p. 262.

subordinates, and Moscow hoped that such relationships would serve it well, and that they would be institutionalized through a series of formal, as well as informal, agreements.

The principal route for the export of Turkmen gas is the Central-Asia-Center (CAC) pipeline system, which was built in stages from 1960 to 1974.¹¹³ The combined capacity of the system is currently estimated at 90 bcm per year. In 2001, 32 bcm of Turkmen gas was moved along this route, 80 percent of which flowed through the eastern branch.¹¹⁴

In 1992 Gazprom asserted formal ownership of the old Soviet-era gas transport network located in Russia, limiting Turkmen's access to the markets of Europe.¹¹⁵ By 1993, President Niyazov was becoming highly suspicious of the motivation of those in Turkmenistan's gas industry. One of the first to go was former Deputy Prime Minister and Minister of Oil and Gas Nazar Soiunov who in the early days of independence traveled abroad seeking potential investors in Turkmenistan's gas industry.¹¹⁶ Soiunov now lives in exile in Moscow, where he reportedly enjoys close ties to Itera.

Until 1996, Gazprom purchased its gas from Turkmenistan's Ministry of Oil and Gas, using a series of short-term intergovernmental agreements as the base, which left nobody satisfied. Gazprom, which was slow to receive payment from its customers, was slow to pay the Turkmen as well, and Ashgabat was displeased with the purchase price on offer. Russia's government lobbied hard for the signing of a long-term agreement, and for the creation of a joint venture that would allow it to hold the rights to the transport of Turkmen gas. Russia's President Boris Yeltsin played a direct role in the negotiations, and in the process negotiated a series of other agreements designed to sweeten the deal, including the acceptance of a dual citizenship treaty. At one point Yeltsin formally posed holding a Turkmen passport.

¹¹³ CAC system moves gas 1,000 miles from supply regions in Central Asia and has a maximum of 90 bcm per year of gas. The construction of the CAC pipelines began after a discovery of the Dzharkak field, and the first section was completed in 1960. The second section reached Tashkent in 1968 and was extended to Frunze (Bishkek) in 1970 and to Alma-Ata (Almaty) in 1971. By the mid 1970s the 13,750-km CAC transmission system had been completed, including four parallel lines from the junction point of Beyneu in northwest Kazakhstan, two lines going northwest to Moscow, and two others proceeding westward across the Volga river to the North Caucasus-Moscow transmission system. Dienes and Shabad. The Soviet Energy System. Washington D.C.: Wiley and Sons, 1979, pp. 79-80.

¹¹⁴ Bukhara-Ural 2,300-km pipeline system also originates in Central Asia, reaching from northern Turkmenistan to the Urals. It was laid in 1963-65, following a discovery of a major gas field in Gazli, Uzbekistan. Bukhara-Urals also moves gas to Bashkiria and Tatarstan, west of Orenburg. EIA Country Analysis Brief on Turkmenistan Energy Sector, May 2002.

¹¹⁵ Sagers, Matthew. "The Russian Natural Gas Industry in the Mid-1990s." Post-Soviet Geography, November 1995, 36-9, p. 555.

¹¹⁶ Soiunov served as Minister of Oil and Gas and Deputy Prime Minister from 1991-1994.

Since January 1, 1996 Turkmenistan's gas exports have been governed by direct arrangement between trading entities. At that time Turkmenistan entered into a joint venture, Turkmenrosgaz, in which Gazprom controlled a 45 percent stake, Itera held 4 percent, and the newly organized Turkmenneftegaz held the remaining 51 percent. In 1996, Turkmenneftegaz (the production and trading company) and Turkmenneftegazstroy (a construction company) were created to succeed the Ministry of Oil and Gas.¹¹⁷

Under the 1996 agreement Itera was designated the marketing agent for Turkmen gas, and paid Turkmenistan \$1.26 USD per mmbtu (\$42 USD per tcm) at the border, with 47 percent due in cash and the rest offset by barter trade. However, the end result of this agreement was worse than the state of affairs that preceded it. Turkmenistan stopped all gas shipments to Russia at the end of March 1997 and unilaterally abrogated their association with Turkmenrosgaz in June 1997.¹¹⁸

In 1999 Turkmenistan resumed its natural gas exports to Ukraine, in a trade managed by Itera, in which Russia was paid for transit, and the gas trade itself was used to cover unpaid fees.¹¹⁹ By this time Gazprom was eager to reenter the Turkmen market, as it needed 20 bcm of Turkmen gas in 2000 to maximize the profitability of its European gas contracts.¹²⁰

