



1. Project Data

Project ID
P121755

Project Name
Afghanistan ICT Sector Development Proje

Country
Afghanistan

Practice Area(Lead)
Transport & Digital Development

L/C/TF Number(s)
IDA-H6650

Closing Date (Original)
30-Jun-2016

Total Project Cost (USD)
41,664,876.51

Bank Approval Date
26-Apr-2011

Closing Date (Actual)
30-Dec-2017

	IBRD/IDA (USD)	Grants (USD)
Original Commitment	50,000,000.00	0.00
Revised Commitment	50,000,000.00	0.00
Actual	41,664,876.51	0.00

Prepared by
Kavita Mathur

Reviewed by
Peter Nigel Freeman

ICR Review Coordinator
Ramachandra Jammi

Group
IEGSD (Unit 4)

2. Project Objectives and Components

a. Objectives

The project development objective (PDO) as stated in the Financing Agreement (page 4) was “to expand connectivity, mainstream the use of mobile applications in strategic sectors in the government, and support the development of the local Information Technology (IT) industry.”

The PDO was not revised.



b. Were the project objectives/key associated outcome targets revised during implementation?

No

c. Will a split evaluation be undertaken?

No

d. Components

Component 1: Expanding connectivity (appraisal cost US\$30.0 million, actual cost US\$27.1 million).

This component financed the expansion of backbone networks and supported the creation of an enabling environment to increase the reach of high quality mobile telephone and internet services. This component included three sub-components:

- (a) Technical assistance to the Ministry of Communications and Information Technology (MCIT) to update the Information and Communication Technology (ICT) sector policy; to assist Afghanistan Telecommunications Regulatory Authority (ATRA) to implement regulatory reforms to create an enabling environment for rapid broadband network deployment and for even wider access to high quality mobile telephone services; and to acquire spectrum management and monitoring tools.
- (b) The extension of the national backbone network to central, northeast, and southern provinces of Afghanistan (totaling about 1,000 km).
- (c) Capacity building activities for MCIT and ATRA.

Component 2: Mainstreaming mobile applications (appraisal cost US\$9.3 million, actual cost US\$4.4 million). This component financed the following activities:

- (a) Technical assistance for the creation of an mGovernment strategy and roadmap, the development of required policy or regulatory instruments to enable the mobile applications ecosystem, and capacity building activities; associated strategic advisory and capacity building support to promote mainstreaming of mobile applications (m-apps);
- (b) The creation of shared services and infrastructure for use by various ministries, agencies, and programs that would enable less expensive and faster design, testing, deployment, and operation of mGovernment services, including the creation of a service delivery platform (SDP) for mGovernment; and
- (c) An innovation support program (ISP) to fund the most innovative ideas selected through a competition that addressed specific development challenges in priority areas identified by various ministries and agencies of the Government.

Component 3: IT industry development (appraisal cost US\$4.2 million, actual cost US\$4.4 million).

This component financed:

- (a) Technical assistance to define an IT sector development policy within the context of the ICT policy update, and to develop required legal, regulatory, and investment instruments to capture growth opportunities;
- (b) A skills development program to develop a pool of skilled and qualified IT professionals;
- (c) Technical assistance to develop a business plan for the ICT Village being developed by MCIT and shared services and facilities such as high-capacity telecommunications connectivity and backup power supply that would help make the ICT Village an attractive location for Afghan ICT firms; and



(d) The setting up of an incubator for ICT firms in the ICT Village and operational support, including rental charges for the incubator space, the acquisition of furniture and some communications facilities for the incubator, and the hiring of an incubator manager.

Component 4: Project Management Support (appraisal cost US\$4.2 million, actual cost US\$4.1 million). This component financed the creation and operation of the Project Management Office (PMO). This component also financed the training and capacity building activities within MCIT's finance, procurement, and administration departments.

