

# Afghanistan Telecom Brief



By Ken Zita

In 2002, Afghanistan's prospects for telecom appeared bleak. The political instability and profound poverty following 23 years of continuous conflict suggested that Afghanistan would have neither the economic means nor political will to restore its shattered communications infrastructure. After just two years, dramatic progress has been made. The government has approved a sector development action plan; put in place a progressive policy and regulatory roadmap; and attracted an estimated \$130 million in private investment. In this short time, more than 170,000 mobile users have been added – increasing the number of people with access to telephone by a factor of five.

Throughout 2004 the Ministry of Communications will begin implementation of several major projects that promise to make a profound impact on the country's overall pace of change and continued progress toward civil security. A new telecommunications law under the recently ratified constitution will separate the government's role from service operation; establish an independent regulatory authority; identify clear property rights for the private sector; and define market-oriented rules for interconnection and the issuance of licenses and tariffs.

Significant commercial projects are also being initiated by the state carrier, Afghan Telecom, with the assistance of the international donor community. A national satellite network will be commissioned to link provincial capitals and major towns as well as outlying district areas. Local access networks are being expanded with wireless systems acquired through international competitive tenders, and a planned fiber optic backbone is expected to progress from feasibility and planning to implementation, with active private sector participation. Despite the overall level of market risk, Afghanistan has embraced a liberal approach to the private sector and telecom growth in the near term is expected to be strong

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## Key Indicators

Transitional Islamic State of Afghanistan	
Population	~25 million
GDP	\$4 billion (2002-3)
GDP growth*	28.6% (2003)
GDP per capita	\$180-\$190
PPP	\$19 billion
PPP per capita	\$700
Literacy	36%
Phone lines	85,000 (2004)
Phone density	0.34 (2004)
Mobile phones	500,000 (2Q04)

Sources: U.S. Department of State, CIA Factbook, World Bank, Network Dynamics

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### Political and Economic Brief

Afghanistan continues to astonish and captivate the world with the resilience of its people and culture. Throughout two decades of conflict Afghanistan has survived a Soviet invasion and occupation; superpower proxy warfare; a nasty internecine civil war; political and military tinkering by powerful neighbors; an Islamic fundamentalist regime led by the Taliban, which devolved into a global terrorist client state; five consecutive years of extreme drought; and the military firepower of the American-led Operation Enduring Freedom. Roads, electric power plants, hospitals, schools, irrigation and telecommunications infrastructure, sparsely developed before the quarter century of destruction, were in ruins by the time the Taliban were ousted in December 2001.

Unlike Iraq, the political and economic reconstruction process in Afghanistan is successfully passing key milestones. Afghanistan benefits from the presence of a broad multinational coalition coordinated by the UN and supported by donor agencies and many nations. The International Security Assistance Force (ISAF), a 5500-strong international peacekeeping force, has had a positive impact protecting Kabul. After transitioning to North Atlantic Treaty Organization (NATO) command in February 2004, ISAF began to deploy beyond the capital into provincial areas. As of April 2004 the U.S. leads an additional force of 13,500 that has stepped up operations in a coordinated effort with Pakistan, Operation Mountain Storm, characterized as a 'hammer and anvil' approach in seven southern and eastern provinces. U.S. forces are now also leading Provincial Reconstruction Teams (PRTs). The PRTs reflect a shift in strategy away from large military deployments to a "hearts and minds" campaign focused on community-level civil projects and improved local intelligence. By summer 2004, 16 teams will be in place, each consisting of 60 to 100 members tailored to a region's specific needs.

Taliban elements and allies in Pakistan continue to operate out of the Pashtun tribal belt, attacking Karzai supporters, foreign aid officials, and the U.S. military. The new Afghan army and police are making good progress but training will take time, forces remain weak and recruitment lags force demands. Regional warlords, entrenched since Afghanistan's civil war and growing stronger with bumper profits from drug trafficking, continue to pose challenges to the evolution to democratic rule. Overcoming autonomous local leaders and warlords outside the capital pose a big challenge to central authority. The most prominent regional leaders are Ismail Khan in Herat, near Iran, ethnic Uzbek warlord Abdurrashid Dostum in the northwest and his rival Atta Muhammad around Mazar-e-Sharif, and Gul Agha in southern Kandahar, as well as some functionaries who work for the transitional administration. UN Secretary General Kofi Annan highlighted the dire security situation in December 2003: "Unchecked criminality, outbreaks of factional fighting and activities surrounding the illegal narcotics trade have all had a negative impact."

