



# Report and Recommendation of the President to the Board of Directors

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Project Number: 42919  
July 2008

## Proposed Loan and Political Risk Guarantee Roshan Expansion Project (Phase III) (Islamic Republic of Afghanistan)

In accordance with ADB's public communications policy (PCP 2005), this abbreviated version of the RRP excludes confidential information and ADB's assessment of project or transaction risk as well as other information referred to in paragraph 126 of the PCP.

**Asian Development Bank**



## CURRENCY EQUIVALENTS

(as of 31 May 2008)

Currency Unit	–	afghani/s (AF)
AF1.00	=	\$0.02
\$1.00	=	AF49.66

## ABBREVIATIONS

ADB	–	Asian Development Bank
AKDN	–	Aga Khan Development Network
AKFED	–	Aga Khan Fund for Economic Development
ARPU	–	average revenue per user
ATRA	–	Afghanistan Telecommunications Regulatory Authority
AWCC	–	Afghan Wireless Communications Company
BTS	–	base transceiver station
CDMA	–	code division multiple access
CFO	–	chief financial officer
DAB	–	Da Afghanistan Bank (Central Bank of Afghanistan)
DEG	–	Deutsche Investitions- und Entwicklungsgesellschaft mbH
EBIT	–	earnings before interest and taxes
EBITDA	–	earnings before interest, taxes, depreciation, and amortization
GDP	–	gross domestic product
GSM	–	global system for mobile communications
IPS	–	Industrial Promotion Services
IT	–	information technology
MOC	–	Ministry of Communications
MTI	–	Monaco Telecom International
PCO	–	public call office
PRG	–	political risk guarantee
PROPARCO	–	Société de Promotion et de Participation pour la Coopération Economique
Q	–	quarter
RRP	–	report and recommendation of the President
SIM	–	subscriber identity module
SMEs	–	small and medium-sized enterprises
UAE	–	United Arab Emirates
VSAT	–	very small aperture terminal

## GLOSSARY

General packet radio service	–	Mobile data transfer service used for access to the internet, communication services such as e-mail, and world wide web.
Intelligent network	–	Network architecture that allows operators to differentiate themselves by providing value-added services in addition to standard telecom services.
Short message service center	–	Responsible for relaying, storing, and forwarding a short message between mobile devices.
Home location register	–	Database used for permanent storage and management of subscriptions and service profiles.
Global system for mobile communications	–	System where both signaling and speech channels are digital call quality.
Synchronous digital hierarchy	–	Fiber-optic transmission system for high-speed digital traffic.
Subscriber identity module	–	Provides secure storing of the key identifying a mobile phone service subscriber, as well as subscription information, preferences, and storage of text messages.
Very small aperture terminal	–	Small earth station for satellite transmission that handles up to 56 kilobits/sec of digital transmission.

## NOTES

- (i) In this report, "\$" refers to US dollars.
- (ii) The fiscal year ends on 31 December.

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## FINANCING AND PROJECT SUMMARY

<b>Borrower</b>	Telecom Development Company Afghanistan Limited (Roshan), a private limited liability company incorporated in the Islamic Republic of Afghanistan.
<b>Proposed Participation</b>	(i) A term loan of up to \$60 million without government guarantee. (ii) Political risk guarantee (PRG) of up to \$10 million plus interest to cover the DEG loan facility.
<b>Classification</b>	Targeting classification: General intervention Sectors: Multisector (transport and communications, finance) Subsectors: Telecommunications and communications, microfinance, finance sector development Themes: Sustainable economic growth, private sector development Subthemes: Addressing information and communication technology issues, private sector investment
<b>Environmental and Social Safeguards Classification</b>	Environment: C Involuntary resettlement: C Indigenous peoples: C
<b>Project Description</b>	<p>The phase III expansion of Roshan, the largest mobile telecommunications service provider in Afghanistan, capitalizes on the success of Roshan's successful first- and second-phase expansions partly financed by the Asian Development Bank (ADB), and aims to address remaining unmet demand for affordable telecom services in semi-urban and rural areas of Afghanistan—furthering pro-poor, inclusive economic growth.</p> <p>The Project will expand interconnectivity within and outside the country, enhance network redundancy, further reduce prices, and assist in providing additional value-added functionality (such as mobile money transfer services) and the rollout of environmentally friendly infrastructure (such as solar panels).</p>
<b>Estimated Project Completion Date</b>	December 2010
<b>Rationale</b>	<p>The Afghanistan telecom market has grown at an unprecedented pace over the last 4 years, since Roshan's entry. However, network coverage is still limited to roughly half of the population. Significant unmet demand remains, especially in the remote and war-torn areas, which lag far behind in the nation's reconstruction efforts and for which telecom services are vital.</p> <p>Mobile communication network expansion in Afghanistan is still constrained by lack of funds and lack of funding sources. The proposed Project will help unblock this constraint and help to further spur a thriving sector that is the main driver of private sector development in Afghanistan.</p>
<b>Project Benefits and Beneficiaries</b>	(i) <b>Inclusive economic growth.</b> Addresses remaining unmet demand for affordable telecom services in semi-urban and rural areas of the country. As largest single taxpayer in Afghanistan, Roshan helps support the

- Government's development agenda.
- (ii) **Rural development and reconstruction.** Ensures nationwide coverage to remote and war torn areas, which lag far behind in the nation's reconstruction efforts and for which telecom services are vital.
  - (iii) **Promotion of commerce and microfinance.** Supports countrywide rollout of mobile money transfer platform for handheld phones in an innovative and effective manner that does not require end-users to open bank accounts.
  - (iv) **Private sector development.** Supports and showcases the leading example of good governance and corporate and social responsibility in Afghanistan. Encourages nascent private sector and hesitant foreign direct investment.
  - (v) **Regional integration.** Expands interconnectivity with neighboring countries (and internal integration, enhancing connectivity between remote areas of a geographically divided country).
  - (vi) **Social benefits.** Assists in providing access to public service delivery, education, health, and security. Direct training, employment, and business opportunities in underdeveloped areas for staff, dealers, and subcontractors. Further rollout of public call offices operated by female entrepreneurs. Access to markets, access to information, and support to families and communities that are often fragmented.

#### **Sponsors**

(i) Aga Khan Fund for Economic Development (AKFED), the economic development arm of the Aga Khan Development Network (AKDN), a group of private, nondenominational development agencies; (ii) Monaco Telecom International, which operates global system for mobile communications (GSM) services in Monaco and Kosovo, and which is controlled by Cable & Wireless, the UK-based telecommunications company; and (iii) TeliaSonera, a Sweden-based leading provider of mobile telecommunications to Central Asia, including Kazakhstan, Georgia, Tajikistan, and Uzbekistan.

#### **Project Investment Plan**

The investment cost of the Project is estimated at \$175 million. This includes capital expenditure into new districts, upgrading and swapping of equipment with higher quality but with lower cost for services, transforming sites to use solar power, and financing costs during implementation. The investment cost has been calculated over the period from January 2008 to December 2010, the Project's planned completion date.

## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan and political risk guarantee (PRG) for the phase III expansion of Roshan's mobile communications network (the Project).

## II. INTRODUCTION

*"Asia's infrastructure demand—estimated at more than \$300 billion a year—needs to be met to ensure inclusive growth and poverty reduction. Roads, energy, water, telecommunications—these are the lifelines connecting families and communities to a brighter future" – ADB President, Haruhiko Kuroda<sup>1</sup>*

2. **Phased Asian Development Bank Assistance—Phases I and II.** Roshan is the clear leader in Afghanistan's mobile telecommunications market. The Asian Development Bank (ADB) has assisted Roshan's growth in a phased manner. In November 2004, ADB approved a loan of \$35 million to finance the phase I expansion of Roshan's mobile cellular telephony network and restructuring of its capital base very shortly after it started operations.<sup>2</sup> To cater for tremendous consumer demand for mobile telecom services, ADB provided a further loan of \$50 million (of which \$15 million was funded by commercial banks under a B-loan), and a political risk guarantee of \$10 million to finance phase II expansion toward the goal of countrywide coverage in June 2007.<sup>3</sup> The loans are fully drawn, repayments have started on schedule, and Roshan is in compliance (subject to waivers granted by ADB) with all loan covenants, including reporting requirements. Roshan has exceeded its growth targets since its launch on 27 July 2003 and has weathered a degree of recent market dislocation caused by vigorous competition (itself a key signal of the success of this sector of the Afghan economy), a situation that is now normalizing.

3. **Phase III—Substantial Unmet Demand.** Roshan has consistently maintained its position as the largest mobile telecom company in Afghanistan, with over 40% of the market share (about 12% more than its nearest competitor). The proposed phase III expansion aims at ensuring that mobile telecom services reach almost all semi-urban and major rural areas—achieving significant levels of population coverage, adding and upgrading network capacity, and enhancing economies of scale for more affordable mobile telecom services in the face of strong competition. Currently, Roshan's network covers<sup>4</sup> 17 million Afghans, about 54% of the population.<sup>5</sup> Financing will also support the deployment of new services such as the innovative mobile banking, M-Paisa<sup>6</sup>, and the use of green technology in the form of solar panels in place of diesel generators.

4. **Roshan's Request for Financing.** To finance this phase III expansion, Roshan had initially requested an additional aggregate debt funding of about \$105 million from ADB and other current and prospective senior lenders, together with additional funding from shareholders. The concept of this Project was cleared on 16 May 2008, and due diligence was carried out in

<sup>1</sup> Opening speech to the ADB 2008 Annual Meeting in Madrid.

<sup>2</sup> ADB. 2004. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan for the Roshan Cellular Telecommunications Project in the Islamic Republic of Afghanistan*. Manila.

<sup>3</sup> ADB. 2006. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan and Political Risk Guarantee for the Roshan Phase II Expansion Project in the Islamic Republic of Afghanistan*. Manila.

<sup>4</sup> Network coverage refers to the availability of signal and/or service in a certain area.

<sup>5</sup> The population of Afghanistan is 31.9 million. Source: Central Intelligence Agency. 2008. *The World Factbook*. Washington, DC (July 2007 estimate).

<sup>6</sup> Mobile technology platform that provides financial services for those without access to banking and aims to facilitate economic activity in the region.

Kabul, Afghanistan, from 26 to 28 May 2008. Additional meetings were held in Dubai, London, and Manila to coordinate the financing.

5. **Proven Development Impact.** Roshan's phase I expansion in 2004 was the first private sector intervention of its kind in recent Afghan history. The nation had not seen any significant private sector investment in almost 30 years because of its difficult political and security situation. Notwithstanding the challenges, over the past 4 years Roshan has become the largest single taxpayer in Afghanistan, accounting for about 6%–7% of domestically generated, non-donor, government revenue. It is considered one of the soundest private sector companies in Afghanistan, with the highest standards of corporate governance and the most profound impact on the lives of Afghans throughout the country and throughout society. As a result of its success, the telecom market in Afghanistan has become one of the most openly competitive sectors of the economy, receiving far more foreign direct investment than any other. The telecoms market is touted as one of the great successes of Afghanistan's economic liberalization and renaissance, and an example for the rest of the economy.

### III. BACKGROUND AND RATIONALE, SECTOR PERFORMANCE, ISSUES, AND OPPORTUNITIES

#### A. Telecommunications Services Sector in Afghanistan

6. **Leapfrogging into Mobile Telephony.** After more than two and a half decades of conflict, Afghanistan had no basic transport and communication infrastructure. However, the Afghanistan telecom market has grown at an unprecedented pace since Roshan's entry. In the telecoms market, 1 Afghan year is considered equivalent to as many as 10 years in other countries, since the rate of adoption has been so explosive and transformational. The less capital-intensive nature of mobile telephony, and the lower rollout complexity, has allowed the Afghanistan telecom market to leapfrog the conventional development stages of fixed line telephone systems.

7. **A Vital Element of Life.** Mobile telephony is regarded as the only viable means of providing reliable, nationwide communication capacity in Afghanistan. This is evidenced by almost universal dependence—including the foreign security and donor communities, the Government, and business—on the cellular network for the most basic operations. Recent service interruptions caused by Taliban insurgents, and the strong reaction to these interruptions by the affected communities, demonstrate how vital mobile telecommunications have become in the everyday lives of the Afghan people.

8. **Essential for Afghanistan's Development.** In a war torn country with 45% of the population under 15 years old, the need to gain knowledge, exchange ideas, and connect with others is vital for the nation's development. ADB-commissioned studies show that the economic benefits of telecommunications (particularly in rural areas) are broader, and benefit-cost ratios are higher, than indicated by usual project economic analyses.<sup>7</sup>

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<sup>7</sup> ADB. 1997. *Guidelines for the Economic Analysis of Telecommunications Projects*. Manila; and ADB. 1995. *Technical Assistance to Thailand for a Socioeconomic Impact Study of Rural Telecommunications*. Manila (TA 2381-THA). These studies conclude that the economic benefits of telecommunications are at least twice what subscribers pay for the service, and much higher for some user groups. Additional benefits are derived in education, employment, agriculture, environment, health, and safety.

9. **Mobile Telephony and its Development Impact.** The widely cited example of Bangladesh's GrameenPhone expansion financing<sup>8</sup> is worth repeating, as it has a similar profile and rationale to the Roshan phase III expansion with its focus on semi-urban and rural areas. The identified development impacts for the GrameenPhone financing were: (i) continued expansion of the telecommunication sector, which had large unmet demand and un-serviced geographical regions; (ii) the expanded role of small and medium-sized enterprise (SME) service providers, which are subcontractors of GrameenPhone; (iii) expansion of village pay telephones to un-serviced rural areas; and (iv) support for GrameenPhone's unique contributions to good governance in the Bangladesh telecommunications sector.

## B. Performance Indicators and Analysis

10. **Low Penetration.** Coverage has grown remarkably in the last 4 years, but it is still far from nationwide. Significant additional investment is required, particularly to reach the more dispersed and underserved segments of society. Afghanistan's penetration rate<sup>9</sup> is only a little over 12%. Compared to similar size markets (Table 1), Afghanistan has significant growth potential (e.g., the penetration rate in Kenya is 32%). Kenya's relatively high penetration rate, notwithstanding relatively low gross domestic product (GDP) per capita, has been boosted by an innovative mobile payment system called M-Pesa which was launched in March 2007 by Safaricom, Kenya's largest mobile operator and an affiliate of Vodafone. Vodafone is teaming up with Roshan introducing a similar product called M-Paisa in Afghanistan.

**Table 1: Penetration Rate of Similar Markets**

<b>Economy</b>	<b>Population (million)</b>	<b>&lt; Age 15 Years (%)</b>	<b>GDP Per Capita (\$)</b>	<b>Subscribers (million)</b>	<b>Operators</b>	<b>Penetration (%)</b>
Afghanistan	31.9	48	1,000	4.0	4	12.4
Yemen	22.4	45	1,010	4.1	3	18.2
Kenya	37.5	43	1,344	11.5	3	31.9
Tanzania	40.5	44	837	8.4	6	21.7

GDP = gross domestic product.