After Vladimir Putin took over the presidency, Gazprom's interest in Turkmenistan increased. Partly this was a result of increased scrutiny of Gazprom by the Kremlin, which sought to end the long-rumored corrupt practices of the Russian gas giant. A new management was chosen for Gazprom, headed by Alexei Miller, and the company was charged with reasserting control of "dissipated" assets, some of which had come under the control of Itera.¹²¹

As part of this effort Gazprom sought to bring Turkmenistan's gas back into its fold, as well as to extend its reach into other Central Asian countries. This strategy, previously tried by the Yeltsin team, was strongly endorsed by the new Russian leader who made the reassertion of Russian influence in its former territories a priority of his administration. But unlike his predecessor, who was more prone to "dirty tricks" or the threat of force, Putin tried flattery and financial enticements to get his way.

¹¹⁷ For details on the reorganization of Turkmenistan's gas industry in this period see Robert E. Ebel, Energy Choices in the Near Abroad, CSIS, April 1997.

¹¹⁸ Turkmenistan Recent Developments. IMF Staff Country Report No. 99/140, December 10, 1999.

¹¹⁹ Turkmenistan was reportedly paid \$36 USD per tcm, with 40 percent paid in cash and the rest in barter. This was an increase over Gazprom's reportedly original offer of \$30-\$32 USD per tcm, with 30 percent to be paid in cash. The Turkmen claim that they received 50 percent in cash. WPS-Business Oil, April 12, 1999.

¹²⁰ Kortess, Oil and Gas Spectator: Macro, November 4, 2000.

¹²¹ Alexander's Gas and Oil Connections, July 31, 2003.

After several years of negotiation, Niyazov and Miller signed a new long-term contract in April 2003. This agreement called for the Turkmen side to supply gas to Gazprom until 2028, a total of 2 tcm over 25 years. It set up a 50 percent cash, 50 percent barter payment structure, with gas priced at \$1.32 USD per mmbtu (\$44 USD per tcm) in the first three years, with this to make way for a new formula in 2007, when Turkmenistan is to be compensated at world prices according to terms that are similar to those offered by Western companies.¹²²

In recent years Gazprom has also set about systematically increasing its position in the other Central Asian countries. In 2002 and 2003 Gazprom signed agreements with the national gas companies in Kyrgyzstan, Uzbekistan, and Kazakhstan for the joint development projects in each of these countries.¹²³ Taken as a whole these agreements represent a giant step toward Russia's development of a unified gas system across Central Asia. In the case of both Kyrgyzstan and Kazakhstan, Gazprom has taken equity interests in either existing or newly organized local gas companies,¹²⁴ and is seeking to get Uzbekistan to agree to a similar arrangement. The agreement with Kazakhstan will allow some Kazakh gas to reach European markets,¹²⁵ and the arrangement with Kyrgyzstan is designed to protect the Kyrgyz from alleged price gauging by the Uzbeks.¹²⁶ But presumably Gazprom will favor the interests of the Uzbeks over the Kyrgyz if the former agree to an equity arrangement with their national gas company.

There is serious concern about how much gas can actually be moved through the CAC pipeline system in its current state. Its capacity was estimated at 90 bcm in 2002, which is slightly higher than Turkmenistan's export commitments for 2003. The new

¹²² Blagov, Sergei. "Russia Gains Big in Central Asian Gas Game." Asia Times Online. April 12, 2003.

¹²³ In January 2003 Gazprom signed contracts with KazTransGaz and UzTransGaz on transiting 38 bcm of Turkmen and Uzbek gas in 2003 at a price of \$40 USD per tcm. This contract would allow Gazprom to fulfill its obligations to Ukraine as Gazprom became the operator of Turkmen gas to Ukraine 2003. Maya Nobatova. "Gazprom Lays Down the Rules for Gas Business in Central Asia." Russian Petroleum Investor, March 2003, p. 80. In August 2003 Karimov agreed to appoint Gazprom operator of its section of the CAC pipeline. Gazprom and Uzbekneftegaz will also explore and develop joint gas reserves in the Uztyurt region of Uzbekistan. Kyrgyzstan and Gazprom signed a cooperation agreement on May 15, 2003 to promote joint efforts to explore and develop oil and gas deposits. Under this agreement Gazprom will be buying gas from Uzbekistan and Turkmenistan and then selling to Kyrgyzstan. Interfax reports, May and August 2003.