Revised Components

On February 22, 2012, the project was restructured to introduce the Capacity Building Incentive Program under Component 4. The purpose was to provide officials in each of MCIT's departments (including Procurement, Finance, Planning, and ICT) with a financial incentive to compensate the time and resources needed to implement the capacity-building program. The estimated budget was \$400,000 (\$100,000 per year). In December 2013, MCIT and the World Bank task team agreed to close the capacity building incentive program, as the Ministry informed the Bank team of its findings (through internal discussions) that awarding the incentive might cause perceptions of favoritism among staff (ICR para 21). In addition, through a second restructuring in February 2015, the funding for the ISP was reduced from \$5 million to \$1 million.

e. Comments on Project Cost, Financing, Borrower Contribution, and Dates

Project Costs: The total project cost was US\$43.6 million, lower than the appraisal estimate of US\$50.0 million. The project team clarified that this difference was mainly due the exchange rate fluctuation between SDR vs. US Dollar.

Financing: At appraisal, the project was financed through an IDA grant of Special Drawing Rights (SDR) 31.800,000, equivalent to \$50 million. The grant amount was reduced to US\$44.69 million due to the exchange rate fluctuation. The actual amount was SDR 29.71 million (equivalent to \$41.75 million). At project closing, undisbursed amount was SDR 1.73 million (equivalent to \$2.43 million). The ICR (page 9) notes that as of July 24, 2018, there were outstanding payments (amounting to approximately US\$0.3 million) made by the PMO that were not documented by the World Bank.

Borrower Contribution: There was no planned or actual contribution from the Borrower.

Dates: On February 28, 2015 the project closing date was extended by one year from June 30, 2016 to June 30, 2017 to complete the deployment of the new segments of fiber optic network. Due to security issues, the route of the fiber optic backbone was changed (Yakawlang to Chagcharan and to Daikundi section was replaced with sections in Kunar, Kapisa, and from Bamyān to Mazar-e-Sharif).



The closing date was further extended on June 14, 2017 by six months to December 30, 2017 to complete the following activities: (i) complete ongoing fiber optic work in Mazar e Sharif-Bamyan (Component 1); (ii) launch 30 mobile applications (Component 2); and (iii) transact the final disbursement for the innovation component (Component 3).

3. Relevance of Objectives

Rationale

The project objectives were highly relevant to the current Bank's Country Partnership Framework (CPF) for Afghanistan, for the period FY17 to 2020. The project contributed to objective 2.2 "*Improved domestic and regional integration (transport, trade, and ICT connectivity)*) under the second Pillar "Supporting Inclusive Growth" of the CPF through improved regional and local internet connectivity. The CPF envisioned that improving transport and ICT connectivity is key to improving Afghanistan's growth prospects and ensuring greater regional integration. The CPF planned to support the development of a regional approach to improving broadband Internet connectivity in Central Asian countries and aimed to develop Afghanistan as a regional telecommunications connectivity hub. The project objectives were aligned with the Bank's regional strategy for the South Asia Region (approved in March 2015) which aimed at accelerating economic growth including investments in infrastructure, energy, urbanization, and agriculture while expanding access to finance and promoting regional and global integration.

The project objectives were aligned with the Government of the Islamic Republic of Afghanistan (GoIRA) eAfghanistan Strategy (2010), which aimed to develop the foundations for developing a knowledge-based information society by enhancing the use of ICTs across all sectors. The project was expected to play a crucial role in supporting the GoIRA eAfghanistan Strategy through: (a) expanding connectivity, mainstreaming the use of m-apps (mobile applications) across government agencies and ministries, and developing the capacity of Afghanistan's information technology (IT) sector to facilitate improved delivery of public services; (b) assisting in leveraging increased private investments; and (c) to providing resources to finance the design and implementation of key ICT policy and regulatory activities to foster private sector led growth (ICR para 10).

Rating

High

4. Achievement of Objectives (Efficacy)

Objective 1



Objective

Expand connectivity.