Sources: Roshan and Asian Development Bank estimates (2007 data).

## C. Analysis of Key Issues and Opportunities

### 1. Dynamic Market Environment

11. **Investment in the Afghan Mobile Telecom Market—Largest Revenue Generator.** To date, around \$1 billion has been invested in developing Afghanistan's mobile telecommunications network (Roshan has invested over \$320 million since its inception 4 years ago). As described in the Afghanistan National Development Strategy,<sup>10</sup> private sector development plays a key role in the reconstruction of Afghanistan. The rapid development of the telecommunications sector has acted as a prime example of how a relatively effective enabling environment can spur private sector development in Afghanistan. The sector has generated about 15%–20% of the Government's domestically generated revenues (not including the \$90 million generated in license fees).

<sup>8</sup> ADB. 2003. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to GrameenPhone Limited for the GrameenPhone Telecommunications Expansion Project in the People's Republic of Bangladesh*. Manila.

<sup>9</sup> Number of mobile phone subscribers against population.

<sup>10</sup> Islamic Republic of Afghanistan. 2008 *Afghanistan National Development Strategy, Private Sector Development*. Kabul

12. **Fast Growing Market—Still with Substantial Unmet Demand.** The Afghan mobile telecom market saw 55% growth in 2007 alone, reaching 4 million subscribers by the end of the year. However, about 45% of the population is yet to be covered, especially outside the main population areas. Of the 366 districts in Afghanistan, Roshan currently has the highest levels of coverage, reaching 211. All the urban districts are covered. The 155 remaining districts are mainly rural and require significant additional investment, particularly to reach the more dispersed and underserved segments of Afghan society. Moreover, there is significant potential for growth in the youth and female segments, which are being strongly targeted by Roshan.<sup>11</sup> (Appendix 2 provides a summary of the telecom market.)

13. **Significant Investment Requirements.** The Government forecasts that penetration will reach 35% by 2015.<sup>12</sup> The current penetration rate of 12.4% was achieved by investment of around \$1 billion in mobile networks. Based on these statistics, Roshan estimates that continued growth will require incremental investments in Afghanistan of about \$200 million per year as all operators continue to grow and expand into more costly rural areas.

14. **Competitive Landscape.** Given the demand for mobile telephones and the success of Roshan, the Government tendered two new licenses, and two new private cellular network operators (Areeba/Investcom and Etisalat) have entered the market. This has dramatically changed the competitive landscape to the benefit of consumers. Currently, the market is served by four global system for mobile communications (GSM) network operators (Table 2). After Afghan Wireless Communications Company (AWCC) (November 2002) and Roshan (January 2003), Areeba/Investcom (subsequently taken over by the South Africa-based MTN Group) obtained the third GSM license in September 2005 and launched operations in July 2006. United Arab Emirates (UAE)-based and state-owned Etisalat<sup>13</sup> obtained its license in May 2006 and launched in August 2007. Prepaid subscriptions, which constitute over 99% of the mobile phones in the Afghan market today, ensure low entry barriers although high rollout costs provide a relatively strong first-mover advantage.

**Table 2: Comparison**

Item	Roshan	AWCC	MTN/Areeba	Etisalat
License	January 2003	November 2001	September 2005	May 2006
License Fee	\$5 million	\$3.5 million	\$40 million	\$40 million
Commercial Launch	July 2003	April 2002	July 2006	August 2007
Covered Population	54%	46%	42%	16%
Penetration	6%	3.2%	3.5%	0.1%
Presence	33 provinces	33 provinces	25 provinces	11 provinces

AWCC = Afghan Wireless Communications Company

Source: Roshan. MTN quarterly report (August 2007); company websites (2007 data).

15. **Market Share.** Due to its better coverage, better quality of calls, price competitiveness, and capacity to deliver a wide range of services, Roshan leads the market with over 40% market share, equaling over 1.8 million subscribers (end of 2007). Roshan commands a 12%

<sup>11</sup> Roshan plans to introduce two new products, “youth and students package” and “women and family package”. The former provides SMS and internet on a handset with lower rates, and the latter is intended to promote freedom and independence but will be provided under a family bundle preprogrammed to make calls within the family as a start.

<sup>12</sup> Ministry of Communications. 2007. *Annual Report*. Kabul.

<sup>13</sup> The Ministry of Communications conducted a competitive bidding process for two national GSM licenses in 2005. Investcom and Watan Telecom, an Afghan telecommunications service provider, were awarded the licenses but Watan Telecom was unable to raise the license fee. Etisalat subsequently negotiated the acquisition of the fourth national GSM license in May 2006. There was considerable industry speculation that Etisalat had expressed an intention to purchase a stake in Afghan Telecom, the government-owned fixed-line and fixed-wireless operator.

market share lead over its nearest competitor, which is significant considering the following: (i) it is easier for newer entrants to set up communication towers as Roshan had paved the way; and (ii) Roshan has positioned itself as the quality telecommunications provider, not the cheapest product provider. Roshan's focus on the development and reconstruction of Afghanistan makes it the best positioned operator to continue to extend coverage beyond the major cities into rural areas with less population density and with less profit potential.

16. **Market Evolution.** Market growth in 2007 was driven by high demand, increased competition, and dramatic declines in both tariffs and SIM prices. The two new entrants came into the market with very aggressive strategies for market penetration that brought intense competition and eroded earnings for all operators. Subsequently, Etisalat announced in May that it will double its price. Such signs of market corrections are encouraging and the operators' ability to quickly respond to market dynamics are becoming increasingly important. Because of fierce competition, and operators aiming to achieve economies of scale, the price of the subscriber identity module (SIM) card has fallen since early 2003 from \$129 per SIM to as low as \$2 per SIM in early 2008. Further, the introduction of per second billing by MTN/Areeba and subsequently Roshan, has made users more price-sensitive and less loyal. More than a quarter of users have multiple SIMs,<sup>14</sup> making market share less relevant in gauging profitability between operators. Moreover, the rate of multiple SIM users in the market has increased significantly, shifting the battle to wallet share rather than merely market share. Roshan's share of revenue is about 5 percentage points higher than its market share at about 46%, indicating an even wider lead over its competitors. Moreover, with the comparative advantage of better market knowledge, Roshan is focused on maintaining market leadership. Value-added "killer applications" such as M-Paisa, which aims to capture more wallet share, are being launched to continue to drive market growth and ensure Roshan's leadership position.

## 2. Regulatory Environment

17. **Liberalization and Privatization Efforts by the Government.** Since late 2002, the Ministry of Communications (MOC) has largely succeeded in the implementation of an aggressive program of sector liberalization, reform, and legal and regulatory framework development. After AWCC<sup>15</sup> and Roshan, two GSM licenses were awarded in a short span of time (October 2005 and May 2006). The Arreba/Investcom and Etisalat licenses raised \$40 million each for the Government.

18. **Privatization of Afghan Telecom.** In a further move of liberalization, MOC recently commenced the process to dispose of an 80% shareholding in Afghan Telecom.<sup>16</sup> As the holder of a unified license, Afghan Telecom is permitted to offer its customers any range of services (voice, data, and 3G).<sup>17</sup> Fierce market competition has taken place since the entry of the last two participants.

19. **Implementation of the Telecom Law.** In December 2005, the Telecom Services Regulation Act of Afghanistan (Telecom Law) was enacted. It provided for the formal regulation

<sup>14</sup> Largely because of SIM price drops (75% in 2007), network, and coverage-related issues. Roshan offers three types of SIMs (business user, average user, and low-income grade user) while others only offer one type of SIM.

<sup>15</sup> Some 20% is owned by MOC.

<sup>16</sup> Afghan Telecom operates (i) a legacy fixed and digital fixed line network, which is estimated to have no more than 50,000–80,000 phone lines across the country; and (ii) a code division multiple access (CDMA) network, which may be operated on a mobile basis. It will own a fiber optic cable ring that will eventually link the main cities in Afghanistan. The completion of the ring, which is being built by Zhong Xing Telecommunication Equipment Company Limited on a turnkey basis, is delayed but is nonetheless expected to be completed in 2010–2011.

<sup>17</sup> Third generation mobile communication, which is capable of providing higher data transfer rates and services such as high-resolution video and multimedia services through spectral efficiency.

of the sector and codified the role and authority of ATRA, the quasi-independent sector regulator.<sup>18</sup> The Telecom Law, together with the Private Investment Law, 2005, and the Income Tax Law, 2005, offered a higher level of predictability.

20. **Telephony Operators Association.** In an effort to address sector-wide issues from an industry standpoint, Roshan spearheaded the creation of the Telephony Operators Association<sup>19</sup> among the operators earlier this year. Parliament is currently reviewing the law. Licensees have jointly submitted proposed amendments to the law and have held several meetings with the parliamentary subcommittees responsible for telecommunications to lobby for the amendments. Roshan has worked hard to develop a close working relationship with the parliamentary telecommunications subcommittees. Strategically, the subcommittees are an effective check on potentially arbitrary decision making and actions within ATRA and MOC—this is particularly important given the lack of an effective ability to appeal ATRA decisions, although some developments are made by creating a forum within DAB to address dispute resolutions. ADB is assisting through dialogue with the Government on many of these sector-wide issues and will continue to press for fair and independent regulation and tax treatment. Generally, issues are being resolved and progress is being made, but guidance needs to be provided consistently.

## D. ADB Operations in the Country and Sector

### 1. In Afghanistan

21. **ADB Support.** Since the resumption of its activities in Afghanistan in 2002 through to the end of 2007, ADB had approved nearly \$1.3 billion in loans, grants, technical assistance, and private sector investments to support Afghanistan's development; and is administering a further \$133.4 million in funding agency-financed or cost-shared activities, including assistance through the Japan Fund for Poverty Reduction. Appendix 3 provides further detail.

22. **ADB Activities.** ADB funds have helped rebuild important road and power infrastructure and irrigation systems in northern Afghanistan, and have promoted agricultural growth and poverty reduction by contributing to the development of a sound policy framework and efficient sector institutions. At the 2006 London Conference on Afghanistan, ADB pledged to consider assistance of about \$1 billion over 2006–2010. ADB's projects are on track, although contract awards and disbursements are lagging because of weak government capacity and poor security. At the 2008 Paris International Conference in Support of Afghanistan, ADB pledged up to \$1.3 billion assistance over the 2008–2012 ADF X period, subject to overall availability of ADF X funding and country performance. This assistance would include loan and equity investments of up to \$100 million in partnership with local and foreign investors, and guarantees of about \$100 million to catalyze private investments.

### 2. ADB's Sector Strategy

23. **Sector Strategy.** While more modest than that of other multilateral and bilateral institutions, ADB's role in the information and communication sector is to (i) support the private sector, which is expected to lead in developing information technology (IT) networks; (ii) encourage governments to create a predictable, transparent, and nondiscriminatory policy and regulatory environment; and (iii) ensure that IT-related rules and practices are responsive to

<sup>18</sup> Prior to enactment of the law, an ad hoc body—the telecommunications regulatory board—had been established by presidential decree to regulate the sector.

<sup>19</sup> The association is being registered with the Ministry of Justice prior to a formal press announcement.

the emerging revolutionary changes in the way people conduct business using IT.<sup>20</sup> To date, ADB has made private sector loans to telecommunications companies in Afghanistan, Bangladesh, India and the Philippines. Appendix 4 provides further details.

## E. Corporate Overview of Roshan

### 1. Corporate History

24. **Remarkable Track Record.** Roshan has had significant commercial success as market leader. It easily overtook the first entrant and has climbed to and remained the leader by capitalizing on its comparative advantages of highly qualified staff and in-depth understanding of the market, a reputation for quality of service, greater national coverage, innovative marketing, and being a first mover in new business and services. Roshan is expected to continue to be the frontrunner in the Afghan telecom market, with one of the most recognized brand names in the country. It has outperformed its own expansion plans consistently, reaching subscriber targets much faster than anticipated. Table 3 gives an overview of Roshan's corporate development.

**Table 3: Roshan Summary Operational History**

Date	Event
Jan 2003	Telecom Development Company Afghanistan established
Jan 2003	Awarded a 15-year nationwide GSM license following an international license tender
Jul 2003	Launched commercial services in Kabul
Dec 2003	Reported 49,779 subscribers
Jan 2004	Offered commercial services in Herat, Jalalabad, Kunduz, Mazar-e-Sharif
Dec 2004	Reported 313,192 subscribers across 25 cities
Jun 2005	Reached 500,000 subscribers
Dec 2005	Reported 716,832 subscribers across 42 cities
Oct 2006	Reached 1,000,000 subscribers
Dec 2006	1,066,676 subscribers in 145 cities and 31 provinces across the country
Dec 2007	1,644,456 subscribers in 207 cities and 32 provinces across the country

GSM = global system for mobile communications.  
Source: Roshan.

### 2. Ownership and Management

25. **Aga Khan Fund for Economic Development—Aga Khan Development Network.** The majority shareholder (51% stake) is AKFED, the economic development arm of the Aga Khan Development Network (AKDN), a group of private, nondenominational development agencies seeking to improve opportunities and living conditions in specific regions of the developing world, especially Africa and Asia. AKFED also owns a minority in a GSM mobile communications venture in neighboring Tajikistan. On 30 January 2008, AKDN and ADB signed an agreement aimed at expanding the partnership between the two institutions with a private sector focus. The AKDN—ADB agreement stresses the need “to find ways to undertake investments to connect the poor to the opportunities of growth and to connect services to the poor emanating from national and regional growth benefits”<sup>21</sup>. This financing will be the first

<sup>20</sup> ADB. 2000. *Asian Development Outlook 2000 Update*. Box 1: Okinawa Charter on the Global Information Society. Manila (p. 59).

<sup>21</sup> ADB and Aga Khan Development Network. 2008. Asian Development Bank and Aga Khan Development Network Strengthen Partnership. News Release. 30 January.

transaction with AKDN-related entities after the memorandum of understanding has been signed.

26. **Monaco Telecom International and TeliaSonera.** MTI, indirectly controlled by Cable & Wireless PLC, holds 36.75%, and TeliaSonera UTA owns the remaining 12.25%, which was acquired in July 2007 from MCT Corporation (MCT), a US-based provider of mobile telecommunications to Central Asia and the Russian Federation. Both these shareholders have extensive telecommunications expertise that they are extending to Roshan and this essentially represents a further strengthening in the sponsor profile since phases I and II. Appendix 5 contains more details on the shareholders.

27. **Core Management Team.** The core management team has been in place since commencement of operations. ADB has worked closely with Roshan's management over the last 4 years and regards it as a highly competent and value-adding partner. Roshan focused heavily on strengthening the senior management in 2007, adding a new chief technology officer and chief customer officer in Q4 of 2007 and a new chief marketing officer in early 2008, all of whom have extensive experience in growing GSM operations from the 1 million subscriber to 5 million subscriber level, which is the growth Roshan is preparing for. Appendix 6 gives brief biographies of Roshan's management team.