The framework for post-war Afghanistan and the political process for establishing a permanent national government were set at the December 2001 Bonn Conference. At that time, representatives of Afghanistan's major political and ethnic groups elected now-president Hamid Karzai as chief of the transitional authority. Karzai, an ethnic Pushtun, anti-Taliban activist and son of a prominent political family, has acted shrewdly since being installed as leader. In accordance with the Bonn accord, Afghanistan's *loya jirga* (grand assembly) met in June 2002 and elected Karzai president of the Transitional Islamic State of Afghanistan (TISA). It met again in December 2003 to debate and ratify a new constitution, superseding the 1964



constitution and amendments made during the Taliban period. The constitutional adoption process posed the biggest confrontation of Karzai's presidency: a strong minority of delegates opposed the presidential system that was later adopted, favoring instead greater provincial autonomy. In the build-up to the *loya jirga*, the Taliban stepped up their assassinations and kidnappings of foreign aid workers and contractors and their attacks on U.S. and Afghan soldiers in southern Afghanistan. The new constitution is an inspiring document, pledging a multi-ethnic future that defends universal human rights and provides protection to minorities and women. The difficult work of implementation lies ahead.

Presidential and parliamentary elections scheduled for June 2004 have been postponed under the advice of the UN Mission in Afghanistan (UNAMA), the European Union and others. Security conditions remain dangerous or uncertain in at least a third of the country. Reports as of 1Q04 indicate that only 8 percent of eligible Afghan voters have been enrolled; among women, only 2 percent have registered. The UN has said that for the elections to be considered successful, at least 70 percent of eligible voters should be registered.

The voluntary repatriation and resettlement of over 2 million Afghan refugees from Pakistan, Iran and the Central Asian Republics has been an extraordinary achievement. Afghan refugees have posed an overwhelming crisis for the international humanitarian assistance community and neighboring countries. For twenty years, an estimated 4-6 million refugees fled to Pakistan and Iran alone, plus those internally displaced within Afghanistan and 100,000 refugees from Tajikistan's civil war in 1992-3. UNHCR estimates that 1.9 million refugees from camps in Pakistan, 670,000 from Iran and 230,000 internally displaced Afghans have returned home since voluntary repatriation efforts began in 2002. Many have received materials for rebuilding homes from UNHCR. UNHCR is optimistic that another 400,000 Afghans will return in 2004 from Pakistan's North West Frontier province, under a tripartite agreement between UNHCR, Afghanistan and Pakistan.



Despite many positive developments, Afghanistan remains an insecure country with daunting challenges. Political tensions over central leadership remain high. The Karzai administration is a coalition government comprised of former Northern Alliance supporters (ethnic Tajiks) and Pushtuns (who comprise approximately 40 percent of the population), as well as a few other groups such as the Hazaras. Additionally, loyalists to ethnic Tajik former President Burhanuddin Rabbani, among others, hope to increase their political position in both national and regional elections.

### Demography and Economy

Afghanistan has an area slightly smaller than Texas, landlocked between Iran, Turkmenistan, Uzbekistan, Tajikistan, China and Pakistan, and comprised of 32 provinces. The Hindu Kush mountains in the north, and the towering northern Wakhan (Wakhan Corridor), cut northeast to southwest dividing the northern provinces from the rest of the country. Afghanistan's estimated

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25 million people are comprised of a dozen ethnic groups, attesting to the country's rich multicultural heritage that developed in the confluence of a variety of traditional trade routes. The dominant groups are the Pashtuns (40%) and Tajiks (25%). Others include Hazaris (10%), Uzbeks (8%) and a variety of other groups such as Aimaks, Turkmen and Balochi. An 84% majority are Sunni Muslim, 15% are Shi'a Muslim. The two major languages are Dari (Afghan Persian), spoken by 50% of the population, and Pashtu, spoken by 35%. Turkic languages, mainly Uzbek and Turkmen, are spoken by others. Dari is the language of business and higher education and bilingualism is a way of life. A number of senior officials speak English or German.

