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June 2004

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Afghanistan Fact Sheet

The information contained in this report is the best available as of June 2004 and can change.

General Background

Afghanistan currently is governed by a transitional administration headed by Hamid Karzai (national elections are scheduled for September 2004), who took office after a U.S.-led coalition 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 is in very poor condition, although it has benefitted greatly over the past year from increased rainfall, with agricultural output expected to rise by 25% in 2004. During 2003, Afghanistan's overall economy is estimated to have grown by about 24%, with a projected 19% growth rate for 2004.

Foreign aid has begun to flow in to the transitional government, and pledges of assistance now total about \$4.5 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%-60% of Afghanistan's gross domestic product (GDP) derives from trade in opium.

Despite recent progress, the hurdles to recovery in Afghanistan are high. The transitional government has limited authority in much of the country, with lawlessness, the persistence of rival regional power centers, and a weak national army all serious problems. The country's infrastructure also remains in very poor condition, albeit improving. Commerce is inhibited by roads in need of repair, and in many places, existing electricity and telephone lines are 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. Other roads forming the national "ring-road" system, are slated to be repaired as well, with foreign assistance. The Asian Development Bank (ADB), for instance, is providing \$20 million to rebuild parts of the Khulum-Naibabad-Mazar-i-Sharif-Balkh and Naibabad-Hairatan link with Uzbekistan. Several other road and tunnel projects are in the works as well, in addition to improvements on Afghanistan's other infrastructure (on December 23, 2003, for instance, the World Bank approved a \$95 million plan for rural reconstruction activities as part of Afghanistan's National Solidarity Program).

Afghanistan recently replaced its currency. "Old Afghani" notes were exchanged in September 2002 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. On a related topic, it is estimated that Afghans living outside the country had invested \$3 billion in the country (out of an economy with GDP of around \$6-\$7 billion), with the government pushing financial sector and customs reforms, plus a plan to promote private investment in the energy sector.

Energy Overview

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 trillion cubic feet (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. Afghanistan also may possess relatively small volumes of gas liquids and condensate.

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.

The Soviets had estimated Afghanistan's proven and probable natural gas reserves at up to 5 trillion cubic feet (Tcf) in the 1970s. 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 boosted Afghan natural gas output to a peak of 385 Mmcf/d by 1978-79. After the Soviet pullout and subsequent Afghan civil war, most gas wells at Sheberghan area fields were shut in due to technical problems and the lack of an export market in the former Soviet Union.

At its peak in the late 1970s, Afghanistan supplied 70%-90% 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 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 b/d. Near Sar-i-Pol, the Soviets partially constructed a 10,000-b/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 – it's 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% 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 hydro-electric 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, possibly by 2005, 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.

Afghanistan as an Energy 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 mentioned as a potential pipeline route, though in the near term, several obstacles will likely prevent Afghanistan from becoming an energy transit corridor. 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, but little progress appears to have been made as of early June 2004 (despite the signature on December 9, 2003, of a protocol on the pipeline 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.

Given the obstacles to development of a natural gas pipeline across Afghanistan, it seems unlikely that such an idea will make any progress in the near future, and no major Western companies have expressed interest in reviving the project. The security situation in Afghanistan remains an obvious problem, while tensions between India and Pakistan make it unlikely that such a pipeline could be extended 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. Finally, the pipeline's \$2.5-\$3.5 billion estimated cost poses a significant obstacle to its construction.

Energy Infrastructure at a Glance

Oil

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

Sheberghan Area Gas Fields	The Djarquduk, Khowaja Gogerak, 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 is 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