### 3. Strategy Implementation

28. **Principles for Comparative Advantage.** Roshan's strategy implementation builds on a number of principles through which Roshan derives significant competitive advantage. The key thrusts are (i) rapid network rollout and extensive coverage, (ii) premium quality provider, (iii) innovative marketing approach, (iv) strong shareholder support, and (v) social development. Appendix 6 also describes Roshan's strategies.

### 4. Comparative Advantage

29. **Competitor Profiles.** Afghanistan has four mobile telecom service providers: Roshan, AWCC, MTN (previously Areeba), and Etisalat are the GSM operators. Separately, Afghan Telecom is a fixed line and code division multiple access (CDMA) player. Three local fixed service provider licenses have been issued for regional players in rural areas. Only one of these—Wasel Telecom—which operates in rural Balkh, a northern province bordering Uzbekistan, is currently active and has had limited success to date.

30. **Competition.** The Afghan market has become extremely competitive in the last 18–24 months with the entrance of the third and fourth GSM operators. Virtually no other market in the world today has had four operators when market penetration was only around 10%. As a result of the increased competition, which has caused significant multiple-SIM usage (now at about 30%), Roshan has shifted its strategy to focus on revenue share and share of wallet in addition to simply measuring market share.

31. **Roshan's Comparative Advantage.** Roshan's strengths will enable it to counter competitive threats. It has the following competitive advantages:

- (i) high-quality network installed,
- (ii) widest coverage,
- (iii) strong market position,
- (iv) established distribution network,
- (v) regional presence,
- (vi) seasoned management and staff with Afghan operations experience, and

(vii) an established name with by far the strongest brand awareness in Afghanistan.

32. **Quality and Coverage.** Roshan is focused on its reputation for having a high level of service, and will continue to focus on overall network quality and geographic coverage and improve its international call quality via direct interconnections and international fiber-optic links. Roshan's technology upgrades will enable it to continue to provide premium quality service to its subscribers. Roshan's social program is also seen as a key brand image differentiator.

## 5. Social Impact and Program

33. **Largest Social Impact.** Since its commercial launch in July 2003, Roshan has built a national mobile telephony network used by about 1.9 million Afghan subscribers across 211 districts in 33 provinces throughout Afghanistan. It indirectly employs close to 25,000 Afghans through its network of contractors, distributors, and resellers and support businesses. It is also the largest private employer, with some 940 staff members, and its total investments in Afghanistan exceed \$330 million. As part of its core commercial operations, Roshan provides English-language, IT, and GSM technology courses, as well as general leadership and management courses to its staff and dealers.

34. **Largest Single Taxpayer.** Roshan has paid some \$107 million in taxes and government fees since its start in 2003, and is projecting payment of some \$45 million in 2008. Its contributions make up some 6% of Afghanistan's total government budget, making it by far the country's largest taxpayer.<sup>22</sup>

35. **Largest Community Impact.** In addition to its core commercial operations, which bring inherent social benefits, Roshan has a strong market reputation and brand recognition thanks to its social development efforts. Roshan (based on its AKFED roots) has contributed significantly to the development of Afghanistan through a wide array of social programs. Roshan devotes some 1% of its revenue to funding such activities. In 2006, Roshan's board approved the formal creation of the social programs function. Social activities are focused in the areas of empowerment (a telemedicine program that provides medical services utilizing telephony; establishment of women's public call offices (PCOs); school construction; and distribution of educational toys and the \$100 laptop computer—Roshan is the official distributor of the "one laptop per child" initiative for Afghanistan) and philanthropy (soup kitchens providing 33,000 meals per month; water wells catering up to 3,000 families; educational sponsorship supporting 146 children; and welfare funds supporting 20 heart surgeries are examples). Moreover, Roshan involves its partners in its Social development activities, increasing the scope and reach of its projects. Further description of Roshan's social programs is in Appendix 7. The summary poverty reduction and social strategy is in Appendix 8.

## IV. THE PROPOSED PROJECT

### A. Project Description

36. **Key Features.** The main purpose of the phase III financing is to expand Roshan's network, both through new coverage in semi-urban and economically underserved rural areas, providing high-quality network coverage and telecommunications capacity to these areas, and by extending the network and adding density<sup>23</sup> to existing areas. The expanded network will

<sup>22</sup> A percentage of Roshan's revenues is reinvested by AKFED into social and economic development projects implemented by AKDN in Afghanistan.

<sup>23</sup> Density refers to connectivity within a specific region.

enable Roshan to continue with the rollout of PCOs as well as to extend its new mobile money transfer product, M-Paisa, nationwide. Moreover, technology upgrades and replacements that allow for a higher quality, more cost-efficient network will enable Roshan to drive down prices and provide additional functionality to Afghan subscribers.

77. **Semi-Urban and Rural Expansion.** Market penetration is projected to reach 20% by the end of 2008. However, current penetration is concentrated mainly in urban areas, and penetration in semi-urban and rural areas remains quite low. The phase III expansion Project aims to expand the network, deploying a synchronous digital hierarchy fiber-optic microwave ring, implementing alternative power solutions such as solar power, increasing capacity in existing cities, and enhancing network redundancy.

37. **Backbone.** Roshan started to build out a synchronous digital hierarchy fiber-optic microwave backbone in 2005 to reduce the dependency on very small aperture satellite terminal (VSAT). The move from VSAT enables increased capacity to handle the high subscriber volume projected for the plan, reduces operating expenses by reducing dependency on expensive VSAT technology, and simplifies network maintenance—enabling Roshan to drive down prices for Afghan subscribers, while allowing significant improvements in quality and decreased latency.<sup>24</sup>

38. **Regional Integration.** Currently, Roshan is connected with Pakistan, Tajikistan, and UAE via microwave links for interconnecting traffic between Roshan subscribers and international operators.

39. **M-Paisa—Key Features.** Another key feature of Roshan’s reengineering is its full launch of M-Paisa. This is a powerful product in a country where more people own mobile phones than have bank accounts—about 97% of the Afghan population does not have access to traditional banking infrastructure. M-Paisa will permit individuals to send money to another mobile user (including non-Roshan customers), receive money from another Roshan mobile customer, receive and repay loans from microfinance institutions, purchase Roshan airtime, receive and disburse salaries, and pay for goods and services. Currently, there are no other competitive mobile money transfer products in the Afghan market. The M-Paisa product will bring the following benefits to Roshan: (i) increase customer loyalty through a new and innovative product; (ii) contribute to the prime SIM effect in a multiple-SIM environment—a product such as M-Paisa can incentivize users to keep their Roshan SIM in their phones; (iii) increase SMS usage; and (iv) decrease churn<sup>25</sup>—experience from M-Pesa in Kenya (para. 10) shows that it was a strong contributor to churn reduction.

## B. Outcome

40. **Expected Results.** Expanded network coverage is the main expected outcome. The following key targets are anticipated by 2010:

- (i) **Network subscriber base.**
- (ii) **Full Coverage in Provincial capitals**Number of districts.
- (iii) **Base transceiver station Growth**
- (iv) **Public call offices.** Increase in telecommunications access for those who cannot afford mobiles by increasing the number of PCOs.
- (v) **Cross-border interconnections.**

<sup>24</sup> Latency refers to delay or lag time in sending data and/or voice from one mobile phone to another.

<sup>25</sup> Churn occurs when subscribers are deactivated from the telecommunication network equipment.

- (vi) **M-Paisa. Introduce a mobile money transfer** service for the people who do not have bank accounts

### C. Development Impacts

41. **Pro-Poor Economic Growth.** The Project aims to promote inclusive and pro-poor economic growth and development through improved and widespread telephone connectivity, especially in semi-urban and rural areas. The Project will cover over 25 million people with 5.5 million subscribers, 40% of which will be in semi-urban and rural areas. It will contribute in achieving the national objective of an overall penetration level of 35% by 2015 from the current level of 12.4%.

42. **Impact, Outcome, and Output.** The development impact of Afghanistan's telecommunications industry is widely recognized. Roshan is considered one of the soundest private sector companies in Afghanistan, contributing substantially to the Government's tax revenue income. Roshan's phase III expansion will further the development impacts witnessed in the earlier phases, with expanded economic growth in semi-urban and rural areas. The Project will cover 60 new districts, double the number of BTSs to 1,490 with 50% of these in new districts, and increase telecommunications access for those who cannot afford mobiles by tripling the number of PCOs to 6,850. Mobile telecommunications will improve the delivery of services such as health care, education, and security throughout the country. As was the case for past expansions, the third phase will provide direct training, jobs, and business opportunities in underdeveloped areas to staff, dealers, and subcontractors. Further, the M-Paisa initiative will add a new facet to the development impact by providing mobile money transfers and means for extending microcredit in a country where 97% of the population does not have access to banking. The M-Paisa service is expected to target 750,000 Afghans. Regional integration will improve through new interconnectivity initiatives with the neighboring countries. The success of this Project is important in further encouraging a nascent private sector and hesitant foreign direct investment to Afghanistan. The design and monitoring framework is in Appendix 1.

### D. Development Effectiveness

43. **Private Sector Development.** The development effectiveness of the Project will be assessed in terms of private sector development, business success, and economic sustainability in accordance with the guidelines for implementing the good practice standards for evaluation of private sector investment operations prepared by the evaluation cooperation group of multilateral development banks.<sup>26</sup> Implementation of the Project will increase Roshan's capacity to implement and operate large-scale projects and to be a market leader in providing good quality, competitively priced telecommunication services. In the telecommunications sector, it will set high benchmarks and standards, promote competition, and contribute to further developing the regulatory capacity. At a broader level, success of the Project will have a strong demonstration effect and establish the viable operation of private sector operations in Afghanistan. This, in turn, will increase foreign direct investment in other sectors in the economy. The Project is financially and economically sustainable and will have environmental benefits by reducing dependence on fossil fuels and promoting the application of renewable energy options. The Project's development effectiveness framework is in Appendix 1.

<sup>26</sup> Multilateral Development Banks, Evaluation Cooperation Group, Working Group on Private Sector Evaluation (WGPSE). 2006. *MDB-ECG Good-Practice Standards for Evaluation of Private Sector Investment Operations*.

## E. Project Agreements and Arrangements

44. **Operating License.** The principal agreement underpinning Roshan's operations is the operating license, purchased in January 2003 for \$5 million. The license gives Roshan nonexclusive right to provide GSM mobile telephone services throughout Afghanistan as well as an international gateway. The main terms of the license agreement are (i) validity through January 2018, renewable for an additional 10 years; (ii) specific radio frequency assignment granted; (iii) approval granted to import equipment; (iv) ability to set and adjust tariffs with prior public notice (with the exception of those deemed to have significant market power, which would have to get tariffs approved by the regulator); and (v) provision for interconnection with other operators covering both domestic and international traffic.

45. **Other Arrangements.** Roshan has signed agreements with Afghan Telecom, AWCC, MTN/Areeba, and Etisalat that are based on international market practices for interconnection. The M-Paisa product will be operated out of Roshan's wholly owned subsidiary, which will enter into a managed service management agreement with Vodafone. Each party will allocate internal operating costs to the M-Paisa subsidiary and share equally in the net profit generated.

## F. Project Financing Plan

46. **Debt Financing Plan.** Roshan aims to raise the \$85 million in new debt, reduced from the initially contemplated \$105 million as a result of the increase in non-external financings of \$90 million from \$70 million. An appropriate gearing ratio will be maintained for the company. While still under discussion, financing participants are expected to be similar to the phase II financing (subject to market appetite and recognizing the very limited market interest in corporate financing in Afghanistan). The French development company Société de Promotion et de Participation pour la Coopération Economique (PROPARCO) is expected to participate. The German Investment and Development Company (DEG) is likely to participate.

## G. Economic Analysis

47. The positive correlation between teledensity<sup>27</sup> and economic growth has been well documented for a considerable period through a number of empirical studies. In a typical developing country, an increase in mobile penetration of 10% boosts GDP growth by around 1 percentage point.<sup>28</sup> In Afghanistan, this impact on growth would be larger given the absence of other means of communications and the nonexistent teledensity outside larger urban areas. Significant opportunities exist for accelerating economic growth through additional investments in the telecommunication sector.

48. The Project involves setting up BTSs and PCOs in semi-urban and rural areas, with a view to increasing coverage of mobile services in areas that are currently experiencing low or no connectivity. The Project will further facilitate extension of microcredit services to people through the cellular network in these remote areas, including non-Roshan subscribers. This will result in improved information flow, broadened markets for goods and services, enhanced economic activities of SMEs, substitute for physical travel and transport, and reduced transaction costs.

49. The Project also reduces the costs of mobile services, improves the quality of services, and increases regional connectivity. Lower costs and better quality will translate to lower tariffs, an increase in affordability, and more usage of mobile services. This and the related microcredit

<sup>27</sup> Teledensity is defined as the number of telephones per 100 people.

<sup>28</sup> *The Economist*. 2008. Mobile Telecoms Halfway There. 31 May.

services to be provided by the Project will have a multiplier effect on the economic benefits from the Project. In the project design, the energy requirements of 15% of its operations will be based on solar energy—thereby reducing consumption of diesel and the resultant emissions of greenhouse gases. The scale of operations will generate employment for 6,500 people directly and indirectly. The Project will therefore yield multiple economic and environmental benefits to the country, although such benefits may not be precisely measurable through quantitative economic analysis.

#### **H. Accounting, Auditing, and Reporting**

50. Roshan's annual accounts are audited by KPMG Afghanistan. As a private company, Roshan is not obliged to disclose its financial statements to the public. Roshan follows standard ADB reporting requirements for its existing loan, and will continue to do so for this loan.

#### **I. Project Performance Monitoring and Evaluation**

51. As required under the existing loan, Roshan will continue to provide quarterly expansion reports, detailing the growth in subscribers, BTSs, and network coverage rollout.<sup>29</sup> ADB will monitor the expansion vis-à-vis the business plan. Evaluation of the Project will be based on three levels: (i) the success of the Project itself, (ii) development of the telecommunications sector in general, and (iii) private sector development. Appendix 1 contains the development impact and performance monitoring framework, including relevant performance indicators.

#### **J. Project Review**

52. The Project will be reviewed regularly in accordance with standard ADB portfolio management and project evaluation practice, in conjunction with two previous phase financings.

#### **K. Environmental and Other Safeguard Policy Aspects**

53. The environment category for Roshan phase III expansion project is C, following the two earlier project phases that were assigned the same classification. The expansion program will involve construction of over 700 additional BTSs, built both on buildings and ground-based sites with an area of about 144 square meters. About 5,000 PCOs will be established in existing shops and facilities. Because of the limited construction activities associated with the Project, there will be no negative environmental impact.

54. The two previous phases did not entail any involuntary resettlement or indigenous people impacts. The phase III expansion project is category C, as there are no requirements for involuntary resettlement and no specific impacts on indigenous peoples. All sites will be leased, as Roshan does not purchase land. Roshan's site selection criteria are defined well—BTSs are on leased unused lands in urban areas and sparsely populated unproductive desert lands in rural areas. No sites will be selected that (i) are adjacent to or within any environmentally sensitive areas and sites of cultural and historical importance, (ii) require relocation of housing, and (iii) displace non-titled informal settlers or economic users of the land. Generally, Roshan prefers to lease vacant government-owned land. If private property is leased, the site selection will depend on the property owners' willingness to lease the land and accept a negotiated rental price at prevailing market rates.