¹²⁴ For example, in June 2002 Gazprom and KazMunaiGaz established a joint venture "ZAO KazRosGaz" with Gazprom initially owning 38 percent of the shares. In July 2003 Gazprom's stake in KazRosGaz went up to 50 percent. KazMunaiGaz holds the other 50 percent. AFX News, July 21, 2003. In February 2004 Gazprom announced that it plans to receive trustee management of 85.16 percent of shares in KyrgyzNefteGaz. Interfax, February 19, 2004.

¹²⁵ Under the agreement about 3 bcm of Kazakh gas will be annually sold in European markets through the KazRosGaz joint venture with Gazprom. Alexander's Oil and Gas Connections, June 14, 2002.

¹²⁶ Under this agreement Gazprom will be buying gas from Uzbekistan and Turkmenistan and then selling it to Kyrgyzstan. So payments for gas will be made to Gazprom not the Uzbek government, which in the past insisted on charging Kyrgyzstan world prices for gas instead of favorable rates it had initially granted its neighbors. RFE/RL June 4, 2003. Interfax, May 16, 2003.

agreement between Russia and Turkmenistan calls for capacity to be increased to 60 bcm by 2007, 70 bcm per annum by 2009, and eventually 80 bcm. There are also plans for new pipelines to be laid that will give Turkmenistan more direct access to the Kazakh pipelines system.¹²⁷ But Gazprom currently lacks the money for any of these projects, and there is no immediate likelihood that the company will undertake the kind of corporate reorganization necessary to raise international investment capital. Moreover, should the reorganization take place, and the capital be raised, the planned Central Asian projects will have to compete with a number of other investments that Gazprom is contemplating. Lacking alternatives, Turkmenistan will remain wedded to the Russian pipeline system, with or without its modernization.

CONCLUSION

Twelve years after independence Turkmenistan has made little progress in maximizing the economic impact of its vast gas reserves. Having spent nearly ten years trying to reduce dependence on marketing gas through Russia, Niyazov signed a long-term agreement with Russia's Gazprom, which ensures Turkmen deliveries to the Russian pipeline system for the next three decades.

At the same time, Turkmenistan holds out real hope that other alternatives will become available. Since the fall of the Taliban government in 2001, the governments of Turkmenistan, Pakistan, and Afghanistan have signed accords that support the construction of a gas pipeline across their three countries, and the Asian Development Bank has funded a major feasibility study for the project, which should be available to the public in July 2004 (six months later than originally scheduled). This study is intended to stimulate commercial interest in the project. Currently, although there has been some expression of interest by Japanese firms, there is no commercial activity being generated in support of this project. In part this is because questions of long-term stability in Afghanistan have not been resolved, and also because of the increased competition in the south Asian gas market.

The Turkmen rejected the idea of shipping their gas through an undersea TransCaspian pipeline, an idea that the U.S. began to press for in 1998, when Washington

¹²⁷ Gazprom and Turkmenistan are planning to build a new gas pipeline by 2007 that would run mostly on land parallel to the CAS system. It will have an annual capacity of 30 bcm of gas, cost about \$1 billion USD, and will be 1,745 km long. Turkmenistan will pay for construction of the pipeline segment on its territory. The buyers of gas, Naftogaz Ukrainy and Gazprom, will bear the construction expenses further on. The pipeline will start from Deryalyk compressor station, go through the Bekdash compressor station in northwest Turkmenistan, and finally reach the Alexandrov Gai compressor station in Russia across Kazakhstan. A total of 605 km will go through Turkmenistan, while 1,140 km will run through Kazakhstan. Once build, this pipeline will be used for gas transportation under the 25-year agreement signed by Gazprom and Turkmenistan in 2003. Interfax February 26 and May 29, 2003.

was seeking sources of additional oil and gas to help facilitate the construction of Baku-Tbilisi-Ceyhan (BTC) oil pipeline¹²⁸ and a parallel gas pipeline, known as Baku-Tbilisi-Erzurum, along the route.¹²⁹

The discovery of substantial amounts of natural gas in the Azerbaijani Shah Deniz gas fields meant that construction on the Baku-Tbilisi-Erzurum and BTC pipelines was not contingent on either Turkmen gas or Kazakh oil, which has only been committed to the project in principle, and in 2003 construction of the pipelines was well underway, and financing for the project was largely secured for the oil pipeline.¹³⁰

The decision to go ahead with the Baku-Tbilisi-Erzurum pipeline—which now seems irreversible—will have some impact on the development of Iran's gas industry, at least as it relates to Turkmenistan, as Turkish demand for Iranian supply will now partly be through Baku-Tbilisi-Erzurum and Russia hopes to remain a supplier of Turkey as well. Even today Turkey is not buying all the Iranian gas available to it, removing any economic incentive for the development of a major east-west gas transit project across Iran.

