

COUNTRY ANALYSIS BRIEFS

Afghanistan

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Background

Afghanistan now has a democratically elected government. After winning an election, President Hamid Karzai, who had previously served on an interim basis, was officially inaugurated on October 9, 2004. The members of the National Assembly were elected in September 2005 and took office in December 2005. In 2001, a U.S.-led coalition had defeated the previous Taliban government, which had provided sanctuary in Afghanistan for the terrorist group al-Qaeda. After more than two decades of war and chaos, and three years of drought in the late 1990s, Afghanistan's primarily agricultural economy was in poor condition at the end of 2001, at the time the Taliban was removed from power. Since then, there has been marked improvement. For the Afghan fiscal year, which ran from March 21, 2004 to March 20, 2005, the GDP growth was 8 percent.

Foreign aid has been helpful to Afghanistan, and pledges of assistance now total almost \$15 billion. In March 2004, President Karzai urged foreign donors at a conference in Berlin to renew their commitments to Afghanistan, while presenting the donors with a \$28 billion, 7-year economic development program. Karzai also urged the 50 countries attending the Berlin conference to help him prevent Afghanistan from becoming a "haven for drugs and terrorists." In December 2003, the U.S. government reported that opium was growing in 28 of Afghanistan's 32 provinces, with poppy cultivation rising from 30,700 hectares to 61,000 hectares in one year. The International Monetary Fund (IMF) estimates that 40 to 60 percent of Afghanistan's gross domestic product (GDP) derives from trade in opium.

In achieving the recent progress, Afghanistan has tried to overcome various problems. Until the duly elected National Assembly took office December 2005, the government was still transitional and it had limited authority in much of the country. The new government has to deal with continuing problems of lawlessness and the persistence of rival regional power centers. The national army is still relatively weak, but it is improving. The country's infrastructure also remains in poor condition. Foreign aid has helped repair some roads, but much more work is needed. Many of the electricity and telephone lines are still inoperable. On December 28, 2003, the Salang Tunnel linking northern and southern Afghanistan was reopened, while the main highway link between Kabul and Kandahar (alternative spelling, "Qandahar") was restored on December 16, 2003, cutting travel time between the two cities from two days to just five hours. On December 23, 2003, the World Bank approved a \$95 million plan for rural reconstruction activities as part of Afghanistan's National Solidarity Program. The World Bank has also provided a total of \$153 million under the Emergency Transport Rehabilitation Project.

It is estimated that Afghans living outside the country had invested \$3 billion in Afghanistan (out of an economy with GDP of around \$6-\$7 billion). The government has been pushing financial sector and customs reforms, along with a plan to promote private investment in the energy sector.

In September 2002, Afghanistan replaced its currency. "Old Afghani" notes were exchanged in for "New Afghani" notes, at a ratio of 100-to-1. This move was intended to give credibility to a currency which was so devalued that it had become nearly worthless. Use of U.S. dollars or neighboring countries' currencies is still common for many transactions in Afghanistan.

Energy Overview

Limited oil and natural gas exploration has occurred in Afghanistan.

Between the 1960s and mid-1980s, the Soviets had identified more than 15 oil and gas fields in northern Afghanistan. Only three gas fields -- Khwaja Gogerdak, Djarquduk, and Yatimtaq -- were developed in the area surrounding Sheberghan, which is located about 120 kilometers west of Mazar-i-Sharif. Afghan natural gas production reached 275 million cubic feet per day (Mmcf/d) in the mid-1970s. The Djarquduk field was brought online during that period and boosted Afghan natural gas output to a peak of 385 Mmcf/d by 1978. About 100 mmcf/d of this amount was used locally in gas distribution systems in Sheberghan and Mazar-i-Sharif as well as at a 100,000 mt/y urea plant located near Mazar-i-Sharif. One oil field, Angot, was developed in the late 1960s, but aside from production tests, oil production was intermittent, with daily outputs averaging 500 b/d

or less.

Northern Afghanistan has proved, probable and possible natural gas reserves of about 5 Tcf. This area, which is a southward extension of the highly prolific, natural gas-prone Amu Darya Basin, has the potential to hold a sizable undiscovered gas resource base, especially in sedimentary layers deeper than what were developed during the Soviet era. Afghanistan's crude oil potential is more modest, with perhaps up to 100 million barrels of medium-gravity recoverable from Angot and other fields that are undeveloped.