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<sup>29</sup> Linklaters. 2005. *Common Terms Agreement Clause 7.11. Information Undertaking*.

55. The environmental and social due diligence assessments has confirmed that procedures on site selection, BTS construction, and waste management have been satisfactorily implemented by Roshan in the earlier project phases. The company has also designated specific offices departments (e.g., facilities, deployment, security and human resource departments) responsible for the workplace and employees' health and safety. Roshan has a corporate social responsibility program, with about 1% of its revenue allocated to funding social activities focused on three key areas—philanthropy, social business development opportunities, and empowerment initiatives. Its social program interventions include provision of opportunities for development of SMEs, educational sponsorships, welfare funds, telemedicine programs, water wells, soup kitchens, women's PCOs, e-learning centers, schools and children's playgrounds, among others.

## V. THE PROPOSED ADB ASSISTANCE

### A. Overview

56. **Development Impact—Track Record.** ADB was first approached by AKFED, Roshan's majority shareholder, and Roshan in early 2004 for financing of Roshan's phase I network expansion. The project proved successful and was followed with the phase II expansion, approved by ADB's Board of Directors in June 2007. The justifications for assisting the phase III Project continue to be manifold. The developmental impact of mobile telephony, the technical and financial sustainability of the business model, the economic and social benefits of the Project including environmental sustainability, with the unmet need for medium-term finance from the commercial market, its role in advancing regulatory reform, and its full compatibility with ADB's country strategy and program update,<sup>30</sup> are all compelling.

57. **Rationale for Supporting the Phase III—Rural Development.** Roshan requires \$85 million in debt, reduced from its original \$105 million, for its business plan to be fully funded. In the dynamic Afghan telecom market, and with the importance of quickly spurring reconstruction efforts in Afghanistan, the proposed additional financing has very significant development impacts. It will help address unmet demand, especially in semi-urban and rural areas where reconstruction efforts have been most limited. Without the phase III funding, not only Roshan's pace of expansion but also the country's pace of reconstruction will be impacted. There are no commercial sources of financing that can substitute ADB funding.

### B. Nature and Amount

58. ADB's proposed financial assistance is expected to be a term loan of up to \$60 million without government guarantee.

### C. Main Terms and Conditions

59. The loan terms will be largely similar to the phase II financing, with subordination of related party transactions as needed. The phase III financing will take into account (to the extent reasonable and not compromising the position of the senior lenders) Roshan's debt service track record to date, its evolution as a leading corporation in Afghanistan, and dynamic market conditions of the still nascent telecom market. After the expansion financing, Roshan will continue to have a conservative gearing ratio. ADB's fees and premium for this political risk cover will be market-driven and as determined by ADB's Pricing and Credit Enhancement Committee.

<sup>30</sup> ADB. 2005. *Country Strategy and Program Update (2006–2008): Afghanistan*. Manila.

## D. Value-Added by ADB

60. ADB will add value through the following measures:

- (i) **Catalyzing investment.** Without secure, medium-term financing, mobile network expansion in Afghanistan will be constrained. This will hinder the development of a thriving sector that is the main driver of private sector development in Afghanistan. There is no functioning local debt market, and offshore commercial and export credit debt sources are largely not interested in extending uncovered financing to businesses in Afghanistan. However, ADB's involvement can act as a catalyst, as it did in the previous expansion financings, to encourage other lenders to participate in the phase III financing.
- (ii) **Promote private sector development.** The demonstration effect of the continued support to a well-capitalized private sector-led, Afghan reconstruction effort success story (of which there are not many) will encourage entrepreneurs and financial investors to consider investments in key sectors in Afghanistan. It also assists the Government in identifying the regulatory and legislative areas that need improvement in promoting much-needed private sector development. The benefits of well-regulated market competition also provide important examples for other areas of the economy.
- (iii) **Dialogue with the Government.** ADB adds value in engaging with the Government and other stakeholders, and raising issues perceived as impediments to growth of the sector and the economy.
- (iv) **Cooperation.** Strengthening the cooperation with Roshan and its shareholders—AKFED (noting the recently signed memorandum of understanding with AKDN/AKFED), MCT, and Teliasonera—enables further cooperation in the telecom sphere in other parts of Central Asia where these partners are also active.

## E. Link to Country Strategy and Program

61. The Project is in line with ADB's country strategy and program update 2006–2008 and the Government's strategic intentions. ADB's approach to reconstruction of Afghanistan is (i) building capacity, (ii) establishing appropriate policy and institutional frameworks, and (iii) rehabilitating essential infrastructure. The Project, which aims to expand the mobile communications network nationwide, is anchored in the third point. The telecommunication sector has led private sector development of Afghanistan and is helping build capacity and establish policy and institutional frameworks to promote further economic growth.

62. The phase III Project's focus on expanding into semi-urban and rural areas further supports inclusive economic growth, "reducing rising inequalities in incomes in different regions as well as gaps between urban and rural areas". Regional integration via interconnection agreements with operators in neighboring countries is also in line with the thrust of the country strategy and program update. Further, the update states explicitly that no change is anticipated in ADB's engagement in the telecommunications sector (via the existing loan to Roshan, and also through ADB's membership in the consultative group for energy, mining, and telecommunications) as "ADB's...private sector support to the...telecommunications sectors..." is "highly appreciated" by the Government.

63. **No Negative Impact.** Roshan's construction works have virtually no negative impact on the environment. The environmental category of the phase I and II projects was C, and will remain C for phase III. There will be minimal cable construction and masts will be located on existing buildings or in open fields. Neither the original construction nor the expansion will result in any resettlement, and the Project will be classified resettlement category C. The Project is not foreseen to have any negative impact on indigenous peoples, and is consequently classified category C. All categorizations remain unchanged from phases I and II.

#### F. Investment Limits

64. The proposed investment, ADB's seventh nonsovereign investment in Afghanistan, would, if approved by the Board, represent 1.1% of ADB's total expected nonsovereign exposure,<sup>31</sup> and increase ADB's nonsovereign exposure (i) in Afghanistan from 1.6% to 2.7% total exposure, and (ii) in the telecommunications and communications sector from 4.3% to 5.4% total exposure. ADB's exposure to Roshan would increase from \$63.8 million to (up to) \$123.8 million. Outstanding loans of \$63.8 million represents 24.6% of Roshan's total assets as at 2007. Based on Roshan's financing plan, ADB's exposure may exceed 25% of total assets both before and at the time the ADB loan has been fully disbursed should operational cashflows be lower than anticipated, or loans from other lenders are disbursed later than expected. Management will therefore seek a waiver from the Board with respect to the single exposure limit under ADB's policy on prudential limits,<sup>32</sup> ADB's Risk Management Unit (RMU) has noted that no new shareholder equity has been committed by Roshan's owners, and accordingly, that ADB's exposure may exceed 25% of total capitalization if losses continue. RMU supports the request for a waiver based on Roshan's strong franchise and market position, a well-established relation with the majority owner and a reasonable business plan. The proposed investment is within approved aggregate, country, and industry exposure limits for ADB's nonsovereign operations.

#### G. Anticorruption Policy

65. Roshan has been advised of ADB's *Anticorruption Policy* (1998, as amended to date) and *Combating Money Laundering and the Financing of Terrorism Policy* (2003). Consistent with its commitment to good governance, accountability, and transparency, ADB's current investment documentation with Roshan requires Roshan to institute, maintain, and comply with internal procedures and controls following international best practice standards for the purpose of preventing corruption or money laundering activities or the financing of terrorism, and covenant with ADB to refrain from engaging in such activities. The investment documentation between ADB and Roshan will further allow ADB to investigate any violation or potential violation of these undertakings. M-Paisa is regulated under DAB as a money service provider and its anti-money-laundering procedures have been approved by DAB.

### VI. ASSURANCES

66. **No-Objection Letter.** Consistent with the provisions of ADB's Charter, ADB will obtain a no-objection letter from the Government with respect to the proposed loan before any funding under the loan is disbursed.

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<sup>31</sup> Expected nonsovereign exposure is defined as Board-approved and effective transactions (outstanding + undisbursed commitments) plus Board-approved but not yet effective transactions. An amount is considered committed when there are signed legal agreements. Total exposures are as of 2 June 2008.

<sup>32</sup> ADB. 2007. Doc. R54-2007. *Review of Prudential Exposure Limits for Nonsovereign Operations*. Manila. 30 March.

67. **Documentation.** ADB will enter into suitable documentation, in form and substance satisfactory to ADB, following approval (if obtained) of the proposed financing by the Board of Directors.

## VII. RECOMMENDATION

68. I am satisfied that the proposed loan and political risk guarantee (PRG) would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve (i) the loan of up to \$60,000,000 to the Telecom Development Company Afghanistan Limited (Roshan) for the Roshan Expansion Project (Phase III) in the Islamic Republic of Afghanistan from ADB's ordinary capital resources, with a term of up to 7 years, including a grace period of 2.5 years; and the PRG in a principal amount of up to \$10,000,000 plus interest to cover the DEG loan facility, in each case with such other terms and conditions as are substantially in accordance with those set forth in this report and recommendation presented to the Board; and (ii) a waiver of the single exposure limit as specified in paragraph 64.

Liqun Jin  
Vice President

3 July 2008

## DESIGN AND MONITORING AND DEVELOPMENT EFFECTIVENESS FRAMEWORKS

**Table A1.1: Design and Monitoring Framework**

<b>Design Summary</b>
<p><b>Impact</b></p> <ul style="list-style-type: none"> <li>• Pro-poor and inclusive economic growth and development through improved telephone connectivity, especially in remote semi-urban and rural areas</li> </ul>
<p><b>Outcome</b></p> <ul style="list-style-type: none"> <li>• Regional integration</li> <li>• Improved and enhanced business climate through wider coverage and better quality telecommunication services</li> <li>• Promotion of local industry and commerce through provision of microcredit and mobile banking facilities for remote areas without access to banking facilities</li> </ul>
<p><b>Outputs</b></p> <ul style="list-style-type: none"> <li>• Wider access of telecommunication services, especially for the poor</li> <li>• Lower cost, better quality telecommunication services</li> <li>• Use of solar photovoltaic panels for energy supply</li> <li>• Direct and indirect employment opportunities created</li> </ul>

ADB = Asian Development Bank, ATRA = Afghanistan Telecommunications Regulatory Authority, BTS = base transceiver station, MOC = Ministry of Communications, PCO = public call office, UAE = United Arab Emirates.

Table A1.2: Development Effectiveness Framework

Objective	Impact	Performance Targets	Measurement
<b>Private Sector Development</b>	<p><b>Project Company Impact</b></p> <ul style="list-style-type: none"> <li>• Increases the company's capacity to execute and manage large-scale projects under difficult circumstances</li> <li>• Enables Roshan to capture untapped market and continue to be the market leader</li> </ul> <p><b>Beyond Company Impact</b></p> <ul style="list-style-type: none"> <li>• Supports development of technical and operational skills to manage and operate telecommunication systems in Afghanistan</li> <li>• Demonstrates the viability of private sector operations in the country</li> <li>• Demonstrates the effectiveness of the regulatory environment</li> <li>• Role model for general corporate governance and management</li> </ul>	<ul style="list-style-type: none"> <li>• Project is implemented on time and operates successfully</li> <li>• Roshan has a 35% share in the telecommunications sector in the long term (beyond 2014)</li> <li>• Increased private sector participation in the sector and overall in the economy</li> <li>• Increased inflow of foreign direct investment</li> <li>• Improvement in the functioning of ATRA and extension of regulatory regimes to other sectors</li> <li>• Increase in number of registered enterprises</li> </ul>	<ul style="list-style-type: none"> <li>• Roshan's operating and financial performance reports</li> <li>• Statistics and information disclosed by ATRA and national statistics</li> </ul>
<b>Business Success</b>	<ul style="list-style-type: none"> <li>• Financially profitable and sustainable operations</li> </ul>	<ul style="list-style-type: none"> <li>• Timely repayment of debt</li> <li>• Satisfactory financial internal rate of return (greater than weighted average cost of capital)</li> </ul>	<ul style="list-style-type: none"> <li>• Financial internal rate of return</li> <li>• Roshan financial reports</li> </ul>
<b>Economic Sustainability</b>	<ul style="list-style-type: none"> <li>• Contributes to economic growth by expanding coverage of and access to mobile services in rural and semi-urban areas in remote and war-affected areas</li> </ul>	<ul style="list-style-type: none"> <li>• Economic internal rate of return greater than 12%</li> <li>• Increase in teledensity</li> </ul>	<ul style="list-style-type: none"> <li>• Economic rate of return</li> <li>• Declining trend in tariffs for telecommunication</li> </ul>

Objective	Impact	Performance Targets	Measurement
	<ul style="list-style-type: none"> <li>• Increased affordability by lowering operating costs</li> <li>• Improved quality of telecom services</li>   <li>• Access to microcredit for people in remote and rural areas, leading to development of local enterprise and employment generation</li> <li>• Reduction in fossil energy use and lower greenhouse gas emissions</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in average use per customer caused by better quality of services and competitive tariffs</li> <li>• Amount of microcredit generated through the network</li> <li>• Establishment of small and medium-sized enterprises</li> <li>• Diesel use replaced by solar power</li> </ul>	<ul style="list-style-type: none"> <li>• Report on quality of services by the regulator (ATRA)</li> <li>• National statistics</li> </ul>

Teledensity is defined as the number of telephones per 100 people.

ATRA = Afghanistan Telecommunications Regulatory Authority.

## TELECOMMUNICATIONS SECTOR IN AFGHANISTAN<sup>33</sup>

### A. Introduction

1. In November 2002, 1 year following the fall of the Taliban, mobile penetration in Afghanistan was estimated at roughly 0.01%, one of the lowest in the world. The Ministry of Communications (MOC) reported only 33,000 lines in service in the country's major cities, while lines in provincial and rural areas had not been considered as so few were working. As a result of a complete lack of investment in fixed-line telephony since the Soviet occupation in 1979, Afghanistan's existing infrastructure was either neglected through lack of funding or damaged in the armed conflict that spanned nearly 26 years. The capital, Kabul, was estimated to have just 20,150 fixed lines in the late 1990s, serving over 2 million people, with most calls dialed being either dropped or never connected.

2. In an investment climate survey in 2005,<sup>34</sup> most of the surveyed firms mentioned telecommunications as a major or severe problem. Afghanistan's mobile penetration<sup>35</sup> in 2007 is currently estimated to be about 12%.

### B. Sector Policy and Regulatory Environment

3. The Law for Regulation of Telecommunication Services (the Telecom Law) was promulgated in December 2005 and a regulatory board, the Afghanistan Telecommunications Regulatory Authority (ATRA), was set up.