As the development of Iran's gas reserves moves forward, the Iranians will certainly seek greater integration of their assets with Turkmenistan, and will continue to advocate projects that will maximize profitability of Iranian reserves. However, the Iranian export route is unlikely to serve to maximize Turkmenistan's export capabilities. Similarly, over the long-run Turkmen gas may find ready markets in East Asia, but development of these routes is not currently a priority for anyone.¹³¹

It is hard to know the most important lessons to take away from Turkmenistan's experiences in trying to build gas pipelines in the past twelve years, or how much we can generalize from the case of Turkmenistan. The environment for doing business in Turkmenistan was idiosyncratic at best. The government of Turkmenistan under President Saparmurad Niyazov is unquestionably an unreliable partner, offering little protection to ensure the sanctity of contracts. The political future of the country is very uncertain, and the successor regime to that of Niyazov may well try to overturn the decisions of its predecessor.

Yet, for someone very familiar with the Turkmen scene, it is hard to conclude that the erratic and repressive nature of the regime is what has left Turkmenistan, alone among the Caspian states, without a major Western oil company active in its country. It would be nice to be able to say that Turkmenistan's totalitarian regime was the cause of the faltering

¹²⁸ <http://www.caspiandevlopmentandexport.com/ASP/BTC.asp>.

¹²⁹ The two pipelines are being built in one corridor, using the same construction resources and the construction of the Baku-Tbilisi-Erzurum gas pipeline can only begin after the BTC oil pipeline is completed. Alexander's Gas and Oil Connections, March 25, 2004.

¹³⁰ EIA Azerbaijan Country Analysis Brief, June 2003.

¹³¹ See Appendix I.

of the hydrocarbon industry in the country, which suffers from serious mismanagement. However, this alone has not kept foreigners out.

On top of bad leadership, the Turkmen people are cursed with a very poor geographical location, particularly with regard to being able to market their gas reserves. Turkmenistan's two easiest routes to market are through large gas producing states, Russia and Iran, and both these countries have a strong interest in harnessing Turkmenistan's reserves for the development of their own assets.

Over the past twelve years Russia has held the stronger hand of the two, and may well have effectively tied up Turkmen reserves for the foreseeable future, especially given Moscow's ability to provide security guarantees to the internally-divided Niyazov regime. But if Moscow's interest should wane, Teheran would be eager to step in, and questions of better integration of the gas assets of Turkmenistan and Iran are certain to come up again when Western oil companies become more active in Iran.

Turkmenistan's only other "easy" exit is through Afghanistan, and anyone who has paid the slightest attention to developments in the south Asian region over the past three decades realize that "easy" and Afghanistan are rarely uttered in the same sentence. It is not simply a question of providing security for a pipeline across the country, but of finding customers for the gas. The key to the financial success of the project increasingly depends on being able to reach India's expanding gas market, especially since Pakistan has increased its domestic production of gas in recent years.¹³² It is all well and good to talk about "peace" pipelines, but for a Trans-Afghan pipeline to be economically viable, there has to be some realistic prospect of sustained peace in the region, in Afghanistan, and between India and Pakistan as well.

¹³² EIA Pakistan Country Analysis Brief, May 2003 and EIA India Country Analysis Brief, March 2003.

APPENDICES

APPENDIX A. TURKMEN EXPORTS OF NATURAL GAS.

Year	Gas exports (bcm)
1989	74.3
1991	74.9
1992	46.9
1993	55.7
1994	24.7
1995	22.0
1996	24.0
1997	40.0
1998*	2.0
1999	10.0
2000	35.7
2001	38.6
2002	39.3
2003	43.4
2004**	17.6
2005***	70.0
2010***	100.0

*note the significant drop due to suspension of gas exports that year.