Outside of the North Afghan Platform, very limited oil and gas exploration has occurred. Geological, aeromagnetic, and gravimetric studies were conducted in the 1970s over parts of the Katawaz Fault Block (eastern Afghanistan – along the Pak border) and in the Helmand and Farah provinces. The hydrocarbon potential in these areas is thought to be very limited as compared to that in the north.

At its peak in the late 1970s, Afghanistan supplied 70 to 90 percent of its natural gas output to the Soviet Union's natural gas grid via a link through Uzbekistan. In 1992, Afghan President Najibullah indicated that a new natural gas sales agreement with Russia was in progress. However, several former Soviet republics raised price and distribution issues and negotiations stalled. In the early 1990s, Afghanistan also discussed possible natural gas supply arrangements with Hungary, Czechoslovakia, and several Western European countries, but these talks never progressed further. Afghan natural gas fields include Djarquduk, Khowaja Gogerdak, and Yatimtaq, all of which are located within 20 miles of the northern town of Sheberghan in Jowzjan province. In 1999, work resumed on the repair of a distribution pipeline to Mazar-i-Sharif. Spur pipelines to a small power plant and fertilizer plant also were repaired and completed. Mazar-i-Sharif is now receiving natural gas from the pipeline. The possibility of exporting a small quantity of natural gas through the existing pipeline into Uzbekistan also is reportedly being considered.

Soviet estimates from the late 1970s placed Afghanistan's proven and probable oil and condensate reserves at 95 million barrels. Most Soviet assistance efforts after the mid-1970s were aimed at increasing natural gas production. Sporadic gas exploration continued through the mid-1980s. The last Soviet technical advisors left Afghanistan in 1988. After a brief hiatus, oil production at the Angot field was restarted in the early 1990s by local militias. Output levels, however, are thought to have been less than 300 barrels per day (bbl/d). Near Sar-i-Pol, the Soviets partially constructed a 10,000-bbl/d topping plant, which although undamaged by war, is thought by Western experts to be unsalvageable.

Petroleum products such as diesel, gasoline, and jet fuel are imported, mainly from Pakistan and Uzbekistan, with limited volumes from Turkmenistan and Iran serving regional markets. Turkmenistan also has a petroleum product storage and distribution facility at Tagtabazar (Kushka – on the Turkmen side) near the Afghan border, which supplies northwestern Afghanistan.

Besides oil and natural gas, Afghanistan also is estimated to have 73 million tons of coal reserves, most of which is located in the region between Herat and Badashkan in the northern part of the country. Although Afghanistan produced over 100,000 short tons of coal annually as late as the early 1990s, as of 2000, the country was producing only around 1,000 short tons.

In addition to commercial energy, Afghanistan utilizes such traditional, "non-commercial" energy sources as wood. According to a study by the ADB, more than 85 percent of Afghanistan's energy needs are met by such traditional fuels, but this has led to serious deforestation in the country.

Afghanistan's power grid has been severely damaged by years of war, and less than 10 percent of its population currently has access to electricity, with Kabul suffering power shortages. Transmission lines from the Kajaki Dam in Helmand province near Kandahar were hit by an airstrike in November 2001, but were repaired in early 2002. On several occasions since then, however, power to Kandahar has been cut off by attacks on the transmission lines. Three hydroelectric power dams provide baseload power to Kabul: the 100-MW Naghlu dam, the 66-MW Mahi Par dam, and the 22-MW Sarobi dam, with the latter two facilities slated to be rehabilitated, under a \$16.9 million contract let to Voith Siemens in early 2004. Due to a lack of water flow on the Kabul River, only the Naghlu Dam, which has a sizable reservoir capacity, is operational all-year round to meet the needs of Kabul. The dams are located about 50 miles from Kabul and are linked by a 110-kV, double-circuit transmission line. Since the early 1990s, United Nations de-

mining teams have intermittently worked on the area around the line. Aside from mines, the power line also has a number of technical problems, which further limit power supplies to Kabul. Prior to the early 1990s, Kabul also had two gas-fired power plants located on the outskirts of the city. ABB recently refurbished one of the plants, which has a 45-MW capacity. It is anticipated to be used to meet peaking demand for the foreseeable future. The other plant, with a 44-MW capacity, was partly destroyed in the early 1990s.