4. There remains an access agenda for rural areas, a need to improve the quality and range of services considerably, and to reduce prices further. Nonetheless, progress to date has been remarkable. The Telecom Development Fund was meant to play a role in this area, but limited progress has been seen to date.

5. Over the past 7 years, as the telecommunications sector has continued to develop, telecommunications revenues have grown to become a significant portion of the Government's budget.<sup>36</sup>

6. Today, the main objective of government policy for communications is to modernize and rapidly expand telecommunications networks and services, and to achieve universal access to telephony across the country. The Government is also focusing on information and communication technologies, seeking to create opportunities for disadvantaged groups, and investing in developing such opportunities. The Government recognizes the significance of creating the right conditions for open competition and private sector investment by ensuring a stable and transparent policy, legal, and regulatory environment.

<sup>33</sup> This section is largely based on World Bank. 2005. *The Investment Climate in Afghanistan—Exploiting Opportunities in an Uncertain Environment*. Washington, DC (December); and M.N. Naseri. 2005. *Afghanistan Country Report—Telecommunications*. Kabul (November).

<sup>34</sup> World Bank. 2005. *The Investment Climate in Afghanistan—Exploiting Opportunities in an Uncertain Environment*. Washington, DC (December).

<sup>35</sup> Telephones per 1,000 people.

<sup>36</sup> Roshan has been responsible for about 65% of the Government's entire telecoms revenues since its first year of operation, and is the single largest contributor to the state budget through a variety of taxes, having contributed 10% of the state budget in 2005.

7. MOC's vision for the future focuses on the following scope of achievements:
- (i) wide coverage of services in all cities, towns, and 5,000 villages;
  - (ii) improved quality, lower tariffs;
  - (iii) competitive environment with four global system for mobile communications (GSM) operators;
  - (iv) penetrating 35% of the population in the next 5–7 years;
  - (v) 50,000 jobs created in the next few years;
  - (vi) cumulative investments in telecom over 1.5 billion in next 4 years; and
  - (vii) more importantly, government revenues from telecom in next 10 years should be \$2 billion.

### C. Fixed-Line Telephony Market

8. In the absence of any national telecommunications operators, MOC took over the operation of the country's limited fixed-line infrastructure in 2001. It inherited two separate fixed-line networks, an outdated analog system dating back to Soviet rule, and a newer fiber-optic network used by the Taliban. Neither network extended beyond the country's borders nor did they offer reliable interconnectivity. Hence, Afghanistan relied heavily on satellite connectivity for international calls and limited data transmission, as well as for most domestic long-distance services.

9. Although no second fixed-line operator is licensed in Afghanistan, the regulator has set aside within its numbering plan the possibility of two further licensees. There are currently no plans to award additional fixed-line licenses in Afghanistan.

### D. Mobile Telephony Market

10. Driven by a competitive market and several hundred million dollars in private investment, the mobile footprint covers about half of the population. Table A2 describes the Afghan mobile market, based on estimates.

**Table A2: Afghan Mobile Market**  
(‘000)

Item	2003	2004	2005	2006	2007
Afghan population (million)	23	24	25	25	32
Mobile penetration (%)	0.7	3.0	4.6	6.8	12.4
Roshan subscribers	49	390	716	1,069	1,800

Sources: TeleGeography, Asian Development Bank estimates.

11. Following the first commercial launch in Kabul in April 2002, mobile services have developed rapidly, reaching about 4 million subscribers by December 2007.

12. Given the low penetration rate of 12% at the end of 2007, and the fact that 50% of the population are 15 years of age or younger, the prospects for market growth are significant. The youth and female segments are significantly underpenetrated, with considerable room for continued growth.

13. Confidence in the sector has resulted in significant private sector investments, most recently evidenced in 2006 by the \$40.1 million paid by Investcom and Etisalat for Afghanistan's third and fourth mobile licenses.

#### **E. Market Structure**

14. The cellular market is currently served by four private cellular network operators—Roshan, Afghan Wireless Communications Company (AWCC), MTN/Areeba, and Etisalat—and the state-run fixed-line operator Afghan Telecom.

15. All GSM-providing companies offer national and international mobile calling, voice mail, national and international SMS, and data services, on prepaid pricing plans. They also offer a postpaid pricing plan to corporations. The unreliability of the postal service and lack of retail banking infrastructure remain a barrier to further development of this product.

#### **F. Internet Communication**

16. The internet has become one of the most efficient ways for firms to communicate and conduct business with distant clients. However, in Afghanistan, business use of the internet is nearly nonexistent outside of a few of the largest cities. On average, 15% of the surveyed firms regularly use e-mail in interactions with their clients and suppliers, and 9% use web pages. There is a distinct regional difference in the use of the internet. Almost a quarter of enterprises in Kabul, Herat, and Mazar-e-Sharif reported using the internet. However, in Jalalabad and Kandahar, no firms reported using websites and only 6% of the sample in Kandahar used e-mail.

## ADB ASSISTANCE FOR AFGHANISTAN

**Table A3.1: Asian Development Bank Loans, Technical Assistance, and Grants  
for Afghanistan**  
(1 January 2002 – 31 May 2008)

Project	Approval Date	Commitment Amount (\$'000)
<b>A. Loans</b>		
Post-Conflict Multisector Program	Dec 2002	167,180
Emergency Infrastructure Rehabilitation and Reconstruction	Jun 2003	150,000
Agriculture Sector Program	May 2004	55,000
Regional Airports Rehabilitation	Nov 2004	30,000
Andkhoy–Qaisar Road	Dec 2004	80,000
Power Transmission and Distribution	Apr 2005	26,500
Fiscal Management and Public Administration Reform	Dec 2005	48,000
Western Basins Water Resources Management	Dec 2005	60,500
North–South Corridor Project	Sep 2006	78,200
Regional Power Transmission Interconnection (Regional)	Dec 2006	35,000
<b>Subtotal (A)</b>		<b>730,380</b>
<b>B. Technical Assistance</b>		
Capacity Building for Reconstruction and Development	May 2002	14,636
Disaster Preparedness and Management Capacity Building	May 2002	500
Energy Sector Review and Gas Development Master Plan	Mar 2003	950
Capacity Building for Reconstruction and Development (Supplementary)	Mar 2003	450
Power Transmission and Distribution	Aug 2003	750
Herat–Andkhoy Road	Sep 2003	1,000
Regional Airports Rehabilitation	Nov 2003	1,000
Institutional Strengthening of the Gas Sector	Dec 2003	750
Support for Public Administration Reform Program	Dec 2003	3,400
Capacity Building in Agriculture and Natural Resource Management for Programming and Aid	Dec 2003	400
Poverty Assessment and Socioeconomic and Macroeconomic Statistical Capacity Building	Dec 2003	1,750
Capacity Building for Reconstruction and Development (Supplementary)	Jan 2004	90
Preparing the National Power Transmission Grid	Feb 2004	750
Capacity Building for Agriculture Policy Reform	May 2004	1,000
Capacity Building for Reconstruction Development (Supplementary)	Jun 2004	271
Security of ADB-Financed Projects in Afghanistan	Jun 2004	990
Establishing a Gas Regulatory Framework	Jul 2004	750
Master Plan for Road Network Improvement	Aug 2004	2,000
Kabul Air Quality Management	Oct 2004	450
Western Basins Water Resources Management and Irrigated Agriculture Development	Oct 2004	1,960
Poverty Reduction and Rural Renewable Energy Development	Dec 2004	750
Capacity Building for Land Policy and Administration Reform	Dec 2004	250
Capacity Building of the Ministry of Finance	Dec 2004	960
Cross-Border Trade and Transport Facilitation	Dec 2004	550

<b>Project</b>	<b>Approval Date</b>	<b>Commitment Amount (\$'000)</b>
Capacity Building for Impact Monitoring and Evaluation	Dec 2004	450
Natural Resources Management and Poverty Reduction	Dec 2004	1,785
Capacity Building of the Ministry of Energy and Water	Apr 2005	750
Capacity Strengthening of the Civil Aviation Sector	Jun 2005	1,000
Capacity Building for Economic Management	Aug 2005	390
Capacity Building for Road Sector Institutions	Oct 2005	1,000
Preparing the Natural Gas Development	Oct 2005	995
Small to Medium-Sized Hydropower Development Project	Oct 2005	800
Building the Capacity of the Ministry of Commerce for Trade and Transit Facilitation	Nov 2005	400
Commercial Agriculture Development	Nov 2005	995
Capacity Development for Irrigation and Water Resources	Dec 2005	755
Capacity Building for Regional Cooperation	Dec 2005	400
Financial Market and Private Sector Development	Dec 2005	1,000
Road Rehabilitation and Capacity Building Cluster	Aug 2006	2,700
Support to the Afghanistan National Development Strategy	Dec 2006	2,700
Herat–Bala Murghab Road	Oct 2006	150
Capacity Building for Customs and Trade Facilitation	Dec 2006	1,200
Improving the Capacity of Da Afghanistan Breshna Moassessa	Dec 2006	1,200
Support to the Interministerial Commission for Energy	Jan 2007	2,000
Support for Economic Policy Management	Sep 2007	800
<b>Subtotal (B)</b>		<b>57,827</b>
<b>C. Grants</b>		
Post-Conflict Multisector Program	Dec 2002	174,100
EIRRP—Road	Jun 2003	82,400
EIRRP—Power and Gas	Jun 2003	70,800
EIRRP—Traditional Irrigation	Jun 2003	17,300
Agriculture Sector Program Loan	May 2004	56,800
Afghanistan Investment Guarantee Facility	Sep 2004	5,600
Regional Airports Rehabilitation Phase 1	Nov 2004	33,300
Andkhoy–Qaisar Road	Dec 2004	84,500
Power Transmission and Distribution	Apr 2005	51,800
Qiasar–Bala Murghab Road	Jul 2005	55,000
Fiscal Management and Public Administration Reform Program	Dec 2005	58,800
Western Basin Integrated Water Resources Management	Dec 2005	69,600
North–South Corridor	Sep 2006	126,000
Private Sector and Financial Market Development Program	Dec 2006	56,000
Supporting Private Sector and Financial Market Reforms	Dec 2006	4,000
Regional Power Transmission Interconnection Project	Dec 2006	38,700
Road Network Development Project I	Sep 2007	176,000
<b>Subtotal (C)</b>		<b>1,160,700</b>
<b>Total</b>		<b>1,948,907</b>

Source: Asian Development Bank.

**Table A3.2: Asian Development Bank Direct Assistance  
to the Private Sector in Afghanistan**  
(1 January 2002 – 31 May 2008)  
(\$'000)

Approval Date	Investment/ Loan No.	Company	Equity Investment	ADB Loan	PRG	Total
May 2004	7199	Afghanistan International Bank	2,602			2,602
September 2004	2091	Afghanistan Investment Guarantee Facility			10,000	10,000
November 2004	7202/2098	Telecom Development Company Afghanistan B.V.		35,000		35,000
July 2005	7215	Afghanistan Renewal Fund	5,500			5,500
December 2006	7238/2241	Roshan Phase II Expansion—Telecom Development Company Afghanistan Limited		35,000	7,210	42,210
May 2008		GTL Infrastructure Ltd Phase II Telecommunication Infrastructure Project		150,000		150,000
		<b>Total</b>				<b>245,312</b>

ADB = Asian Development Bank, PRG = political risk guarantee.  
Source: Asian Development Bank.

## ADB ASSISTANCE TO THE TELECOMMUNICATIONS SECTOR

**Table A4.1: Telecommunications Sector Loans**  
(as of 31 May 2008)

Country	Loan Project	Amount (\$ million)	Approval Date
Sri Lanka	Communications Satellite Earth Station	3.6	19 Aug 1971
Western Samoa	Telecommunications	14.5	21 Nov 1972
Viet Nam	Saigon Telecommunications	6.2	6 Dec 1973
Tonga	Telecommunications	1.3	8 Nov 1973
Sri Lanka	Communications Satellite Earth Station	1.5	28 Nov 1974
Tonga	Multiproject	1.2	10 Dec 1979
Pakistan	Telecommunications	29.0	17 Jun 1982
Thailand	Rural Telecommunications	72.6	11 Dec 1984
Pakistan	Second Telecommunications	69.0	26 Nov 1985
Cook Islands	Second Multiproject (telecom subproject)	0.6	27 Oct 1987
Philippines	Philippine Long Distance Telephone Co.	24.0	29 Mar 1988
India	Telecommunications	135.0	7 Apr 1988
India	Second Telecommunications	118.0	9 Feb 1989
Western Samoa	Second Telecommunications	7.4	1 Jun 1989
Pakistan	Third Telecommunications	115.0	16 Aug 1990
Cook Islands	Outer Island Communications	4.9	20 Sep 1990
Sri Lanka	Second Telecommunications	41.1	11 Oct 1990
Indonesia	Telecommunications	185.0	4 Feb 1992
Cook Islands	Emergency Telecommunications Rehabilitation	0.5	16 Jul 1992
Indonesia	Second Telecommunications	195.0	1 Jun 1993
Thailand	Second Rural Telecommunications	84.1	29 Jun 1993
PRC	Telecommunications	100.0	17 Aug 1993
Mongolia	Telecommunications	24.5	16 Jun 1994
PRC	Second Telecommunications	100.0	26 Sep 1995
Thailand	Third Rural Telecommunications	100.0	26 Nov 1996
India	Rural Telecommunications	113.0	28 Nov 1996
Maldives	Information Technology Development	9.5	17 Dec 2001
<b>Total</b>		<b>1,556.5</b>	

PRC = People's Republic of China.

Source: Asian Development Bank.

**Table A4.2: Private Sector Telecommunication Projects**  
(As of 30 April 2008)

Country	Loan Project	Amount (\$ million)	Approval Date
Philippines	Philippine Long Distance Telephone Co.	24.0	29 Mar 1988
Bangladesh	Grameen Phone Telecommunications	16.7	20 Jan 1998
Bangladesh	Grameen Phone Telecommunications Expansion	20.0	26 Jan 2004
Afghanistan	Telecom Development Company Afghanistan B.V.	35.0	4 Nov 2004
Afghanistan	Roshan Phase II Expansion—Telecom Development Company Afghanistan Limited	42.2	29 Jun 2006
India	GTL Infrastructure Ltd Phase II— Telecommunication Infrastructure Project	150.0	23 May 2008
<b>Total</b>		<b>287.9</b>	

Source: Asian Development Bank.

