



## 1. Project Data

<b>Project ID</b> P123093	<b>Project Name</b> WARCIP APL2 - Mauritania-Togo
<b>Country</b> Western and Central Africa	<b>Practice Area(Lead)</b> Digital Development

<b>L/C/TF Number(s)</b> IDA-52530,IDA-52550,IDA-68780	<b>Closing Date (Original)</b> 30-Nov-2018	<b>Total Project Cost (USD)</b> 60,180,638.68
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<b>Bank Approval Date</b> 30-May-2013	<b>Closing Date (Actual)</b> 31-Jan-2022
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	<b>IBRD/IDA (USD)</b>	<b>Grants (USD)</b>
Original Commitment	60,000,000.00	0.00
Revised Commitment	64,933,236.95	0.00
Actual	60,263,954.26	0.00

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## 2. Project Objectives and Components

### a. Objectives

This project in the Islamic Republic of Mauritania (hereafter Mauritania) and Republic of Togo (hereafter Togo) was the second phase of the West Africa Regional Communications Infrastructure Program (WARCIP). This program was implemented as a series of Adaptable Program Loans (APLs) and a series of projects (SOPs) in three phases to contribute to increasing the geographical reach of broadband networks and reducing the costs of communications services in West Africa. The first phase was in Liberia, Sierra Leone, Guinea, The Gambia, Burkina Faso and Benin. The third phase was in Guinea Bissau.



The Project Development Objective (PDO) as stated in the Loan Agreements for Mauritania and for Togo (Schedule 1, page 6) and in the Project Appraisal Document (PAD, page 7) was:

**"To increase the geographical reach of broadband networks and to reduce the costs of communications services in the territories of Mauritania and Togo".**

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

Yes

**Did the Board approve the revised objectives/key associated outcome targets?**

Yes

**Date of Board Approval**

28-Oct-2020

**c. Will a split evaluation be undertaken?**

No

**d. Components**

There were three components (PAD, pages 8 - 9).

**1. Supporting Connectivity.** The total estimated cost at appraisal for Mauritania and Togo was US\$37.50 million. The actual cost was US\$49.40 million. The estimated cost for Mauritania was US\$21.50 million. The actual cost was as estimated. The estimated cost for Togo was US\$16.0 million. The actual cost was US\$27.90 million.

This component financed these activities on the basis of an open access principle and public-private-partnership (PPP) structure: (i) building four fiber optic missing links in Mauritania for a total of 1,710 kilometer (km) cross-border links with the landlocked countries of Mali, Niger and Burkina Faso in West Africa and with Morocco in North Africa for providing international connectivity to most provincial capitals in the sub region; (ii) establishing national and regional Internet Exchange Points (IXP) in a neutral carrier building in Mauritania and Togo; and (iii) supplying international bandwidth in the carrier hotel of Togo.

**2. Creating an Enabling Environment for Connectivity.** The total estimated cost at appraisal was US\$16.80 million. The actual cost was US\$8.50 million. The estimated cost for Mauritania was US\$5.3 million. The actual cost was as estimated. The estimated cost for Togo was US\$11.50 million. The actual cost was US\$3.20 million.

This component financed activities aimed at creating an enabling policy and regulatory environment for sector efficiency. Activities included: (i) support for the transaction design and operating model for ownership and management of the infrastructure developed in component one; (ii) Technical Assistance (TA) for improving the policy and regulatory frameworks; and (iii) TA for institutional strengthening of the regulators and relevant ministries in both countries.

**3. Project Implementation.** The total estimated cost at appraisal (including contingencies) was US\$5.70 million. The actual cost was US\$7.10 million. The estimated cost for Mauritania was US\$3.20 million. The



actual cost was as estimated. The estimated cost for Togo was US\$2.50 million. The actual cost was US\$3.90 million. This component financed the costs of setting the Project Implementation Units (PIUs) and costs of audits, monitoring and evaluation and environmental and social studies.

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

**Project cost.** The total estimated cost at appraisal for the two countries was US\$92.50 million. The actual cost was US\$60.3 million (ICR, page 2).

**Project financing.** The project was financed by an IDA Credit of US\$60.00 million (US\$30.00 million each for Mauritania and Togo). Additional financing (AF) of US\$11.00 million was approved for Togo on October 28, 2020. With this, the Bank financing for Togo was US\$71.00 million. The total amount disbursed was US\$60.26 million. The amount disbursed for Mauritania was US\$26.80 and for Togo US\$33.43 million. An unused US\$4.50 million of the IDA financing for Togo was cancelled.

**Co-financing** of US\$19.20 million was planned at appraisal for Mauritania from the European Investment Bank (EIB). According to the clarifications provided by the team, the EIB provided the co-financing as planned. According to the clarifications provided by the recipient, the EIB financing is partly being used for the construction of the datacenter and that currently there are no plans to sign any other contracts for this financing.

**Recipient contribution.** The recipient contribution from Mauritania was planned at US\$2.30 million at appraisal. The team clarified that the recipient contributed US\$2.30 million, as planned.

**Dates.** The project, which was approved on May 30, 2013, became effective on December 16, 2013, and was scheduled to close on November 30, 2018. However, the project closed three years and two months behind schedule on January 31, 2022 (the reasons for extension are discussed under "other changes" below).

**Other changes.** There were seven Level 2 restructurings. The changes made during implementation are listed below in sequential order:

The following main changes were made with **the first project restructuring on November 7, 2017**.

- **For Mauritania**, the bank financing for the activity relating to constructing the carrier hotel/data center was cancelled. As envisioned at design, this activity was to be co-financed by the Bank and the EIB. This activity was eventually fully financed by the EIB. The project closing date was extended by a year from November 30, 2018, to November 30, 2019, for completing the ongoing activities that had been delayed due to the delays in signing the construction contract for the fiber optic links.
- **For Togo**, the closing date was extended by eighteen months from November 30, 2018, to May 31, 2020, due to the delays in constructing the carrier hotel.