Rationale

The Theory of Change shows that expanding connectivity (Objective 1) is critical to achieving mainstreaming use of mobile applications (Objective 2) and to fostering the development of the local IT industry (Objective 3). The expansion of reliable connectivity increases the reach of high-quality mobile telephone and Internet services to citizens throughout the country. It offers requisites to improve public service delivery, simplify access to information and markets, and to foster the IT industry.

Outputs

Infrastructure

The ICT backbone network was expanded – a total of 1,014 km of fiber optic network was laid. At the second Restructuring (February 2015), there was a change of cable routing to replace sections of from Yakawlang to Chagcharan and to Daikundi with sections in Kunar, Kapisa, and from Bamyan to Mazar-e-Sharif, however the total length of the backbone network remained the same (approximately 1,000 km).

Capacity Building and Technical Assistance (TA)

The project provided technical assistance (TA) to the Ministry of Communications and Information Technology (MCIT) and Afghanistan Telecommunications Regulatory Authority (ATRA) to support the adoption of the Open Access Policy and the effective deployment of the fiber optic network.

The completed TA to ATRA included: (i) Backbone Open Access Policy and Tariff Regulations; (iv) Support for Financial Management Specialist; (v) Regulatory Issues for Developing Broadband and Mobile Sector Development; and (vi) Planning of Efficient use of Telecom Development Fund. The TA also supported structured twinning and peering arrangements between ATRA and regulatory agencies in other countries (staff was sent to TRAI-India) to build capacity and knowledge sharing on specific regulatory issues. Finally, the project provided training to MCIT staff on topics related to ICT policy, broadband strategy and policy development, and telecommunications policy. The completed TA to MCIT included (i) tender preparation for fiber optics network deployment; and (ii) Support for Afghanistan Faiz Satellite Communication Operations.

Outcome

- The technical assistance combined with support from other donors involved in the ICT sector in Afghanistan contributed to the adoption of the “Open Access Policy” in October 2016 (ICR para 34). The policy aimed to develop the telecommunications sector by promoting open access and offering competitive provisioning in fiber optics and broadband sectors. The policy sought to: (i) encourage owners of communications infrastructure to share their network resources; (ii) determine conditions for



nondiscriminatory access to infrastructure; and (iii) stipulate that pricing for access should be negotiated by the parties involved, except for Afghanistan Telecom's (Aftel)'s tariff which was to be based on incurred cost and ATRA's guidance, due to Aftel's significant market power (ICR para 34).

- The newly installed fiber optic backbone network connected five provincial capitals and 13 districts that were previously unconnected. The fiber optics were deployed by six local companies (ICR para 36). The fiber optic backbone has higher capacity i.e. it carries approximately 45 Gbit/s of internet traffic, far more than the previous microwave-based network (tens of Mbit/s range).
- There was an increase in the access to internet services. The number of subscribers per 100 people increased from 3 (baseline - 2011) to 25 (2017) far exceeding the target of 10.
- Internet access was increased significantly, from 15,000 (baseline as of April 25, 2011) to 3,500,000 (as of December 31, 2017), far surpassing the target of 50,000. This signified a 200-fold increase in the number of internet users in new geographical areas (the number of people who reside in the provinces that are newly connected by fiber optics network). Based on the Bank's experience in other countries this was not given much thought as it was so far off reality for Afghanistan.
- There was an increase in the access to telephone services. The number of fixed telephone lines and mobile cellular phone subscriptions per 100 people increased from 55 (baseline - 2011) to 85 (2017) achieving the target of 85.
- The internet tariff was substantially reduced by more than 90 percent from US\$450 (baseline as of April 25, 2011) to US\$37 (as of December 31, 2017), far surpassing the target of US\$250.

Rating

Substantial

Objective 2

Objective

Mainstream the use of mobile applications in strategic sectors in the government.

Rationale

The theory of change shows that expanding connectivity increases the reach of high-quality mobile telephone and internet services to citizens throughout the country, and therefore is critical to achieving the objective of mainstreaming the use of mobile applications.