Where available, social and poverty indicators are grim. Life expectancy is about 43 years and Afghanistan has the fourth worst child mortality rate in the world: one in four children die before the age of five. Only 13 percent of the population has access to clean drinking water and 12 percent to sanitation facilities. An estimated 70 percent are malnourished, with little or no medical care, insufficient food, clothing or jobs. General lawlessness, particularly in areas outside of the major cities of Kabul, Herat, Kandahar, Maraz-i-sharif and Kunduz, complicates already extreme social challenges. Literacy is low. Before the war, the literacy rate was estimated at 11.4 percent (18.7 percent male; 2.8 female). In urban settings the figure was 25.9 percent (35.5 percent male; 14.8 percent female) but in rural areas the literate accounted for only 8.8 percent of the population (15.7 percent male; 0.6 percent female, in some provinces 0.1 percent).. Women and girls are going back to school after the restrictions imposed by the Taliban.

The lack of accurate national social and economic data has made reconstruction more difficult in all spheres. One of Karzai's first acts after the Bonn accord was to order a new national census. Past data is considered unreliable as people feared retribution from the Soviet puppet government, mujahedin fighters or local warlords. Similarly, Finance Minister Ashraf Ghani has implemented comprehensive statistical tracking of key indicators, including development aid, to facilitate the reconstruction effort.

Afghanistan's economy is inherently dependent on donor financial support. Unfortunately, it lags far behind other post-conflict societies in terms of per capita donor spending. Per capita assistance for Afghanistan totaled \$67 during 2002-03, according to CARE. By contrast, East Timor received \$256 per capital from 1999-2001; Bosnia-Herzegovina received \$249 per capital from 1995-97; and Rwanda received \$98 per capita from 1994-96. According to a report last September by Care and the New York-based Center on International Cooperation, only 40 percent of the overall \$5.2 billion pledged two years ago had been released. Nearly a quarter of that aid has been diverted from long-term reconstruction to short-term emergency needs. For example, of \$1.7 billion pledged for 2002, approximately \$900 million was directed strictly to humanitarian aid -- food, clothing and shelter -- and another \$90 million for the government, including settlement of past salaries for the military. In 2002, combined U.S. relief and reconstruction aid totaled \$928 million.

At a March 2004 donor's conference in Bonn, Afghanistan received commitments of \$8.2 billion over three years (\$4.4 billion in 2004) – a fraction of the \$27.5 billion over seven years, or \$4 billion per year, sought by president Karzai. During the conference, the United States announced that it was substantially increasing its aid outlay to Afghanistan to \$2.2 billion. Nevertheless, that

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figure is dwarfed by the roughly \$12 billion spent annually by the United States on ongoing military operations. With about 13,500 US troops in Afghanistan, the Bush administration is expending roughly \$1 million on each American soldier per year in the country. Even if donor nations had pledged the full \$27.5 billion, that figure would have raised the level of per capita assistance only from \$67 to \$182.

Afghanistan is once again the world's largest opium producer, supplying 75% of the world's illicit opium supply, 80-90% of heroin consumed in Europe, and the transit point for a variety of opiate products. Opium production and distribution is estimated to account for up to half of GDP. Finance Minister Ashraf Ghani has repeatedly warned that Afghanistan requires \$30 billion in aid and investment over five years to avoid becoming a "narco-mafia" state. Poppy cultivation has thrived in the recent five year drought, just as production of other commodity crops plummeted. Criminal financiers and narcotics traffickers have taken advantage of the fragile security situation and poor farmers in a rural economy decimated by years of war and drought. Afghanistan's famous informal but resilient nationwide *hawala* system of money-changers, who also act as small banks, make Afghanistan more vulnerable to narcotics money laundering. The State Department recently reported that at 2865 metric tons and 61,000 hectares under cultivation, the 2003 crop was the highest on record. (The UN says 2002 production was 18 times that of 2001). Poppy is grown commercially in 28 of Afghanistan's 32 provinces and is the only crop for which a rural Afghan farmer can easily obtain credit to cultivate.

The macroeconomic environment is challenging but holds promise. GDP has expanded more than 30% a year since the fall of the Taliban. The easing of the five-year drought in 2003 brought the largest wheat harvest in 25 years, 58% higher than the year prior. While Afghanistan has excellent potential in agriculture -- 12% of land is arable and fertile -- only 6% of that is in cultivation, and the government is working to accelerate food crop substitution. The country still has to import wheat and millions of Afghans, particularly in rural areas, are dependent on food aid. The transitional government is struggling to collect taxes and customs revenues and has to rely on foreign donors to pay government salaries. Exports represent a small portion of Afghanistan's documented economy. 2002-3 exports, not including opium, were about \$100 million (half to Pakistan and Iran) compared with imports of \$2.3 billion (40 percent from Japan, Korea, and Pakistan). Soviet estimates in the 1970s put natural gas deposits at 5 trillion cubic feet, 95 million barrels of oil, and 400 million tons of coal.