Neighboring countries also supply electricity to some of Afghanistan's border regions. Turkmenistan supplies electricity to much of northwestern Afghanistan, including Mazar-i-Sharif and Herat. This arrangement was affirmed in an agreement signed in August 2002 between the Karzai government and Turkmenistan, continuing an earlier agreement between the Taliban government and Turkmenistan. Uzbekistan also supplies electricity to the northern area around Mazar-i-Sharif, supplementing a small local gas-fired power plant. Uzbekistan resumed its supply arrangement in August 2002, after having terminated supplies of electricity in 1999 during the period of Taliban rule. In May 2003, Tajikistan resumed supplies of electricity to the northern Afghanistan province of Kunduz, although power supplies were expected to halt in October 2003. Iran also supplies electricity to Afghanistan, in some areas directly adjacent to the Afghan-Iranian border in Herat, Farah, and Nimroz provinces. Reportedly, Iran plans to increase power supplies to Afghanistan's Herat province from Khorasan.

Energy Infrastructure at a Glance

Oil

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| Angot Oilfield | Produces a small quantity of crude oil; located in Sar-i-Pol province. Primitive retorts used at the field and near Sheberghan to refine produced oil. |
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Natural Gas

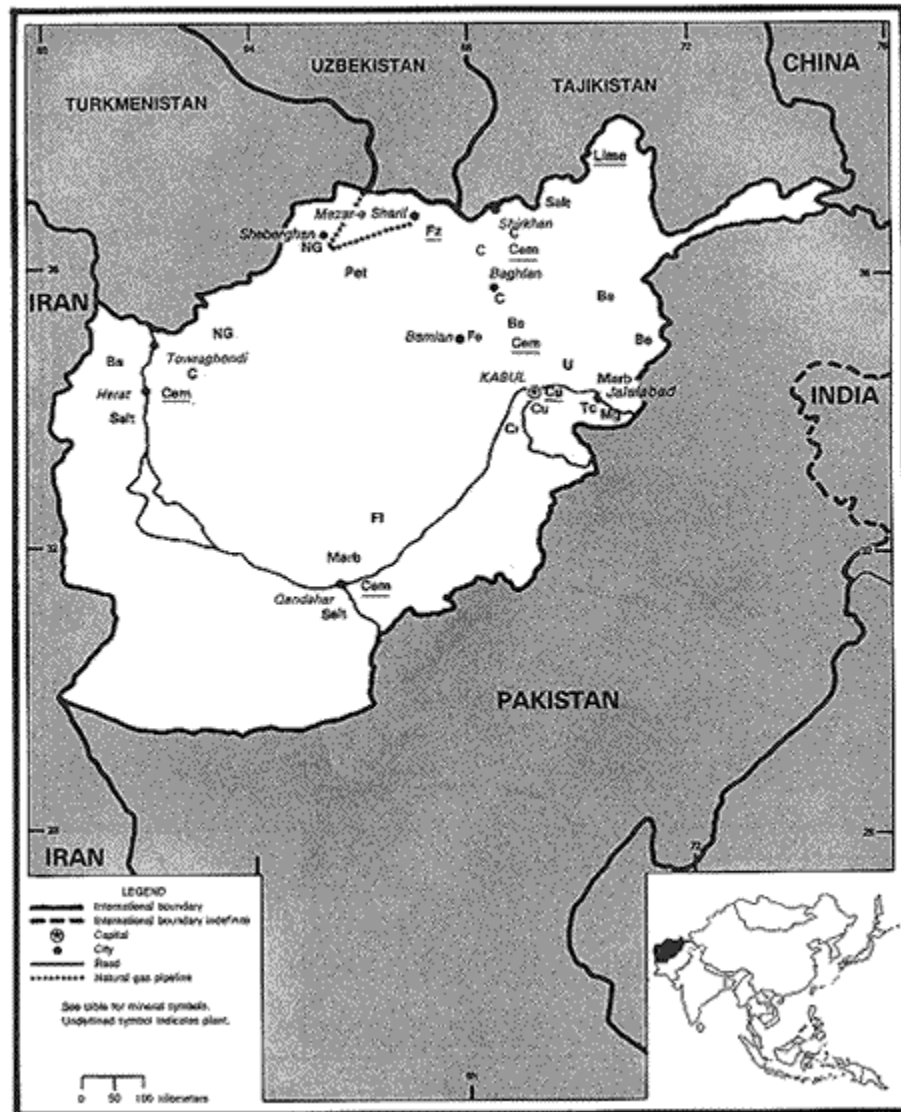
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|----------------------------|---|
| Sheberghan Area Gas Fields | The Djarquduk, Khowaja Gogarak, and Yatimtaq natural gas fields are all located within 20 miles of Sheberghan. |
| Pipeline to Mazar-i-Sharif | A pipeline connects these natural gas fields to Mazar-i-Sharif. Limited amounts of gas currently are supplied to a 48-MW power plant near Mazar-i-Sharif (which is operating at less than one-third full capacity) and for the 100,000 mt/y fertilizer plant, which is partially operational. |
| Local pipelines | Small-diameter pipelines supply gas to the Khwaja Gogerdak and Djarquduk gas fields with Sheberghan and nearby villages . |