**as of May 2004

***as forecasted in the Strategy of Socioeconomic Development of Turkmenistan for the Period up to 2010.

Sources: Robert E. Ebel, *Energy Choices in the Near Abroad*, CSIS, April 1997, p. 128. www.iran.ru; EIU *Turkmenistan Country Profiles*.

APPENDIX B. KEY ECONOMIC INDICATORS FOR TURKMENISTAN.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003 (projection)
GDP* (%)	-5.3	-10	-17.3	-7.2	-6.7	-11.3	5	16	20	12	5.1	5.3
FDI, net (\$mil USD)	na*	79	103	233	129	108	110	125	126	170	100	150
Gas production (bcm)	56.1	60.9	33.3	30.1	32.8	17.3	13.3	22.9	47.3	51.3	49.9	Jan-May 26.9
Gas exports (bcm)	46.9	51	24.7	22.8	24.3	6.5	1.8	10.5	31.2	37.2	39.3	na

*Percentage change in real terms.

Sources: EBRD *Transition Reports for 1994 and 2003*. *World Energy*, June 2003. EIU *Country Profile 2002 Turkmenistan*. IMF *Staff Country Report no. 99/140*, December 1999.

APPENDIX C. TURKMENISTAN TRADE BALANCE

Exports of goods (millions US\$)	1997	1998	1999	2000	2001
Natural gas (% of total)	274 35%	72 12%	392 33%	1,250 50%	1,490 57%
Oil and refined products % of total	284 37%	264 43%	365 31%	750 30%	680 26%
Cotton fibre % of total	87 11%	135 22%	214 18%	300 12%	80 3%
Total including all other goods	774	614	1,187	2,506	2,620
Imports of goods (millions of US\$)	1994	1995	1996	1997	1998
Machinery & equipment % of total	632 37%	427 26%	574 38%	421 34%	444 45%
Building & other materials % of total	270 16%	297 18%	265 17%	291 24%	282 29%
Consumer goods % of total	594 35%	537 33%	534 35%	391 32%	170 17%
Food products % of total	247 15%	358 22%	341 22%	289 24%	91 90%
Chemical products % of total	67 4%	77 5%	56 4%	87 7%	58 6%
Total including all others	1,691	1,644	1,532	1,228	978

Exports to: (millions of US\$)	1998	1999	2000	2001	2002
Iran	144	163	242	241	249
Ukraine	1	322	165	182	198
Turkey	113	128	186	65	71
Russia	29	44	1,029	35	23
Germany	23	119	405	5	4
Total including all others	593	1,187	2,505	1,132	1,211
Imports from: (millions of US\$)	1998	1999	2000	2001	2002
Ukraine	184	182	214	236	256
UAE	22	124	147	158	168
Russia	132	167	255	153	152
Turkey	149	260	253	116	126
Japan	8	64	144	36	6
Total including all others	1,007	1,478	1,788	1,556	1,460

Source: EIU Country Profile Turkmenistan 2003, p. 50-51.

APPENDIX D. FOREIGN FIRMS INVOLVED IN TURKMEN GAS AND OIL SECTOR.

Company	Remarks
Technip (France)	In 2001, Technip was awarded a contract to build a lubricants blending plant, which is scheduled for completion in 2004. This unit has a capacity of 36,150 bbl per day.
Bridas Sapic (Argentina)	Turkmenistan's largest foreign investor and the first Western company to become involved in the gas and oil sector; main project is the Yashlar field, which reportedly contains 770 bcm in gas reserves and 165 million barrels of oil.
Burren Energy (United Kingdom)	Operates under 25-year PSA contract at the onshore Nebit-Dag oilfield in western Turkmenistan. Since 1997, it invested \$200 million to development the Burun oil field.
Dragon Oil PLC (Ireland or UAE) 70% owned by the UAE's Emirates National Oil	Signed a 25-year PSA for the Cheleken contract area in the Turkmen Caspian Sea. Dragon Oil has four wells under production in the Caspian Sea, following a new well coming onstream at Jeytun field that produces about 3,950 barrels per day of oil. Invested about \$315 million to development two offshore oil fields in the Caspian Sea since 1993.
Exxon Mobil (U.S.)	Left reportedly after disappointing well tests at its Garashsyzyk-2 project.
Larmag Energy Associates (the Netherlands)	Major investor in Turkmenistan. The Turkmen government has twice suspended Lamarg's export licenses as a means of renegotiating its contract. It has also failed to pay Lamarg for oil sent to the Turkmenbashi refinery.
Maersk (Denmark)	Maersk oil and Turkmenistan signed a PSA in 2002 to develop blocks 11 and 12 in the Caspian Sea and it plans to invest about \$10 million in 2003.
Petronas Carigali Overseas (Malaysia)	Petronas is developing part of the Turkmen sector of the Caspian Sea under a PSA signed in 1996, and in late 2002 it extended its exploration and production license for three years until November 2005. The company has invested more than \$ 190 million in the exploration and development of three offshore oil fields in the Caspian sea since 1996.
Shell	In 2002, reduced its presence in Turkmenistan to minimum. The company had hoped to become involved in the upstream development side of the Trans-Caspian pipeline (TCP) project.