The "brain drain" from Afghanistan has been especially severe and the trained managerial and technocratic class is almost non-existent. While many talented Afghani expatriates have returned to assist with reconstruction, the shortage of capable mid-level managers is one of the most intractable long-term development issues.

An important reconstruction project -- reportedly under budget and ahead of schedule -- is the Kabul-Kandahar leg of the national ring road. This new highway will promote political unity between Afghanistan's provinces, open alternative trade routes for international commerce, and provide the Afghan people with greater access to health care and educational opportunities. It also coincides with the planned route for the nationwide fiber optic backbone network.

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## Telecom Policy Environment

Afghanistan began its telecom reconstruction program in June 2002 following a national assembly known as the *loya jirga*. At that time, a new Minister of Communications was appointed, H.E. Massoom Stanekzai, and the Karzai government set in motion a strategy to enlist information and communications technologies in support of the broader effort to rebuild the nation. Telecom is seen as essential to stimulating economic activity in all sectors, promoting democracy and civil security, and restoring administrative control.

Afghanistan is committed to following international best practices in telecommunications sector reform and has embraced a market regime based on aggressive market liberalization, transparent regulation, fair competition and private sector participation. Currently communications between the central government and regional authorities are ineffective. The Government and Bank of Afghanistan have limited ability to collect taxes and customs duties, establish a modern banking system or effectively manage personnel payments and the national money supply. On a political level, reliable communications is considered critical to the success of the planned national elections and to increasing Kabul's administrative power throughout the country. Communications is also regarded as an important enabler that lays the foundation for a recovering Afghanistan that will be vibrant, productive and strong.

In October 2002, the Ministry published a national *Telecommunications Development Strategy* that outlines the key infrastructure development initiatives the Government seeks to accomplish (<http://www.moc.gov.af/mocdoc/TelecomsDevStrategy-IGoct02.pdf>). Financial budget plans for the telecommunications sector, including specific items identified in the *Development Strategy*, can be found at: [http://www.afghanistangov.org/mof/adf\\_meeting.html](http://www.afghanistangov.org/mof/adf_meeting.html). The *Strategy* is a roadmap of principle objectives for the sector, and forms the basis for the Government's appeal to the international donor community for funding. Highlights of the document include:

- *Quickly restore the productive capacity* of the existing public network with expanded and upgraded systems in the primary and secondary cities;
- *Establish a national long distance network* to provide basic voice, data and Internet communications to even the remotest regions in the nation;
- *Establish a National Backbone Network* around the country that connects major domestic population centers and our international neighbors;
- Issue additional nationwide licenses for Fixed Telecommunications Services;
- Issue multiple ISP licenses;
- *Increase teledensity* from 0.18% to 0.43% in 2003/2004 (a goal that is on target);
- *Increase mobile teledensity* from the present 0.92 users per thousand population to 2.52 mobile user in 2003/2004 (also on target);
- Maximize the use and value of radio frequency spectrum through competitive international tenders; and,
- *Establish tele-centers in small communities* to link all 423 administrative districts with Kabul, with each other, and with the rest of the world.



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In October 2003, Afghanistan approved a comprehensive *Telecommunications and Internet Policy* that was ratified and published by the Cabinet. (The full text of the Policy can be found at: <http://www.moc.gov.af/mocdoc/Telecommunication%20policy.%20final%20edition.English.doc>.) Both the *Strategy* and *Policy* projects were facilitated through a technical assistance grant from USTDA awarded to Network Dynamics Associates.