Outputs

The project provided TA assistance for the creation of the “Service Delivery Platform (SDP)”, a technical architecture that houses various mGovernment applications. In total, thirty m-apps for 17 government agencies were developed. These m-apps selected were expected to provide key public services to citizens.

To create the enabling environment for mGovernment, the project focused on the formulation of strategy mGovernment strategy and roadmap and the provision of training. In total the project trained 189 government Chief Information Officers (CIOs) and other officials, far exceeding the target of 100. This included 30 officials from the provincial governments. Forty CIO level officials were trained in Turkey. The training was provided in the following areas: (i) national, organizational, and sectoral issues (national ICT strategy, transformation of public sector and change management, and the ICT and mobile sectors); (ii) e-Government and m-Government; (iii) mainstreaming of m-Government (user-centric approach, capacity building, usability and adoption, priority applications and services); (iv) technologies (telecommunications network; devices); and (v) practice presentations and demonstrations.

The Innovation Support Program (ISP) to develop the m-apps did not generate much interest and was eventually dropped (ICR para 45).

Outcome

Mainstreaming m-apps required developing and launching the SDP capable of handling apps as needed by strategic sectors. The SDP and associated m-apps were completed. However, the launch of the m-apps was delayed. It took MCIT almost three years to negotiate with all mobile operators and obtain signed memoranda of understanding. The negotiations took longer than expected as the operators cautiously considered how they would collaborate with 17 concerned ministries and the commercially viable of the engagement (ICR para 80). In addition, the launch is pending due to an ongoing audit by the Attorney General’s Office (as of July 2018) (ICR paras 43 and 44). The details of the audit inquiry were not made available to the Bank team (ICR para 80). The task team said that the audit has been completed. However, the letter from the auditor to the network provider has not been sent. So far, the launch of m-apps has not occurred. Five m-apps were piloted prior to the audit and connected directly to the SALAM network, but the number of transactions was limited during this short period (ICR para 44). The TTL confirmed that they were below the project end target of 150,000.

Rating

Modest

Objective 3



Objective

Support the development of the local Information Technology (IT) industry.

Rationale

Outputs

The project provided support for the development of ICT policy. The policy was prepared and at the time of the writing of the ICR was being translated into the local language for submission to Ministry of Justice, and to the Cabinet/Parliament.

To develop the ICT skills, the curricula, 'Advanced-Level IT Training for IT Professionals' was prepared in consultation with the officials from academia and the private sector who identified the ICT-related skills needed in Afghanistan. The courses included several specializations, including but not limited to: systems administrator, Microsoft technologies specialist, web design and development specialist, networking and cyber security specialist, database administrator, software development specialist (ICR para 50). A total of 2,352 people were trained, achieving the revised target of 2,025 and original target of 1,500. The target was increased from 1,500 to 2,025 in February 2016, because 1,500 people had been trained in ICT skills, and an additional 500 youth (including 200 women) were trained by June 2016.

The "incubator program" was successfully implemented by MCIT's ICT Institute and provided entrepreneurship support to young Afghanistan-based technology startups with office space and facilities, mentoring and coaching services and business advisory services.

The project developed a business plan for but was unsuccessful in developing the ICT village, an attractive location for Afghan ICT firms. This was mainly due to the deteriorating security situation, which made the establishment of the village unfeasible (ICR para 52).

Outcome

By project closing, the ICT Policy prepared had not been adopted by the GoIRA. The ICR notes (para 57) that it is expected to be adopted by January 2019.

The trainees found the ICT skills training program worthwhile. According to the follow-up survey conducted by MCIT after the training, about 40 percent of the trainees were hired for jobs in the ICT field, and about 70 percent were hired for jobs (by May 2018). The lack of hiring of all trainees may be due to the specific characteristic of Afghanistan's labor market which tends to favor expatriates to fill skilled- and semi-skilled jobs, making it more difficult for local workers (particularly those trained in Afghanistan) to find employment opportunities in the ICT sector (ICR para 51).