**Table A4.3: Telecommunications Sector Technical Assistance**  
(As of 31 May 2008)

Country	Loan Project	Amount (\$'000)	Approval Date
Thailand	Telecommunications	50	1 Mar 1984
Pakistan	Rural Telecommunications Strategy Study	100	28 Nov 1985
Sri Lanka	Telecommunications Development Study	350	21 Jun 1988
Philippines	Advisory Services for Telecommunications Sector	880	18 Jul 1988
India	Management Training for DOT	390	9 Feb 1989
India	Study of Industrial Engineering Standards and Costing Systems	270	9 Feb 1989
India	Study of DOT's Specifications for Cables	90	9 Feb 1989
Western Samoa	Institutional Strengthening of Posts and Telecommunications	460	1 Jun 1989
Regional	Regional Conference on Telecommunications	373	4 Jun 1990
Cook Islands	Institutional Strengthening of Cook Islands Post Office	275	20 Sep 1990
Sri Lanka	Institutional Strengthening of Sri Lanka Telecommunications	460	18 Oct 1990
Indonesia	Sumatra Telecommunications	600	24 Dec 1990
Indonesia	Second Telecommunications	600	6 Sep 1991
PRC	Integrated National Telecommunication Strategic Development Plan and East Indonesia Strategic Master Plan	1,500	4 Feb 1992
Mongolia	Telecommunications Development Plan	600	1 Apr 1992
PRC	Telecommunications	215	21 May 1992
Thailand	Telecommunications Restructuring and Privatization	600	29 Apr 1993
PRC	Telecommunications Management Support	598	17 Aug 1993
India	Rural Telecommunications	100	21 Sep 1993

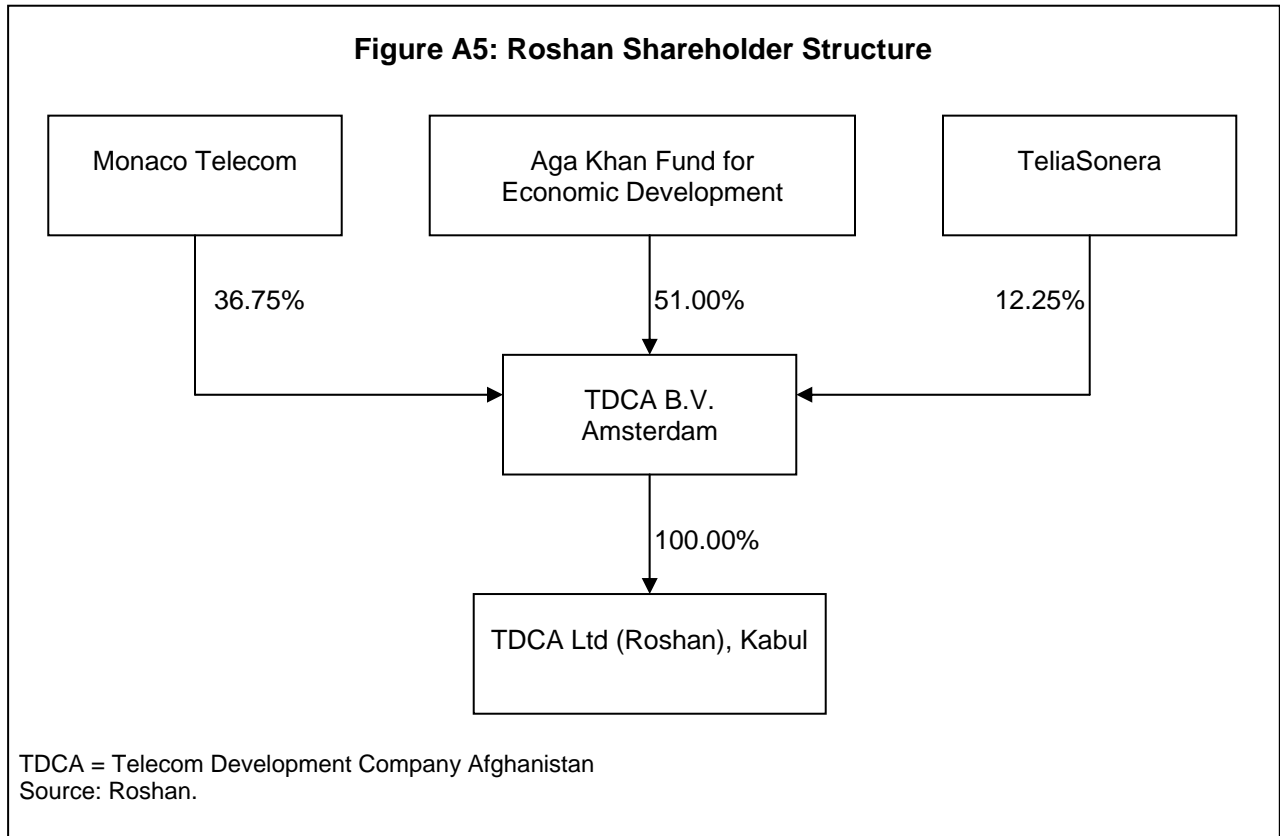
<b>Country</b>	<b>Loan Project</b>	<b>Amount (\$'000)</b>	<b>Approval Date</b>
Indonesia	Third Telecommunications	583	22 Feb 1994
PRC	Second Telecommunications	282	21 Apr 1994
Mongolia	Telecommunications Sector Reform	588	16 Jun 1994
Thailand	Socioeconomic Impact Study of Rural Telecommunications	200	22 Aug 1995
PRC	Institutional Strengthening of Provincial Telecommunications Administration	600	26 Sep 1995
GMS	Meeting of Telecommunications officials	30	2 Oct 1995
India	Institutional Support for Telecommunications Development	575	22 Jul 1996
Bangladesh	SSTA for an Advisor to MOPT	100	4 Apr 1997
GMS	East Loop Telecommunications Project	820	10 Apr 1997
Regional	Third Meeting of the Subregional Telecommunications Forum	50	18 Jun 1997
Timor-Leste	Rehabilitation of the Telecommunications Sector	150	17 Apr 2000
Regional	Backbone Telecommunications Network Phase I	150	17 May 2000
Timor-Leste	Rehabilitation of the Telecommunications Sector Phase II	150	26 Sep 2000
Regional	ADB-ADBI Workshop on Information and Communications Technology Strategy for Developing Asia	50	27 Nov 2000
Maldives	Information Technology Development	150	19 Dec 2000
Regional	Regional Round Table on Information and Communication Technology	90	21 Dec 2000
Pacific	Information and Communication Technology Assessment in the Pacific	300	18 Jul 2001
GMS	Telecommunications Sector Policy Formulation and Capacity Building	700	2 Nov 2001
Fiji Islands	Implementation of the Information and Communication Technology Strategy	150	28 Apr 2003
Pacific	E-rural Demonstration in the Pacific	230	15 Jul 2004
Regional	South Asia Subregional Economic Cooperation Information and Communication Technology Development Master Plan	450	25 Feb 2005
Cambodia	Implementation of Telecommunications Sector Policy Reforms and Capacity Building	1,000	25 Aug 2006
<b>Total</b>		<b>15,909</b>	

GMS = Greater Mekong Subregion, PRC = People's Republic of China.  
Source: Asian Development Bank.

## SHAREHOLDER INFORMATION

### A. Shareholding Structure

1. Figure A5 illustrates Roshan’s current shareholder structure. Originally, Alcatel had a 5% stake in Roshan, but in July 2004 this was sold to Monaco Telecom and MCT Corporation (MCT). In July 2007, TeliaSonera acquired MCT, taking hold of 12.25% of Roshan.



2. Each of Roshan’s shareholders brings certain strengths to Roshan (Table A5).

**Table A5: Shareholder Strengths**

<b>AKDN</b>	<b>Monaco Telecom</b>	<b>TeliaSonera</b>
<ul style="list-style-type: none"> <li>Country-specific expertise, with presence in Afghanistan since mid-1990s</li> </ul>	<ul style="list-style-type: none"> <li>Network operator experience in Algeria, Kosovo, and Monaco</li> </ul>	<ul style="list-style-type: none"> <li>Operating expertise in Commonwealth of Independent States</li> </ul>
<ul style="list-style-type: none"> <li>Strong government relations with the President of Afghanistan</li> </ul>	<ul style="list-style-type: none"> <li>Strong technical support team for design and quality assurance</li> </ul>	<ul style="list-style-type: none"> <li>Operates Roshan’s sister companies in neighboring countries to create a unique regional investment opportunity</li> </ul>
<ul style="list-style-type: none"> <li>Operating experience in other post-conflict developing countries</li> </ul>	<ul style="list-style-type: none"> <li>Transfer of knowledge</li> </ul>	

AKDN = Aga Khan Development Network.  
Sources: Roshan, Standard Bank, Asian Development Bank.

## **B. Descriptions of the Shareholders**

### **1. Aga Khan Fund for Economic Development**

3. The Aga Khan Fund for Economic Development (AKFED) is the economic development arm of the Aga Khan Development Network (AKDN), a group of development agencies seeking to improve opportunities and living conditions in specific regions of the developing world, especially Africa and Asia. AKDN, which has been supporting humanitarian assistance and rehabilitation in Afghanistan since 1996, works for the common good of all citizens, regardless of their gender, origin, or religion. Its underlying impulse is the ethic of compassion for the vulnerable in society. Its programs in Afghanistan come under a comprehensive development agreement signed by the Aga Khan and President Hamid Karzai of Afghanistan.

4. For more than 50 years, AKFED has made investments and operated companies in the developing nations of Africa, South Asia, and Central Asia. AKFED seeks to create profitable, sustainable enterprises through long-term investments that result in strong equity positions. This in turn allows AKFED to take a “hands-on” approach by providing managerial and technical expertise. Profits generated by the fund are reinvested in other economic development initiatives under the AKFED umbrella.

5. AKFED often works in collaboration with local and international development partners to create and operate companies that provide goods and services essential to economic development. These range from banking to electric power, agricultural processing, hotels, airlines, and telecommunications. AKFED also works with governments to help promote the creation of enabling legal and fiscal structures that encourage the growth of the private sector.

6. At the invitation of several governments, AKFED has helped critical sectors make the transition to market economies through privatization. These include banking, power generation, tourism, manufacturing, and agriculture in countries as varied as Afghanistan, Pakistan, Tajikistan, and Uganda. AKFED’s approach emphasizes the development of local human resources over time, including managerial, technical, marketing, and financial skills. Other characteristics of this approach include providing essential seed capital to launch projects in those sectors and countries where attracting investment is difficult. AKFED takes a long-term view to build viable, self-sustaining, and profitable companies. It also participates in the management of companies in which it invests, with the aim of preparing companies for broader ownership by local interests.

#### **a. Financial Services**

7. To encourage the creation of strong and efficient capital markets, AKFED provides an institutional umbrella for banks, insurance groups, and property-owning and management companies in eastern Africa, Central Asia, and South Asia.

8. AKFED’s investments include a controlling interest in Habib Bank Limited, Pakistan’s largest private bank (acquired through a government privatization program in 2004) and the Development Credit Bank Limited in India. AKFED is also the founder and lead shareholder in the Kyrgyz Investment and Credit Bank which focuses on the corporate sector and on medium- and long-term finance that will contribute to the growth of the banking industry and stimulate entrepreneurial activity. In Bangladesh, AKFED is the majority owner of a leading provider of corporate finance and lending services to major businesses and projects.

9. Its holdings in East Africa include the Diamond Trust Bank, which was founded in the 1930s in Kenya to help recycle local savings into loans for home building and small businesses. It now offers a range of retail banking products. The Jubilee Insurance Group provides insurance across the region. In Pakistan, New Jubilee Insurance and New Jubilee Life offer a range of products.

#### **b. Tourism Development**

10. AKFED's Tourism Promotion Services seeks to develop tourism potential in selected areas in the developing world, particularly in underserved regions. It builds, rehabilitates, and manages hotels and lodges that contribute to economic growth and the overall investment climate in an environmentally and culturally sensitive manner.

11. AKFED owns and manages properties in Afghanistan, Kenya, Mozambique, Pakistan, Tajikistan, Tanzania, and Uganda, operating under the brand name Serena. Serena hotels and lodges contribute to the local economy by training skilled labor, reinvigoration of artisans and craft industries, and sensitive conservation or development of the surrounding area. This includes prioritizing hiring and training of local residents for employment at all levels of the organization.

12. Tourism Promotion Services often seeks to develop properties in less-traveled areas that require accommodation of an international standard—accommodation that supports tourism and business development—but which often are ignored by commercial hotel chains.

13. At each hotel, the policy is to minimize the impact on the local environment while seeking to maximize socioeconomic benefits to the local economy. In Tanzania, for example, before the creation of new facilities in the country's national parks, four environmental impact studies were carried out. The Serena Hotel in Mombasa maintains a sanctuary for indigenous butterflies and works with local residents on a program to protect sea turtle nesting sites. These measures have earned the Serena hotels numerous environmental awards.

#### **c. Industry**

14. AKFED has invested in and manages over 50 industrial project companies in Africa and Asia. In the early 1960s, a group of companies was set up under the corporate name Industrial Promotion Services (IPS). Each company was created to provide venture capital, technical assistance, and management support to encourage and expand private enterprise in countries of sub-Saharan Africa and South Asia. Growth, privatization, and a reorientation away from import substitution and toward export promotion resulted in adjustments to IPS's approach. Expansion into areas such as agribusiness, packaging, and infrastructure in sub-Saharan Africa was accompanied by the need for new investments in the emerging economies of Central Asia in the 1990s and the current decade, in particular, in Tajikistan and Afghanistan. Today, IPS companies play a vital role in local and regional economies.

#### **d. Food and Agroprocessing**

15. One of IPS's core operational sectors, agroprocessing, includes companies that supply goods for local and export markets. They also play a significant role in supporting the rural economy. In Kenya, for example, Frigoken provides agricultural extension services to 25,000 Kenyan bean farmers. The beans are processed and exported to European markets.

Loans are provided to the farmers by the nonprofit Aga Khan Agency for Microfinance to assist them with financial needs that arise before receiving harvest revenues.

16. In West Africa, AKFED supplies agricultural extension services to more than 45,000 cotton farmers, operates cotton ginneries, and exports finished products. Its social programs offer microfinance, education, health, and sanitation to the farmers.

17. In addition to promoting the employment of women, these companies have become national role models in matters of employee welfare, including the provision of child care and health care.

#### **e. Infrastructure**

18. AKFED works with governments, international corporations, international financial institutions, and funding agencies to create solutions to pressing infrastructure needs, including power generation, telecommunications, and water supply services. AKFED's first investment in the power sector, the \$225 million Azito energy project in the Ivory Coast, was the largest private sector power plant in sub-Saharan Africa. It was followed by the Tsavo power plant in Mombasa, Kenya's first privately financed "open-bid" project and the first such plant successfully constructed under an updated and more stringent environmental law.

19. AKFED is also working with partners to rehabilitate and expand a Soviet-era hydroelectric power plant that will boost the eastern province of Tajikistan's inadequate electricity supply, reduce deforestation, and contribute to the region's economic recovery. In Uganda, AKFED is leading the \$500 million, 220-megawatt Bujagali Hydro Power Project to produce critically needed electricity for the country, and for neighboring Kenya.

20. AKFED's initial involvement in building telecommunications infrastructure was in Indigo, a global system for mobile communications (GSM) mobile phone operation in Tajikistan. Subsequently, AKFED was awarded Afghanistan's second GSM license and created Roshan, which is today one of the largest employers in the country. AKFED is also a key partner in the development of Seacom, a submarine cable that will connect countries located in the Eastern part of Africa to Europe.