The Policy was developed through an engagement process that brought together a wide range of constituencies from official Afghan government sources, multilateral funding agencies, bilateral donors, non governmental organizations, expatriate Afghan-Americans, and concerned Afghan citizens. The themes and substance of the Policy thus reflect a broad spectrum of discourse, and are calibrated closely with the Government's overall economic development and market liberalization goals. General principles adopted in the Policy include:

- *Create a legal and regulatory environment that nurtures and accelerates industry growth.* With the new constitution in place, the Government intends to introduce a *Telecommunications Law* to define the rights and responsibilities of market participants. The Law will establish the legal basis for the creation of an independent telecommunications regulator, the *Telecommunications Regulatory Authority of Afghanistan (TRAA)*. The TRAA will be established with a technical assistance grant from the World Bank.
- *Engage private investment to the greatest extent possible.* The government considers the participation of private investors to be essential to success of the reforms.
- *Establish a level playing field for competition.* The role of the state in providing telecommunications services will be reduced in favor of transparent and market-based competition among commercial enterprises.
- *Introduce market liberalization.* In the near term the Government will maintain a framework of limited, managed competition for strategic infrastructure projects. Aggressive liberalization of the sector is anticipated in January 2006.
- *Encourage the usage of Internet and information and communications technologies (ICTs).* The Government is committed to pursuing an open, flexible, and technology-friendly regulatory strategy to encourage the deployment of the latest technologies throughout Afghanistan.
- *Create a National Development Fund* amounting to 2.5% of operators' net revenues to boost rural investments.

Private sector investment is the keystone to the government's redevelopment plan. Cumulative private investment in the telecommunications sector for the period 2002-2003 is estimated at approximately \$130 million. By comparison, all public funding for telecommunications over the same period from international donor sources totals less than \$5 million. Until recently, the international community has largely abdicated responsibility for providing material reconstruction assistance in the telecom sector. Due chiefly to the so-called "Washington Consensus" championed by the World Bank, donors have shunned providing telecom reconstruction funds for public services, opting instead to provide technical assistance in support of institutional restructuring.

The U.S. government has also taken a largely hands-off approach to underwriting Afghanistan's telecoms, despite the obvious need for emergency support following the war. In late 2003, it was recognized that much of the Afghan government's difficulties with administrative control, revenue collection and stabilizing domestic security were linked in part to the absence of effective communications. Equally important, the holding of national elections requires an ability to communicate with remote polling locations. In October 2003 the \$87 billion supplemental spending bill approved by Congress included a slice of funding for Afghan telecom-related projects embedded in a provincial reconstruction plan. The MoC is the coordinator for an integrated effort that combines diverse requirements of the MoC, the Ministry of the Interior (police and judiciary), and the Ministry of Urban Affairs. This "Rebuild, Reconnect, Reunite" initiative is meant to assist with preparations for national elections; make improvements to civil security and police operations; and reestablish the central Government's presence in the regions. It will also enable the Ministry of Finance to more efficiently manage financial flows. The U.S. is estimated to have committed \$25 million and the UK £20 million (\$37 million), for a total of about \$62 million. About a third of the total is expected to be applied toward communications facilities.

After a two year review period, the World Bank is preparing to disburse technical assistance grants and low-interest loans totaling approximately \$22 million. A significant portion will be applied toward establishment of a "Government Communications Network" to provide a satellite backbone facility for Afghan Telecom (an apparent reversal of the Bank's policy not to lend to public sector telecom operators), reconstruction of the main international earth station in Kabul, and restoration of a microwave link to Pakistan.

### Telecom Market Overview

Afghanistan has an estimated 85,000 working telephone main lines for a population of approximately 25 million. This equates to a teledensity of about 0.34 main lines per 100 population, one of the lowest levels in the world. This capacity in early 2004 represents a doubling of the teledensity in 2002. In August 2003, the MoC signed a contract with Huawei and ZTE for a total of 87,000 lines. The awards are for digital Class 5 switches plus CDMA wireless local loop using the v5.2 interface (limited mobility) – a technological feature that led U.S. vendors to not bid. Approximately half of the new lines are estimated to be installed. Additional tenders for switching are under consideration; the pace of expansion is expected to be governed primarily by access to investment capital. The government hopes to have 180,000 lines in service by the end of 2004, and replace all remaining analog facilities. Kabul has by far the greatest number of installed and active lines.

Mobile growth has been extremely rapid, reaching an estimated 170,000 subscribers as of 2Q04. Two private sector operators have been licensed to operate, both using the GSM standard: Afghan Wireless Communications Corp (Afghan Wireless) (<http://www.afghanwireless.com/>) and Telecom Development Company Afghanistan Ltd., which operates under the brand name *Roshan* ([www.roshan.af](http://www.roshan.af)). The *Policy* indicates that no other providers of GSM mobile telephony services will be introduced before January

Provider	YE2002	YE2003	Q2004est.
AWCC	40,000	70,000	90,000
Roshan		60,000	80,000
Total	40,000	130,000	170,000



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10, 2006. However, a tender for a third operator is expected to be announced before the end of 2004 in anticipation of market liberalization.