The "incubator program" graduated 30 business units (exceeding the target of 10) of which 21 were active at the time of the writing of the ICR. The estimated average income of these companies is about \$1,500 per



month. These companies created job opportunities for 248 employees, (207 males, and 41 females). Since the departure of the incubator manager (an international consultant), the program is being managed by MCIT. After project close, five companies graduated from the program and by May 2018 another five were being supported.

Rating
Substantial

Rationale

The project resulted in expanding connectivity, developing the platform for mobile apps, and assisted in the fostering the development of the local IT industry. The mainstreaming of mobile apps was delayed because of an audit enquiry and was not done by project closure but according to the task team is expected soon.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic Analysis: The economic analysis carried out for the project focused on component 1, which amounts to about 60% of the total project cost. The results of the ex-ante economic analysis reported in the PAD (annex 10) showed a Net Present Value (NPV) of US\$27.01 million and an Internal Rate of Return (IRR) of 7.45 percent. The ICR (para 61) pointed out that at appraisal an incorrect formula was used to calculate the NPV, which was only US\$0.01, while the IRR was 7.45 percent. During the meeting with the task team it was confirmed that the recalculation of appraisal NPV in the ICR also included a mistake and that the correct NPV was negative (-US\$8.9 million) at appraisal. This happened because the PAD and the ICR confused expenditures and cash flows in the calculation of the NPV.

For the ex-post economic analysis, the ICR followed the structure of the cost-benefit analysis at appraisal but updated the number of users, the bandwidth required, and the cost of internet. The task team confirmed that the number of users was updated based on the actual 3G users in the project area until 2017 and using a logarithmic approximation curve for the projections until 2022. The growth rates obtained in terms of users are in line with the growth rates in other countries in the region, such as Iraq and Kyrgyzstan. For the bandwidth, new assumptions were made because of the strong increase in the internet traffic on the newly installed fiber optic backbone reported in the ICR (para 37). The cost of the internet assumed at appraisal was reduced by 20% given important cost reductions in recent years (para 35 ICR). The other assumptions used at appraisal



were not changed. The result of the ex-post analysis showed a NPV of US\$12.7 million and an IRR of 20 percent.

Administrative efficiency: Due to insufficient procurement skills as well as security issues and lack of road alignments, which required a change in the fiber optic network route, there were delays in the construction of fiber optic network. Nevertheless, the actual costs for this component stayed largely the same. At appraisal the possibility of lower costs due to simultaneously laying the backbone network with the construction of roads was envisaged. These savings did not materialize.

Efficiency Rating

Substantial

a. If available, enter the Economic Rate of Return (ERR) and/or Financial Rate of Return (FRR) at appraisal and the re-estimated value at evaluation:

	Rate Available?	Point value (%)	*Coverage/Scope (%)
Appraisal	✓	7.45	60.00 <input type="checkbox"/> Not Applicable
ICR Estimate	✓	20.00	60.00 <input type="checkbox"/> Not Applicable

* Refers to percent of total project cost for which ERR/FRR was calculated.

6. Outcome

The relevance of objectives is rated high as according to the Country Partnership Framework, the expansion of telecom connectivity is key to improving Afghanistan’s growth prospects and ensuring greater regional integration. The project efficacy is rated substantial as the project achieved its objectives of expanding connectivity, developing the platform for mobile apps, and assisted in the fostering the development of the local IT industry. The mainstreaming of mobile apps was not done by project closure but is expected soon. The project efficiency is rated substantial. Project outcome is rated moderately satisfactory.

a. Outcome Rating

Moderately Satisfactory

7. Risk to Development Outcome



There are several risks that can influence the development outcome:

Lack of Aftel capacity for maintenance of the fiber optic network. The newly built fiber optic network was handed to Aftel for operation and maintenance. However, Aftel lacks the capacity (equipment, skills, maintenance program) to make timely repairs of the fiber optic network (ICR para 101).