Sources: Turkmenistan: 2003 Investment Climate Statement. U.S. Embassy Ashgabat, July 22, 2003. EIA Caspian Sea Region Country Analysis Brief, August 2003.

APPENDIX E. TURKMENISTAN’S MAJOR NATURAL GAS DEPOSITS¹³³

Name	Development/Reserves
Byashkyzyl gas deposit	11 bcm Development is under way with the total investment of \$62 million. This project is to be serviced through the construction of a 90-km Byashkyzyl-Uchaji pipeline, under the auspices of Turkmenneftgazstroi (the state oil and gas construction company), to link the field up with the main Central Asian gas pipeline system.
Darganata field in northeastern Turkmenistan	Turkmengaz started exploration in May 2001.
Dauletabad-Donmez/Sovetabad field, located near Seraks on the border with Iran.	700 bcm. The field was discovered in 1974 with its reserves initially put at 1,626 bcm. Central Asia-Center I, II and IV pipeline originated at this field. About 417 bcm has been extracted since its development. Residual reserves are 1,209 bcm. It is now estimated that this deposit could produce 15 bcm of gas per year for a minimum of 30 years. About 80% of the recoverable reserves are still untapped. Unocal’s planned Trans-Afghan pipeline was intended to send gas from this highly attractive deposit to the south Asian markets.
Gagarinskoye deposit in Zaunguz Karakum	Turkmengaz has recently started commercial exploration.
Karakum and Kyzylkum fields	Exploratory work is being planned by the Turkmen government.

¹³³ Turkmenistan has 127 prospected natural gas deposits, 39 of which are under development. Alexander’s Oil and Gas Connections, vol. 6, issue 15, August 14, 2001. Turkmenistan Oil and Gas Industry 2003 Government Plans.

Krichen or Korpedzhe gas deposit	It is at the start of the Korpedzhe to Kurtkui gas pipeline. Initial reserves were at 141.85 bcm. About 22 bcm has been extracted since its development. Residual reserves area about 121 bcm. The construction of the pipeline was completed in December 1997 with a cost of \$190 million. Initially the pipeline was to carry 2-4 bcm per year of gas from Turkmenistan to the Neka power stations in Iran.
Lebansky, Maryinsky, and Deashoguzsky regions of the country	17 new natural gas deposits were discovered in the last ten years in this area.
Mayskoye field in the Murgab gas region in the south	It was discovered in 1964. In 1970 it began supplying Ashgabat via a 53-mm pipeline.
Samantepe field on the right bank of the Amu Dar'ya in eastern Turkmenistan.	Initial reserves were 102 bcm. About 16 bcm has been extracted since its development. Residual reserves are 84.95 bcm. Prior to 1991 this field supplied up to 4 bcm of gas to the Murabek gas processing field in Uzbekistan. Turkmenistan plants to construct a gas processing plans and a gas pipeline at the field with an annual design capacity of 3 bcm. In 1998 a construction contract was signed with Lurgi (Germany).
Shatlyk gas field in the Amu-Daria basin	1 tcm It was discovered in 1963 and at the time had 894 bcm of recoverable gas reserves. The field began producing in 1973 when the first of two 1420-mm pipelines were laid from Khiva, connecting with the Central Russia transmission system. By 1985 the field produced a cumulative total of over 340 bcm of gas. It remains an important producer and a key pipeline junction.

Yashlar deposit in the Margab river basin	750 bcm Bridas acquired 75% interest in the field in 1992 and invested around \$120 million, including a \$15 million bonus to the Turkmen government, for its participating in the field.
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Sources: EIA Turkmenistan Reports 2001, 2002. EIU Country Report, September 1, 2001. RFE/RL, June 8, 2001. IEA Caspian Oil and Gas, 1998. Oil and Gas Journal.