Afghan Wireless inaugurated GSM services in Kabul in April 2002. Since that time, the company has invested an estimated \$75 million, grown to 90,000 subscribers and 800 employees, and has deployed operations in Herat, Mazar-i-sharif and Kandahar. Traffic on the network quickly exceeded all expectations. In late 2003 Afghan Wireless completed a \$14 million upgrade of its switching platform to accommodate accelerating demand, utilizing a 100,000-line Siemens switching platform that replaced smaller switches from the U.S. vendor, Tecor. Afghan Wireless is 80 percent owned by Telecommunications Systems International (TSI) of the US and 20 percent by the Afghan Ministry of Communications. The firm had initially operated a variety of network services, including fixed line and public call centers. It was required to divest the operations as part of a process to normalize its service license as part of the public tender for a second GSM provider held in the summer of 2002. Afghan Wireless hopes to broaden its position in the Afghan telecom market and is actively pursuing development opportunities.

Roshan began operations on July 27, 2003. It secured an estimated 60,000 subscribers in its first six months of operations, and surpassed its first-year operating targets within several months of project launch. It is estimated to have nearly split the market with Afghan Wireless. The firm is a consortium led by the Aga Khan Foundation for Economic Development (AKFED), the economic development arm of the Aga Khan Development Network (AKDN), which holds 51 percent. Other shareholders include Monaco Telecom International with 35 percent; MCT, a US telecom holding company with networks in Central Asia, with 9 percent; and the balance of 5 percent is owned by Alcatel. Its initial capital base is \$55 million and will enable the firm to provide coverage in Kabul, Herat, Kandahar, Mazar-i-Sharif, Jalalabad and Kunduz. It has begun providing coverage on the main highways linking the cities. Roshan plans a total investment of at least US\$120 million.

Afghanistan does not have a national long distance network connecting major population centers, lesser towns or the national borders. The absence of a domestic “backhaul” network is a major obstacle to disseminating affordable telecommunications services throughout the country. Long distance communications are currently accomplished via VSAT only between Kabul and Herat, Mazar e Sharif, Kandahar and Jalalabad. Afghanistan also does not have a terrestrial back-up route for international connectivity; a typhoon at a relay station in Guam once took down all the country’s communication with the world. Funding for a \$1.4 million microwave link to Pakistan destroyed during the war was only allocated in January 2004, despite official approval of the project by the Afghanistan Reconstruction Trust Fund in October 2002. The delays are believed to be due to the bureaucracy by one of the administrators of the ARTF.

As of 1Q2004, the MoC was in the final stages of a competitive tender for a national satellite hub station and associated backbone network linking all 32 provincial capitals. Funding for the “Government Communications Network” (GCN) project for Afghan Telecom is slated to be provided by World Bank. The Afghan Assistance Coordination Authority (AACAA), an arm of the government, released a tender in December 2003 for initial connectivity to 18 provinces. The project also includes local networks are terminating offices.



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and the remaining 15% with high-speed microwave. In 2003, USTDA provided a technical assistance grant to the Ministry, awarded to Alcatel (US), to conduct a feasibility study for the project. The preliminary cost of the project over three years is estimated at least \$50 million. The government “welcomes a joint venture” for funding and operation of the network, and will likely seek long-term low interest loans from World Bank to underwrite part of the project.

The Government intends to divest the Telecommunications Department of the Ministry of Communications into a state-owned enterprise, “Afghan Telecom,” with the assistance of the World Bank. Once the contract is underway, Afghan Telecom will be restructured as a commercial enterprise and encouraged to seek strategic private equity partners. Significantly, Afghan Telecom is likely to corporatized and privatized simultaneously.

Upcoming planned procurements include the fiber ring, WLL switching, microwave and spectrum monitoring equipment.

Additionally, the Government expects to tender a Fixed Service Provider (FSP) license by mid 2004. Local Fixed Service Provider (LFSP) licenses will be issued to community-based operators in small cities, towns and villages seeking to rapidly expand communications services through private investment.

Finally, the government is proud, and justifiably so, in having restored its telecommunications training institute to prepare a new generation of Afghan engineers. Iran has committed about \$4 million to underwrite programs, and the ITU will develop a curriculum and coordinate implementation. The US Telecommunications Training Institute and Cisco Academy are also involved.