Effective implementation of the Open Access Policy. The ICR notes that (para 101) MCIT and ATRA may not be able to effectively implement the Policy for security reasons.

User adoption of online public services. Unless effective public awareness campaigns are undertaken, citizens and businesses may not easily or readily adopt online public services through the m-apps developed under the Project.

Need for continuing skills training in the ICT sector. ICT skills training and the incubator program were successfully conducted, but the rapid advances in technologies and in the ICT sector will cause the trainees' and the incubator's skills to become obsolete.

Security challenges. Given Afghanistan's sensitive security situation, there is a significant risk that the development outcomes may not be sustained overtime. During implementation "the deteriorating security situation" resulted in the scrapping of the ICT village; the change in the route of the fiber optic line; and inability to get basic data for M&E (related to bandwidth needed per user, revenue per bandwidth, etc).

8. Assessment of Bank Performance

a. Quality-at-Entry

The project was based on Bank's experience in providing support to similar projects across regions, including in Bangladesh, Ghana, and Kenya. It was also built on the World Bank's previous engagements in Afghanistan's ICT sector. These included the Emergency Communications Development Project (P083720, IDA-38250, \$24 million, closed in September 2009, rated moderately satisfactory), ARTF supported activities (P090933, Recipient-executed, \$6 million, closed in July 2004), and the Strengthening Telecommunications Regulation (P082131, \$0.47 million PPIAF-funded, closed in July 2004) (ICR paras 11 and 12). The task team had sufficient experience in telecommunications infrastructure building, online government services, and ICT industry promotion, which resulted in an appropriate project design and preparation. The project's strategic relevance, environmental and social development issues, fiduciary aspects, implementation arrangements, and risks were satisfactorily addressed at entry (para 97 ICR). However, as shown previously in the section on Risk to Development Outcome, there were some shortcomings in the risk estimation and mitigation, including a serious underestimation of the complexity and time required to mainstream m-apps. There were also weaknesses in M&E design as pointed out above (Section (9)), and broad band maintenance was given insufficient attention in the design stage. The



Emergency Paper in para 37 pointed out that Afghan Telecom (Aftel) or its successor would be in charge for operation and maintenance and that it had successfully operated the first Phase of the nationwide fiberoptic network. Hence, technical risks were limited by the security situation in the project areas. However, the ICR (para 101) noted that Aftel lacks the capacity (equipment, skills, maintenance program) to make timely repairs to remedy potential malfunctions of the fiber optic network.

Quality-at-Entry Rating Moderately Satisfactory

b. Quality of supervision

The ICR (para 97) emphasizes that despite the challenging and fragile situation due to the level of capacity, security, etc., the Bank's task team closely supervised project implementation. The frequency of supervision was adequate (approximately twice a year), except during times when the security status prevented supervision missions from traveling to Kabul. The supervision was supplemented by remote support to the client. There were two changes in Task Team Leaders (TTLs) during implementation, but MCIT and the PMO agreed that that World Bank support was suitable, with smooth transitions between TTLs (ICR para 98). However, The Bank team could also put more pressure on the PMO to rehire the procurement specialist (see section 10 b on procurement).

Quality of Supervision Rating Satisfactory

Overall Bank Performance Rating Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The project indicators were adequate to assess the achievement of the first two sub-objectives, which were clearly defined. However, the ICR (para 84) mentioned that some of the end targets were too conservative. In addition, some so-called PDO indicators were output indicators in nature while some intermediate indicators were actually outcome indicators. For the third sub-objective of "supporting the local IT industry development", which is a broad concept, the PDO and one of the intermediate indicators were output indicators and the second intermediate indicator, which was more outcome related, was dropped during implementation. Therefore, these indicators were not adequate to assess the sub-objective's achievement.