Electricity

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| Kajaki Dam | Located in Helmand province near Kandahar; transmission lines to Kandahar repaired in early 2002, after being damaged by airstrikes in November 2001. Upgrading and expansion program is underway. |
| Mahipar Dam | Installed capacity of 66 MW. Near Kabul. Operational only two to three months out of the year (springtime) but currently lacking adequate water. |
| Naghlu Dam | Installed capacity of 100 MW. Operational. Provides most of the electricity used in Kabul. |
| Darunta Dam | Installed capacity of 11 MW. Operational. In Nangarhar province near Jalalabad. |
| Sarobi Dam | Installed capacity of 22 MW. |
| Dahla Dam | Kandahar province. Operational. |
| Mazar-i-Sharif Power Plant | Small natural gas-fired power plant near Mazar-i-Sharif, partially operational at under 30 MW. |

Note: This listing of Afghanistan's energy infrastructure was compiled from information available in press and media sources, and should not necessarily be considered comprehensive. Only facilities which have been reported to be functional or under repair have been included.

AFGHANISTAN



Energy Transit

Due to its strategic location, Afghanistan could become an important pipeline transit route.

Due to its location between the oil and natural gas reserves of the Caspian Basin and the Indian Ocean, Afghanistan has long been considered a potential pipeline route. However, in the near term, there are several obstacles to building a pipeline across Afghanistan. During the mid-1990s, Unocal had pursued a possible natural gas pipeline from Turkmenistan's Dauletabad-Donmez gas basin via Afghanistan to Pakistan, but pulled out after the U.S. missile strikes against Afghanistan in August 1998. The Afghan government under President Karzai has tried to revive the Trans-Afghan Pipeline (TAP) plan, with periodic talks held between the governments of Afghanistan, Pakistan, and Turkmenistan on the issue.

On December 9, 2003, a protocol on the pipeline was signed by the governments of Afghanistan, Pakistan and Turkmenistan. President Karzai has stated his belief that the project could generate \$100-\$300 million per year in transit fees for Afghanistan, while creating thousands of jobs in the country. However, so far no major Western companies have expressed interest in building the project. The security situation in Afghanistan remains an obvious problem, while the difficulty in getting an agreement between India and Pakistan makes it hard to extend the pipeline into India and its large (and growing) gas market. Financial problems in the utility sector in India, which would be the major consumer of the natural gas, also could pose a problem for construction of the

TAP line. The pipeline's \$2.5-\$3.5 billion estimated cost could be an obstacle to its construction.

The Asian Development Bank has sponsored a feasibility study of the project by the British firm Penspen, which was completed in January 2005. The study indicates that the TAP is promising. The study envisions a 56-inch diameter pipeline, with a design capacity of 1.16 Tcf per year. The pipeline would start in Turkmenistan and run 1,043 miles through Afghanistan and Pakistan, terminating at Fazilka, a frontier station on the Indian border. The feasibility study estimated a cost of \$3.3 billion. At this point, the TAP needs sponsors, if it is to move forward.

Links

U.S. Government

[CIA World Factbook - Afghanistan](#)

[U.S. State Department Travel Warning on Afghanistan](#)

[U.S. State Department Consular Information Sheet -- Afghanistan](#)

[U.S. Geological Survey - Afghanistan Natural Resources Map](#)

General Information

[Afghanistan Online](#)

[Washington Post: World Reference -- Afghanistan](#)

[Afghanistan - Roads and Airports Map](#)

[Development Gateway - Afghanistan](#)

Foreign Government Agencies

[Interim Government of Afghanistan](#)

Sources

BBC Monitoring South Asia

BBC Summary of World Broadcasts

Dow Jones

Economist Intelligence Unit

Financial Times Asia Intelligence Wire

Foreign Broadcast Information Service(FBIS)

Global Insight

Platt's Oilgram News

World Markets Analysis

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