#### **f. Media Services**

21. The Nation Media Group, founded by the Aga Khan in 1960, has its origins in Kenya's Taifa and Nation newspapers, which were set up to provide independent voices during the years just before the country's independence. Majority-owned and run by Kenyans, the Nation Media Group's operations include a growing number of English and Kiswahili national newspapers, a regional weekly, and radio and television stations. In recent years, the group has expanded its operations into Uganda and Tanzania.

#### **g. Aviation Services**

22. The aim of the aviation division is to maintain the critical aviation infrastructure in support of economic development. The division provides investment, management, and operational expertise and training. AKFED has taken a majority stake in Air Burkina, as part of a government privatization plan designed to ensure the long-term viability of the airline. AKFED also launched airlines in Mali (2005) and in Uganda (2007) to increase capacity in West and East Africa.

## 2. Monaco Telecom International

23. Monaco Telecom Group holds 36.75% of Roshan through its wholly owned subsidiary Monaco Telecom International (MTI).

24. Monaco Telecom Group was created in 1997 and is the incumbent operator for the Principality of Monaco. The group's predecessor was the principality's administrative service, the Office Monégasque des Téléphones. Monaco Telecom has an exclusive license to provide customers in Monaco with fixed telephony services, digital mobile telephony (GSM), public network interconnect services, and a public payphone service; the group's exclusivity ends in 2023. Today, Monaco Telecom is engaged in an ongoing major capital expenditure program designed to ensure that its services remain competitive and that it can continue to meet all its customers' requirements. The focus within Monaco is on quality of service while maintaining pricing parity with neighboring countries.

25. On 18 June 2004, Cable & Wireless acquired 55% of Monaco Telecom from Vivendi Universal, for a total consideration of €162 million. Simultaneously with the acquisition, Cable & Wireless transferred legal ownership of 6% of the shares of Monaco Telecom to Compagnie Monégasque de Banque, an unrelated third party. Cable & Wireless contractually retained voting and economic rights in the shares as part of the arrangement. In addition, the 6% interest is subject to certain put and call options that, together with the retained voting and economic rights, provide full management control of Monaco Telecom to Cable & Wireless.

26. Cable & Wireless has also entered into a shareholders' agreement with Monaco, which contains, among other provisions, a prohibition on either Cable & Wireless or the principality (subject to certain limited exceptions) selling their shares in Monaco Telecom for 5 years, mutual preemption rights on transfer of shares, and certain other limited rights in favor of the principality. The principality has a put option entitling it to put its 45% shareholding in Monaco Telecom to Cable & Wireless at certain times after 1 January 2008. The exercise price under the put option is fair market value, taking into account the nature of the minority stake in Monaco Telecom.

27. During the 12 months leading up to the year ending 31 March 2007, Monaco Telecom generated €201 million in revenues and €31 million in earnings before interest and taxes (EBIT) in operating profit.

28. Monaco Telecom is developing its international activities in network management, satellite services, and wireless broadband. Through MTI, the group has operations in Afghanistan, Algeria, Kosovo, Tunisia, and West Africa. Monaco Telecom's CEO Denis Martin and CFO Frédéric Pinchaud sit on the board of Roshan.

## 3. TeliaSonera

29. TeliaSonera is the leading provider of telecommunications solutions in the Nordic and Baltic region and the mobile communications leader in Eurasia. TeliaSonera is present in 18 countries, including associated companies in the Russian Federation and Turkey.

30. TeliaSonera is in the business of providing high quality telecommunications services, including packaging and carrying content such as sound, images, data, information, transactions, and entertainment. TeliaSonera offers services that help people and companies

communicate in an easy, efficient, and environmentally friendly way. Its main purpose is to serve its customers in the best way and create value for its shareholders through strong profits and cash flows.

31. TeliaSonera creates value by continuously exploiting new business opportunities on mobile and broadband networks, such as mobile data and internet protocol television, and expanding in the fast growing markets of Eurasia. It aims to lead the migration to new mobile and internet-based services in Nordic and Baltic markets.

32. In 2007, the number of subscriptions reached about 115 million in the majority-owned operations and associated companies. Operating income, excluding nonrecurring items, was SKr27.5 billion (about \$4.1 billion) and the number of employees 31,292. Net sales of the group was SKr96.3 billion in 2007 (about \$14 billion). TeliaSonera is listed on the Stockholm Stock Exchange and the Helsinki Stock Exchange.

33. TeliaSonera changed its business organization on 1 January 2007 from a country-based profit center organization into a product-based business area organization. On 1 January 2008, it further refined its business organization. Starting 1 January 2008, integrated enterprise services will no longer be a separate business area, and its operations will be reported as part of mobility services, broadband services, and other operations.

34. TeliaSonera acquired MCT with operations in Uzbekistan and Tajikistan as well as 12.25% holding in Telecom Development Company Afghanistan Limited (Roshan) in July 2007.

## ROSHAN MANAGEMENT INFORMATION

### A. Board of Directors

1. Lutfat Kassam is director of Industrial Promotion Services (IPS) at the Aga Khan Fund for Economic Development (AKFED). L. Kassam has led IPS in Kenya for 25 years where he has been responsible for over 20 companies in a variety of industries, including food processing and power generation. I. Kassam is the chair of the board.

2. Denis Martin joined Monaco Telecom as its CEO in December 2005. Prior to this, he was president of Cegetel, reporting to the chair of the SFR Cegetel Group, where he was in charge of the fixed-line telecom and internet provider business with €1.4 billion turnover; 2,100 employees; and 1.5 million customers. Previously, D. Martin held director of finance positions with Schlumberger and Sedco-Forex. He has also worked as senior IT auditor with Arthur Young in Paris. D. Martin was appointed chief executive, Monaco & Islands, Cable & Wireless International on April 2008.

3. Frédéric Pinchaud joined Monaco Telecom as its chief financial officer (CFO) in September 2006. Prior to this position, he was CFO of a Vodafone Group business unit in charge of non-voice technology with €0.4 billion turnover. Previously, F. Pinchaud held finance director positions with Vivendi. He also worked as auditor with Arthur Andersen in Paris. F. Pinchaud was appointed CFO Monaco & Islands, Cable & Wireless International in May 2008.

4. Richard Dodd became CEO of Cable & Wireless International's Caribbean businesses in April 2008. Prior to that, he joined Cable & Wireless in February 2005 as chief executive, Monaco & Islands and in August 2006, he also became director of business development for Cable & Wireless International. Prior to joining Cable & Wireless, R. Dodd ran his own start-up telecommunications company in London, after 12 years in management consulting, specializing in major deals and restructurings for AT Kearney in London, and prior to that, for Arthur D Little in Brussels. He has worked in a range of industries, including telecommunications, utilities, chemicals, retail, engineering, and environmental services. He is recognized as an experienced chief executive, leader, and entrepreneur with more than 25 years of operational and advisory experience and particular specialist skills in mergers and acquisitions, business strategy, restructuring, and business transformation.

5. Daniel Thomas joined AKFED as industrial development manager of IPS on 3 October 2001. He trained in finance and management, spent 12 years with Bull Group (IT solutions company) in various positions (from internal auditor to chief financial manager), followed by 5 years with Normandy Mining Group (Australian gold producer) as business analysis and planning manager and CFO.

6. Christian Godde joined AKFED as head of industrial development, in charge of the industrial activities of AKFED, on 1 November 2002. C. Godde, a chemist by training, spent 27 years with Unilever in various technical positions including 18 years from development manager to technical director of a large foods business in France—working in France and the Netherlands in oils and fats, dairy, and bakery. This was followed by 9 years in general management positions, notably as chair of Unilever's operations in Democratic Republic of Congo (foods, detergents, cosmetics, plantations, African prints); and chair of Astra-Calvé, a large foods business in France (oils and fats, cheese, mayonnaise and sauces, bakery products). He also spent some time in the Russian Federation for an acquisition. He then joined

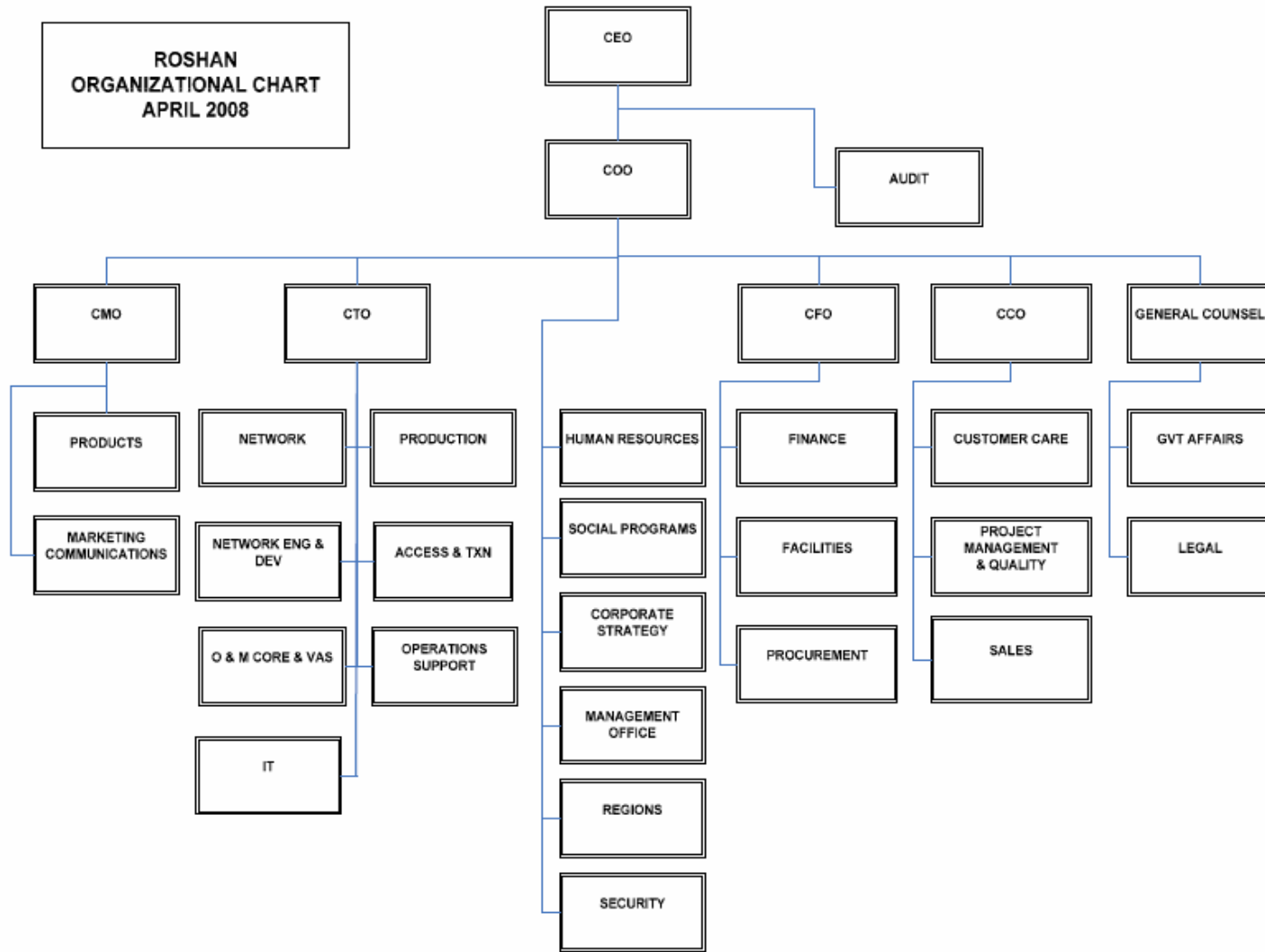
Groupe Bolloré in 1997 as managing director of its tobacco division, and then chief operating officer of the transport and forwarding activities in francophone Africa.

7. Jean-Louis Vinciguerra joined AKFED as senior financial adviser in May 2003. He was appointed senior financial adviser of the Aga Khan Development Network (AKDN) in March 2007. Jean-Louis Vinciguerra is a graduate of the Institute of Political Studies in Paris (Sciences Po) and Harvard Business School (US). During his career, he acquired extensive experience in managing industrial companies both in France and the US, as well as in-depth knowledge of the banking business in Europe and Asia. He began his career in 1971 with Pechiney, one of the world leaders in aluminium and packaging, where he was first vice president of finance, then group CFO, and finally head of the packaging division (located in Chicago, US). After leaving Pechiney, he acquired banking experience as a senior partner of Rothschild and Co., then BZW (Barclays Group) and finally Indosuez as head of the banking division for the Asia and Pacific region. In 1998, he joined France Telecom as senior executive vice president and CFO.

8. Esko Rytönen is senior vice president in international business support unit in TeliaSonera AB's business area Eurasia. From January 2003 to July 2004, E. Rytönen was CFO of Profit Center International in Teliasonera AB. Before the merger of Telia and Sonera, E. Rytönen was senior vice president (finance) of Sonera Oyj. Before joining PT Finland, he spent 15 years with Nokia Corporation in various management positions in marketing, business development, and financing. He was vice president (business development) for Nokia Cellular Systems Oy (the mobile infrastructure subsidiary) from 1990 to 1993, and head of export and project finance for Nokia Telecommunications Oy from 1993 to 1997. His career in Nokia also included a posting to Algeria from 1985 to 1986. E. Rytönen has a master of science (business administration) from Helsinki School of Economics. He serves as a board member and is on the audit committees of Fintur Holdings BV, SmartTrust AB, and Megafon. He is also chair of TeliaSonera Oyj Pension Fund. He has extensive lecturing experience on corporate finance, marketing, business development, and project financing topics.

9. Figure A6 provides an overview of Roshan's management structure.

Figure A6: Roshan Management Structure



CEO = chief executive officer; COO = chief operating officer; CMO = chief marketing officer; CTO = chief technical officer; CFO = chief financial officer, CCO = chief customer officer, GVT = government, DEV = development, ENG = engineering, IT = information technology, O&M = operation and maintenance.

Source: Roshan.

## B. Key Management Personnel

9. **Chief Executive Officer.** Karim Khoja has served in senior management positions in national and multinational telecommunications companies for over 15 years. He has extensive experience in nurturing start-up businesses from infancy through development, and has led several global system for mobile communications (GSM) start-up companies into becoming major market players as president and CEO—including being the founding CEO of Mobilink (Pakistan), the chair and CEO of EXI Wireless Inc. and a management board member of COO Croatian Telecommunication. K. Khoja has also directed marketing and sales strategy for companies such as ERA GSM (Poland), Spectonics Microsystems Ltd., and RAM Mobile Data Ltd. His involvement in the telecommunications sector in Afghanistan began in May 2002 as a volunteer consultant to AKFED in an initiative to install the nationwide private communications infrastructure. In January 2003, K. Khoja was appointed CEO of Roshan. Under his leadership, Roshan grew to be Afghanistan's largest mobile provider in only 1 year of operation.