The project also had two so-called overarching indicators, one being a core indicator (number of direct project beneficiaries, of which the percentage of female beneficiaries) and one, i.e. Revised ICT Policy adopted by GoIRA, "to assess all technical assistance and/or capacity building subcomponents under each component"



(ICR para 84). The ICR also correctly pointed out that the achievement of the latter depended on external factors.

b. M&E Implementation

The ICR mentioned (para 87) that the PMO collected and reported the data related to the indicators and that the project also had an M&E specialist. The ICR also pointed out (para 84) that third-party data or analyses are significantly lacking in the country due to the security situation and hence project end data were confirmed through interviews.

c. M&E Utilization

The ICR claimed (para 87 and 88) that the information on indicators helped to assess progress during implementation, informed MCIT and ATRA on strategic decisions and operations, and enabled the PMO and the World Bank task team to monitor the project's implementation and take timely corrective actions. However, no example of such timely corrective actions is provided.

M&E Quality Rating

Modest

10. Other Issues

a. Safeguards

The Project was classified as Environmental Category B as most of the impacts related to trench digging for laying fiber optic cables (Emergency Paper para 43). Only Environmental Assessment (OP/BP 4.01) safeguard policy was triggered. An Environmental and Social Management Plan (ESMP) was prepared to mitigate Environment, Health and Safety aspects of small construction associated with the deployment of the backbone component of the project. The Emergency Paper also stated that the contractors deploying the backbone were expected to prepare project specific ESMPs as per contract agreement.

No land acquisition, no resettlements, and no damage of cultural properties was expected at appraisal as the fiber optic backbone was expected to be laid alongside the existing roads and using the rights of way which were recognized by the GoIRA .

The project had a number of inadequacies in terms of safeguards implementation (ICR para 91):



- According to the ICR, there is little information available on the social and environmental safeguards implemented by the contractors. Also, the World Bank task team did not receive periodic reports on safeguards compliance and monitoring of Environmental and Social Management Plans (ESMP).
- The PMO did not conduct effective training of the contractors on safeguards implementation. The occupational safety and health concerns raised by the World Bank task team such as adequate breaks for workers and workers not wearing a safety jacket, etc.) were not fully considered.
- The Grievance Redress Mechanism was not fully functional at the initial stage of the implementation, but later the mechanism worked effectively.

Although the Involuntary Resettlement (OP4.12) was not triggered at appraisal, the ICR (para 91) reports that the PMO made great efforts to document land transactions (transferred, purchased, or voluntarily donated) for deploying of fiber optics. The PMO also obtained the confirmation from the Afghanistan Independent Land Authority of the purchase of Yazdan Chashma land.

b. Fiduciary Compliance

Procurement: The procurement capacity was weak throughout project implementation. At appraisal, an assessment of the procurement capacity of Ministry of Communications and Information Technology (MCIT) was conducted by the Bank. The assessment found that MCIT procurement capacity was very limited. Subsequently, a procurement specialist was hired within the Project Management Office (PMO). The procurement specialist remained until mid-term (January- February 2014). The PMO did not fill the procurement specialist position and used a contractor (project management specialist), and other staff from the PMO to carry out the project's procurement functions. These staff had limited experience and knowledge of procurement. The Bank task team insisted that the matter regarding the hiring of a procurement specialist be addressed, but the issue remained unaddressed through project's closing (ICR para 94).

The ICR reports (para 95) that the PMO completed all procurement processes and there was no misprocurement. However, the lack of specialized procurement skills caused problems and delays in the procurement of activities related to the fiber optics construction (subcomponent 1.1). These were completed and the fiber optics was successfully handed over to Aftel for maintenance and operation.