APPENDIX F. GAS AND OIL FIELDS IN TURKMENISTAN

Caspian Sea:

Garageldeniz (Gubkin)	Magtymguly (Livanov)	Deyarbekir (Barinov)
Jygalibeg (Zdanov)	E. Gubkin	Jeytun (Lam)
	Gyuval Bagsy (Pricheleken Kupol)	

West Turkmenistan:

Burun	E. Cheleken	Komsomo/Oval-Toval
Garatepe	Nebitdag	Gyzylkum
Korpedzhe	Ekizak	Bugdayli
N. Ekarem/Chukurkui	S. Bugdayli	S. Gamyshlyja
Miaser	Kanguli	Keymir
Adiivah	Akpatlaukh	Chikishlyar
Kuruk/Sharlyk	Sharlyk	Koyun
Kyrk-Kui	Kuruk-Sakarchaga	Sakarchaga
Chashkyn	Chimmerli	Toporjulba
Shikh	Atabay	Topjulba
E. Chaljulba	Takyr	Darvaza
Akmuli	Prishikh	Kahzarli
Balkui	N. Naip	N. Balkui/Ashurbay
	Gagarin	Kerven

East Turkmenistan:

Seyrab	Sharafli	Tarkhan
Minara	E. Tutly	Chamchakly
Tedjen	Eloten	W. Shatlyk
Shordepe	E. Tedjen	Mollaker
Koshka	Chaacha	Morgunovka
Baarap	Karachop	N. Gugurtli
Kelyaka	Farab/Yeldjik	Sakar
Akkumulyam	Sandukly/Pirguduk	S. Tangiguduk

Uzbekistani border:

Uzunshor	W. Akkum	Tenermen/W. Tegermen
Kokdumalak	Samantepe	Metegan

Source: "Turkmenistan Lists Ambitious Plans for Gas, Oil Development." *Oil and Gas Journal*. October 14, 2002.

APPENDIX G. LAWS AND REGULATIONS IN TURKMENISTAN

- Law for privatization of state owned enterprises
- Bankruptcy law
- Civil Code
- Law on ownership
- Law on distribution of land for private ownership
- Law on securities and stock exchange
- Law on economic zones for free entrepreneurship
- Profit tax law
- Patent law
- Copyright law
- Law on the protection of scientific research
- Law on foreign investment in Turkmenistan*
- Law on investment activity in Turkmenistan*
- On introduction of amendments and additions to the law of Turkmenistan “On Investment Activity in Turkmenistan”*
- Resolution of the President of Turkmenistan #2 1603 on “The Guarantees of Protection of Foreign Investment and Capital”*
- Law on Foreign Economic Activities in Turkmenistan*
- Law on Introduction of Changes and Additions to the Law of Turkmenistan “On Foreign Economic Activity in Turkmenistan”*
- Law on value-added tax*
- Petroleum law of Turkmenistan*
- Law on the subsurface
- Turkmenistan rules for development of the hydrocarbon fields*
- National plan of Turkmenistan on the prevention and disposal of oil spills
- Model PSA for petroleum exploration and production in Turkmenistan*
- Model joint-venture agreement for exploration and production in Turkmenistan*

*the full text of these documents is available upon request.

Sources: EBRD Transition Report 2002. Turkmenistan: 2003 Investment Climate Statement, July 22, 2003.
From the U.S. Embassy in Ashgabat.

APPENDIX H. BAKU-TBILISI-CEYHAN PIPELINE COMPANY

Company	Share (%)
BP	30.1
Socar	25
Unocal	8.9
Statoil	8.71
Tpao	6.53
Total	5
Eni/Agip	5
Itochu	3.4
ConocoPhillips	2.5
Inpex	2.5
Amerada Hess	2.36

Source: Neff, Andrew. "Kashagan Two-Year Dealy Could Spell Trouble for BTC Profitability." WMRC. Auguts 20, 2003.

APPENDIX I. POTENTIAL MARKET OPPORTUNITIES FOR TURKMEN GAS EXPORTS

- Northwest, via Russia using the Central Asia Center gas pipeline
- West, via Georgia to Turkey and on to Europe
- Southeast via Afghanistan or Iran to Pakistan
- To Azerbaijan via the Caspian Sea
- South, via Iran to Turkey
- East to China