10. **Chief Operating Officer.** Altaf Ladak has over 15 years of experience in international marketing and strategic development in the telecommunications industry. He has worked primarily in start-ups as well as in reorganizations for divisions of major international companies. He has been extensively involved in all areas of marketing including branding, marketing communications, strategy, and business development. A. Ladak's marketing strategies have played a key role in establishing Telcordia Technologies' international division in the Europe, Middle East, and Africa region, developing a global sales and marketing team in one of the divisions in Alcatel, as well as helping to set up a marketing team for RAM Mobile Data in the UK and Europe. A. Ladak has spent the last 5 years with Roshan and has helped to make it the number one operator in Afghanistan. Under his leadership, Roshan has received significant global recognition, winning awards for best brand, best emerging markets operator, and a special recognition for corporate philanthropy. A. Ladak has an MBA from Cornell University.

11. **Chief Customer Officer.** Wojciech Ploski was appointed chief customer officer of Roshan in September 2007. His career spans over 11 years of senior management and executive positions in multinational wireless and fixed telecommunications organizations in Poland, where most recently he held the position of director of strategy, marketing, and sales (member of the board) of Pakistan Telecommunication Company (PTC), one of the largest GSM operators in Poland; and director of sales and marketing (member of the board) at Sferia, one of the first code division multiple access (CDMA) operators in Europe. He brings to Roshan extensive experience in sales, marketing, strategy, and customer care. Prior to joining the telecommunications sector, W. Ploski has spent over 15 years in the television and video industry, where he held several positions with increased responsibilities of executive director (TV production), commercial director, and service manager. He holds a degree from the Warsaw University of Technology, Department of Telecommunications.

12. **General Counsel and Head of Government Affairs.** Since joining Roshan, Samir Satchu has worked on completing two rounds of senior loan financings in new funds, as well as leading the company's commercial legal, regulatory, and government affairs functions through a period of increased competition (entry of MTN and Etisalat) and increased regulatory intervention. Prior to Roshan, S. Satchu was head of mobile services at Premium TV, a mobile and internet sports rights National Transcommunications Limited subsidiary in London, where he launched premium mobile content services for 80 UK football clubs. S. Satchu is a graduate of the University of Cambridge and Harvard Law School and has worked in Afghanistan since September 2003.

13. **Chief Technology Officer.** Amiruddin Ahmad has over 20 years of successful leadership and executive roles in the wireless and fixed telecommunications industry, ranging from network deployment, management of network and IT operations, IP backbone, systems engineering, application development, system analysis and management, and various other technical projects and operations. Prior to joining Roshan in August 2007, A. Ahmad served as senior executive vice president, chief technology officer for PTC; chief technology officer at Telecel Zimbabwe, an Orascom company; and held numerous technology positions including chief technology officer for Mobilink, Pakistan. In 1984, he graduated from NED University of Engineering and Technology, Pakistan.

14. **Chief Marketing Officer.** Robert Bowles has over 25 years of international experience in the telecommunications industry. During the first half of his career, he held a variety of positions with Regional Bell Operating Company US West in Denver, Colorado, and Phoenix, Arizona. In 1996, he transferred to MediaOne Group's One2One's subsidiary in London launching the UK's first GSM prepay offering. Since then, he has worked in the field of marketing for a number of wireless and fixed line operators in Europe, including PTC in Poland, EuroTel in the Czech Republic, T-Mobile in Croatia, M-Tel in Bulgaria and, most recently, Romtelecom in Romania. R. Bowles graduated from Michigan State University and an MBA from Arizona State University.

15. **Acting Chief Financial Officer.** Karim Punja has been with Roshan since the original commercial launch in July 2003. In his capacity as acting CFO, he oversees the controller, treasury, revenue assurance, and supply chain management functions. In addition, K. Punja has worked on many strategic projects including regulatory cost modeling, project financing, and outsourcing. He began his career as a treasury analyst with Credit Union Central of Canada and was subsequently involved with setting up a risk management consulting firm. He also worked with Enron Canada Corporation as part of its electricity management group, responsible for analyzing newly deregulated power assets within the province of Alberta. K. Punja then went on to work as a consultant to various local utility corporations to create business models and settlement tools to maximize profitability from their physical power assets. His education background includes a bachelor of commerce degree from the University of Calgary.

16. **Recent Changes.** In the last 8 months, Roshan has strengthened its senior management team significantly, bringing in three new chief officers described above: a chief technical officer with years of experience in telecommunications in Pakistan who has experience in expanding networks from the 1 million to the 5 million subscriber mark; a chief customer officer with over 15 years of telecoms experience who is leading the customer care, retention and loyalty, and sales teams; and a chief marketing officer responsible for products and international services and marketing communications, with over 10 years of telecoms experience.

17. Table A6 describes the implementation of Roshan's strategy.

**Table A6: Implementation of Roshan's Strategy**

Item	Description
Rapid Network Rollout and Extensive Coverage	Roshan has sought to maximize the value of its network by initially focusing on key urban centers and then expanding coverage to suburban and rural areas. As of April 2008, Roshan's network covered over 55% of the Afghan population, roughly 10% more than its nearest competitor. Customers list coverage as a key driver of using Roshan's network. This is an advantage that Roshan would like to maintain. Importantly, Roshan's network rollout has been rapid, with almost 800 base transceiver stations on air today.
Premium Quality Provider	Roshan's continued emphasis on quality has made it the strongest player in the Afghan market. The recent technology swaps and upgrades in the first quarter (Q1) and Q2 of 2008 will enable Roshan to maintain its positioning at the forefront of quality and to ensure that Afghan subscribers receive high-quality communications service.
Innovative Marketing Approach	Roshan has developed a unique and differentiated brand and introduced a wide range of service innovations to the Afghan market. These are designed to maximize the value and appeal of Roshan's services to subscribers and to differentiate Roshan on grounds other than price. Moreover, Roshan has been aggressive with the introduction of promotions in the market that seek to support its position as the "prime SIM" in the Afghan market today. Distribution and customer service are also prioritized within Roshan's marketing strategy. Roshan has won a number of international awards for its brand, marketing, and customer care efforts.
Strong Shareholder Support	In implementing its strategy, Roshan has greatly benefited from the resources, market knowledge, and relationships of its three shareholders.
Social Development	Roshan is dedicated to the reconstruction of Afghanistan, and has specific resources dedicated to this purpose, serving as a benchmark for corporate social responsibility in Afghanistan.

Source: Roshan.

## SUMMARY OF SOCIAL PROGRAMS

1. **Public Call Office Program.** Roshan has some 2,500 public call offices (PCOs)<sup>1</sup> operated by individual entrepreneurs around the country, each generating a minimal profit for Roshan, but a substantial \$50–\$1,500 monthly profit per entrepreneur. This is a program similar to Grameenphone's Village Phone project,<sup>2</sup> whereby people without access to phones can access mobile phone services. Through a partnership with First MicroFinanceBank Limited, entrepreneurs can take out a microfinance loan for the capital expenditure in acquiring a PCO unit. Roshan subsidizes the initial airtime allocation to a retail value of \$250 per unit. In the fourth quarter (Q4) of 2007, Roshan partnered with the United States Agency for International Development to roll out 500 women's PCOs—PCOs owned and operated by female entrepreneurs. Currently, there are 60 active women's PCOs and Roshan has identified close to 200 more women who will shortly be operating PCOs. Table A7 indicates the growth of PCOs. Roshan is now expanding PCOs to more rural areas and lower-end entrepreneurs, so the revenue per PCO is falling as PCO numbers increase.

**Table A7: Roshan's Public Call Office Usage**

Item	December 2005	December 2006	December 2007	Growth (2005–2007, %)
Active PCOs	412	946	1,992	383
Total Usage (\$)	55,600	65,158	75,121	35

PCO = public call office.

Source: Roshan.

2. **Medical and Health Program.** Roshan has a state-of-the-art medical and dental clinic in an unused leased building (its former head office), which, in addition to providing staff with access to checkups and medical and/or dental services, also conducts training for all staff in first aid and dental hygiene. Family members of all Roshan employees are able to use the clinic facilities. The clinic covers operating costs by providing health services to other organizations, such as embassies and nongovernment organizations. Roshan is one of the first companies in Afghanistan to provide medical insurance benefits for local national staff. Part of the health professionals' time is also allocated to outreach activities, e.g., working with local and rural orphanages on health education and prophylaxis. Roshan also sponsors, together with the Ministry of Public Health, training for laboratory technicians at the Aga Khan University in Pakistan. Telemedicine, another major initiative—the first of its kind in Afghanistan—was launched by Roshan in 2007. Using its network technology, Roshan has connected the French Medical Institute for Children, the largest pediatric hospital in Afghanistan, with the Aga Khan University Hospital in Karachi, Pakistan. The link enables real-time support and diagnosis as well as training for Afghan medical staff at the French Medical Institute for Children in Kabul.

3. **Social Welfare.** Roshan's social programs focus on women and children as target audiences. In Afghanistan, roughly 45% of the population is under 15 years of age. Roshan has a number of purely social initiatives across the country, including the following:

- (i) **Support for the Aschiana orphanage.** Aschiana provides several thousand street children in Kabul and Mazar with shelter, food, and half-day education (the other half of the day, the children can retain income-generating activities). Roshan supports the activities through sponsorship (e.g., a soup kitchen that feeds 50,000 meals each month) and its health programs.

<sup>1</sup> Not all PCOs issued are active: 130 of the active PCOs are run by former combatants through the United Nations' demilitarization, demobilization, and reintegration program.

<sup>2</sup> The village phone project was awarded the Development Gateway Foundation's first Petersberg prize for "outstanding achievement in the use of information and communication technologies to improve people's lives".

- (ii) **Playground and park renovation.** To date, six playgrounds and football pitches have been installed around Afghanistan, with three additional ones planned in 2008.
- (iii) **School construction and donation of educational games, textbooks, and school supplies for schools across Afghanistan.**
- (iv) **Sport and recreational events, such as kite-flying festivals and poetry competitions.** Such events were banned under the Taliban and now serve to rebuild collective civil pride based on culture.

## SUMMARY POVERTY REDUCTION AND SOCIAL STRATEGY

Country/Project Title: **Afghanistan: Roshan Expansion Project (Phase III)**

Lending/Financing  
Modality:

**Direct Loan**

Department/  
Division:

**Private Sector Department  
Infrastructure Finance Division 1**

### I. POVERTY ANALYSIS AND STRATEGY

#### A. Linkages to the National Poverty Reduction Strategy and Country Partnership Strategy

The Project will address remaining unmet demand for affordable telecom services in semi-urban and rural areas. Increasing the telephone density in a war-torn country such as Afghanistan is vital to the national reconstruction efforts.

#### B. Poverty Analysis

**Targeting Classification: General Intervention**

##### 1. Key Issues

Establishment of additional base transceiver stations (BTSs) will ensure that mobile telephone service reach almost all semi-urban and major areas to reach significant levels of population coverage, in order to offer more affordable mobile telephone services. Additional public call offices will also be installed for those who cannot afford mobile phones.

**2. Design Features.** The Project will provide indirect benefits to the communities in general, and provide income-earning opportunities to the rural communities where the BTSs are located.

#### C. Poverty Impact Analysis for Policy-Based Lending

1. Discuss the impact channels of the policy reform(s) (direct and indirect, short and medium term) to the country and major groups affected. Not applicable
2. Discuss the impact of the policy reform(s) on vulnerable groups and ways to address it/them. Not applicable
3. Discuss how the policy reform(s) contribute(s) to poverty reduction, pro-poor growth, and the MDGs. Not applicable

### II. SOCIAL ANALYSIS AND STRATEGY

#### A. Findings of Social Analysis

Communities in the vicinity of the project areas will benefit from the availability of income-earning opportunities, e.g., income from leased land for 5–15 years and employment opportunities during construction of the BTSs. Improving communication facilities in the area will provide access to public service delivery, education, health, and security. Roshan will also provide direct training, employment, and business opportunities in underdeveloped areas, to staff, dealers, and subcontractors, including through the MicroReach program, targeted at women.

About 700 BTSs in 60 districts will be installed either on rooftops or on the ground on leased lands in urban areas and sparsely populated desert lands in rural areas. A typical BTS requires 144 square meters of land space. Sites will be leased on a willing lessor-willing lessee basis.

Although there are a number of ethnic groups in Afghanistan (e.g., the Kuchi, Pashtuns, Tajiks, Hazaras, Uzbek, Aimaks, Turkmen, Baloch, Brahui, Hindkowans, etc.), none of these ethnic groups will be affected as BTSs will be installed mostly on leased lands in urban areas and sparsely populated desert lands in rural areas. No BTS will be located in any historical structures, places or monuments, wetlands or national parks, sanctuaries, reserved forests, or any other areas with archaeological, historical, or recreational value.

#### B. Consultation and Participation

1. What level of consultation and participation (C&P) is envisaged during the project implementation and monitoring?
- Information sharing     Consultation     Collaborative decision making     Empowerment

2. Was a C&P plan prepared?  Yes     No

If a C&P plan was prepared, describe key features and resources provided to implement the plan (including budget, consultant input, etc.). If no, explain why.

Consultation and participation activities are integrated into the project preparation and construction phase.

**C. Gender and Development****1. Key Issues.**

The Project is not expected to cause any specific cultural or social impact on or exclude any socioeconomic group, including women, from benefiting from the Project.

**2. Key Actions.** Measures included in the design to promote gender equality and women's empowerment—access to and use of relevant services, resources, assets, or opportunities and participation in decision-making process:

Gender plan     Other actions/measures     No action/measure

**III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS**

<b>Issue</b>	<b>Significant/Limited/ No Impact</b>	<b>Strategy to Address Issue</b>	<b>Plan or Other Measures Included in Design</b>
<b>Involuntary Resettlement</b>	A typical BTS requires 144 square meters of land and/or space. Sites will be leased through private market transactions on a willing lessor-willing lessee basis.	No impact.	<input type="checkbox"/> Full Plan <input type="checkbox"/> Short Plan <input type="checkbox"/> Resettlement Framework <input checked="" type="checkbox"/> No Action
<b>Indigenous Peoples</b>	BTSs will be constructed in semi-urban and major rural areas. All residents will benefit from expanded mobile phone network coverage.	No impact.	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input type="checkbox"/> Indigenous Peoples Framework <input checked="" type="checkbox"/> No Action
<b>Labor</b> <input checked="" type="checkbox"/> Employment opportunities <input type="checkbox"/> Labor retrenchment <input type="checkbox"/> Core labor standards	BTS construction is expected to generate jobs in the local community.	No impact.	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action
<b>Affordability</b>	Subscription packages and/or rates will be introduced to make telephony, internet access, and short messaging service affordable to the youth, students, women, and family.	Limited.	<input type="checkbox"/> Action <input checked="" type="checkbox"/> No Action
<b>Other Risks and/or Vulnerabilities</b> <input type="checkbox"/> HIV/AIDS <input type="checkbox"/> Human trafficking <input type="checkbox"/> Others (conflict, political instability, etc), please specify	None	N/A	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action

**IV. MONITORING AND EVALUATION**

Are social indicators included in the design and monitoring framework to facilitate monitoring of social development activities and/or social impacts during project implementation?  Yes     No