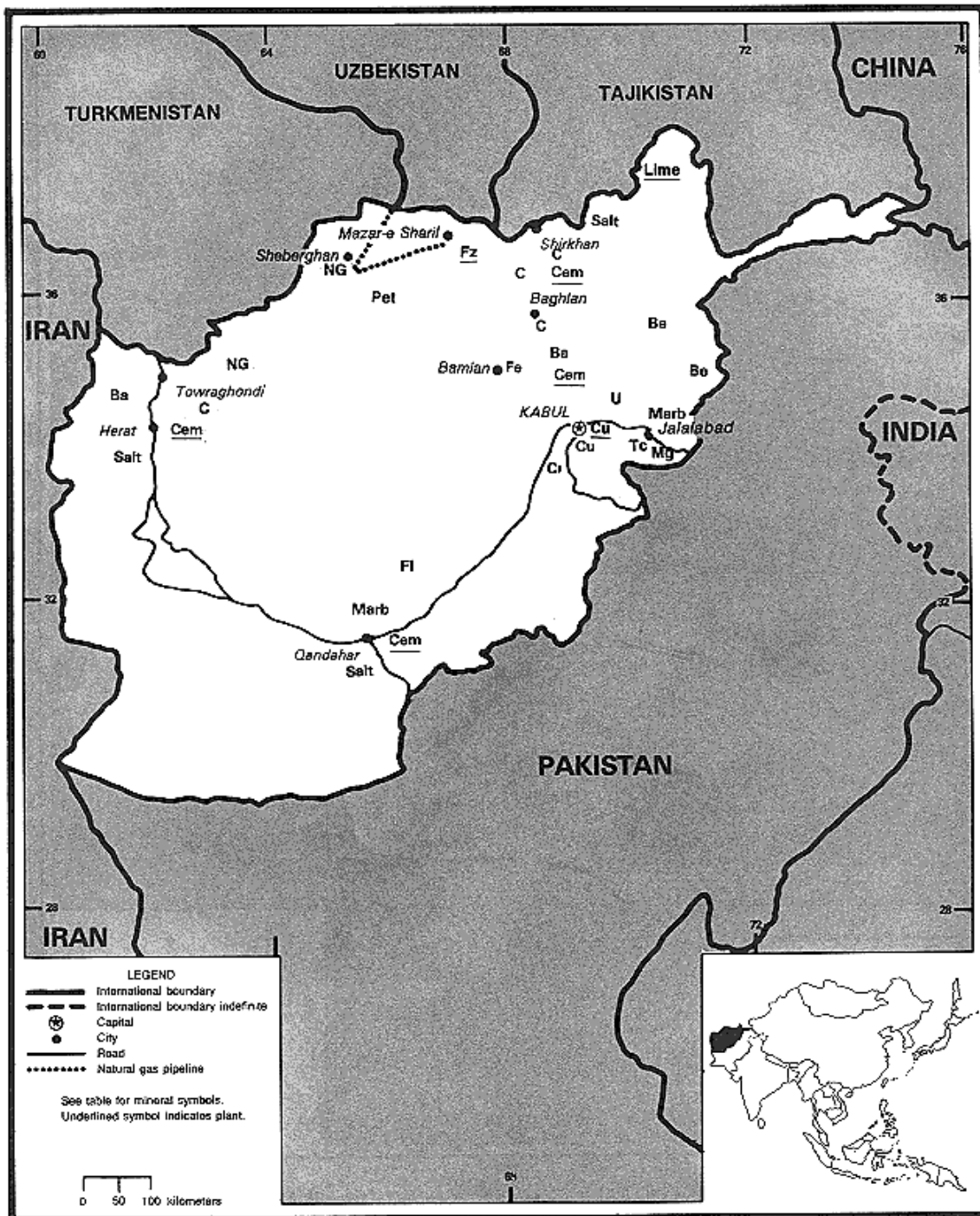
Kajaki Dam	Located in Helmand province near Kandahar; transmission lines to Kandahar repaired in early 2002, after being damaged by airstrikes in November 2001. Upgrading and expansion program
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	is underway.
Mahipar Dam	Installed capacity of 66 MW. 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.

U.S. Geological Survey - Map of Afghanistan's Natural Resources

AFGHANISTAN



Sources for this report include: 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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File last modified: June 2, 2004

Contact:

Lowell Feld

lowell.feld@eia.doe.gov

Phone: (202) 586-9502

Fax: (202) 586-9753

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