Financial Management: The ICR reports (para 93) that the Project Management Office (PMO) lacked a sophisticated financial management system. However, the financial management specialist 'issues tracking sheet' to monitor issues and deadlines, and identify concerned parties, etc., to conduct financial management efficiently. The Financial Management specialist at the PMO was knowledgeable and experienced with fiduciary aspects of project management. The ICR also reports that the PMO maintained thorough financial management arrangements and complied with reporting and accounting requirements stated in the Grant Agreement. The task team confirmed that the project audits were conducted on time and they were unqualified



c. Unintended impacts (Positive or Negative)

d. Other

The ICR reports (para 99) that the relatively successful implementation of this project resulted in the GoIRA's request for the Afghanistan: Digital Central Asia South Asia Project, which was approved by the Board in March 2018.

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Moderately Unsatisfactory	Moderately Satisfactory	The relevance of objectives is rated high as according to the Country Partnership Framework, the expansion of telecom connectivity is key to improving Afghanistan's growth prospects and ensuring greater regional integration. The project efficacy is rated substantial as the project achieved its objectives of expanding connectivity, developing the platform for mobile apps, and assisted in the fostering the development of the local IT industry. The mainstreaming of mobile apps was not done by project closure but is expected soon. The project efficiency is rated substantial. Project outcome is rated moderately satisfactory.
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	---
Quality of M&E	Modest	Modest	---



Quality of ICR	Substantial	---
----------------	-------------	-----

12. Lessons

The following four key lessons are taken from the ICR with some modification by ICR reviewer:

- **In a country with capacity limitation and serious security issues that do not allow for much handholding, the project should be kept simple.** Project complexity, especially in the context of Fragility, Conflict, and Violence (FCV), may negatively affect the outcomes. Given the security and governance issues in Afghanistan and the limited and indirect access of Bank staff to provide implementation support, the challenges in fully achieving all three objectives were huge and difficult to foresee at appraisal.
- **The transfer of skills from consultants to the agency's staff is important.** PMO's benefit from consultants to support project implementation; yet long-term dependence on consultants may hinder capacity building within the government agencies. The consultants in the PMO should be hired to perform high-level strategic tasks, one of which should be training and mentoring (permanent) staff in the implementing agencies.
- **Cross-sector coordination is important to make sure a 'dig-once' policy is implemented.** Ensuring a 'dig-once' policy in transport and electricity projects can improve efficiency and possibly save a significant amount of money on the deployment of fiber optics. For such a policy to happen, good communication is important to ensure that decisions at the central government level are transmitted to the implementation level. For example, the Salang-By-pass Road construction, one of the components of the Afghanistan: Trans-Hindukush Road Connectivity Project (P145347, IDA D0930, \$250 million, approved on October 20, 2015, effective on January 17, 2016), includes the laying of communication/fiber optic ducts based on detailed discussion between the Bank, Ministry of Public Work and MCIT.
- **Special attention should be paid to the development of M&E Framework in FCV countries.** Especially in FCV countries that have major security concerns it is challenging to identify M&E indicators that are trackable. It is important to ensure that the M&E framework is designed to capture the most relevant data that will feed into the evaluation of the project's PDO. This underscores the importance to formulate the theory of change, to identify the project's achievements, and methods by which the achievements will be met. It helps build consensus among all project stakeholders in the project's design, and casts a light on binding constraints to achieve expected outcomes.

13. Assessment Recommended?

No



14. Comments on Quality of ICR

The ICR provides a frank analysis of the project context, preparation and implementation. The ICR is results-oriented and the narrative on achievement of objectives sometimes confuses the outputs and outcomes but provide additional evidence in support of the achievement of some project objectives. The ICR is internally consistent and in compliance with OPCS guidelines. The lessons learned in the ICR are rich and based on evidence.

The ICR contains some omissions: (i) there is a lack of detailed information on the need for land acquisition, which is especially important since the resettlement policy was not triggered. There is limited information on environmental safeguard compliance on the ground probably due to security situation; and (ii) the M&E section is well developed and pointed out many shortcomings but failed to identify the mix-up between output and outcome indicators and the inadequacy of the indicators to measure the achievement of the third objective. The ICR did also not report on financial audit reports submission and qualifications.

a. Quality of ICR Rating

Substantial