The closing date for Mauritania was extended by nine months from November 30, 2019, to August 31, 2020, **through the second restructuring on October 20, 2019**, to provide extra time for completing the fiber optic backbone links and for complying with the environmental safeguard's commitments.



The closing date for Mauritania was extended by three months from August 31, 2020, to November 29, 2020, through **the third project restructuring on March 26, 2020**, to address the delays caused by the COVID -19 pandemic.

The closing date was extended for Togo by an interim five months from July 31, 2019, to October 31, 2020, **through the fourth project restructuring on May 28, 2020**, to allow for confirmation of the financing needs prior to the AF.

**An AF of US\$11.00 million (Euro 9.4 million) for Togo was approved on October 28, 2020** (with the same closing date as the Togo portion of the parent project) to finance the financing gaps for the construction of the hotel carrier that was higher than expected due to the political situation in Togo at that time.

The following changes were made through the **fifth project restructuring on October 28, 2020**.

- For Mauritania, the closing date was extended by a year from November 30, 2020, to November 30, 2021, for completing the ongoing activities.
- For Togo, the closing date was extended by a year from October 31, 2020, to October 31, 2021, for completing the carrier hotel activity.

**Through the sixth project restructuring on October 28, 2021**, the closing date was extended for Togo by three months from October 31, 2021, to January 31, 2022, for completing the ongoing activities that had been delayed due to a combination of factors including, impact of the COVID - 19 pandemic, unusually wet season, socio-political challenges in Togo and global disruptions in supply chain that delayed the delivery of equipment.

**Through the seventh project restructuring on January 31, 2022**, an unused US\$4.50 million of the IDA financing was cancelled for Togo.

**Split rating.** The review of the results framework in Togo replaced "Access to internet services" by two new indicators "Fixed Internet Retail Price" and "Mobile Internet Retail Price", which is more aligned with the project PDO of reducing the costs of communication services and allowed for a more accurate monitoring of the decrease of internet costs across both the fixed and mobile segments. Therefore, a split rating will not be used.

### 3. Relevance of Objectives

#### Rationale

#### Sector context.

**Mauritania.** Mauritania had fully liberalized its telecom sector and privatized the incumbent operator in 2001. However, although the cellular sector was competitive (mobile penetration rate of 113%), the fixed network penetration was low (with only 3% penetration). Although service prices had declined since 2009, further decrease in prices was deemed to be necessary in view of the population's limited purchasing power. The challenges facing the Information and Communication Technology (ICT) sector included: (i)



limited national fiber optic backbone that did not reach all the provincial capitals; (ii) international connectivity access via Senegal and the South Atlantic 3/ West Africa Submarine Cable (3/WASC) was costly and vulnerable to service interruptions; (iii) the lack of an Internet Exchange Point (IXP) raised demand for international connectivity, increased its prices and aggravated the impact of disruptions on local content and services. These weaknesses led to lower internet adoption, poor service quality and low fixed and mobile broadband penetration.

**Togo.** With a mobile penetration rate of 54% in 2012, the challenges facing the ICT sector in Togo included: (i) the mobile market was under a duopoly regime; (ii) limited Internet subscribers, with internet and broadband penetration rates of 6% and 1%, and growth in the industry was constrained due to limited access and affordability considerations; (iii) business users and private citizens paid US\$160 per month for fixed broadband access, while consumers in Senegal and Ghana paid only US\$29 and US\$64 respectively.

**West Africa Regional Strategy.** The PDO was well-aligned at appraisal with the West Africa Joint Poverty Reduction Regional Strategy. The strategy proposed four strategic directions for regional integration, including developing interconnected infrastructure. The PDO was aligned with the Economic Community of West African States (ECOWAS) Regional Infrastructure Development Master Plan and its strategic framework 2015- 2020, which identified some of the challenges faced by the ICT sector in West Africa.

**Mauritania Government Strategy.** The PDO was consistent at appraisal with the Government's 2012-2016 ICT strategy and with the Government's Policy Statement for the telecommunications sector adopted in January 31, 2013. The PDO continues to be relevant to the Government's 2019 *Strategy for broadband promotion and universal access* and to the *Mauritanian Digital Agenda for 2022 - 2025*. This agenda highlighted the role of the digital sector for modernizing the administration, social inclusion and strengthening competitiveness.

**Togo Government Strategy.** The PDO was well-aligned with Togo's 2018 - 2022 Development Plan and the new 2025 Togo Digital Strategy. Both the plan and the strategy put digital transformation at the forefront of the national agenda.

**World Bank Regional Strategy.** The project was fully aligned at appraisal with the Bank's 2018 Regional Integration Assistance Strategy (RIAS) and its Update for 2021-2023. The update focused specifically on connectivity. The project was aligned with the connectivity pillar of the Bank's ICT strategy approved in 2012, which aimed to scale up affordable access to broadband internet and supporting PPP to promote access to all.

**World Bank Mauritania Strategy.** At appraisal, the PDO was consistent with pillar one of the Country Partnership Strategy (CPS) for 2013 - 2016: Competitiveness and Growth. The Bank's current Country Partnership Framework (CPF) for 2018-2023 articulated the need for promoting economic transition for diversified and resilient growth and strengthening economic governance and private sector-led growth.

**World Bank Togo Strategy.** The project was fully aligned with pillar one of the Bank's second Interim Strategy Note (ISN) for 2012-2013 at appraisal. This pillar articulated the need for deepening the economic recovery process and promoting sustainable development through improving access to productive infrastructure services. The PDO was aligned with the current Country Partnership Framework (CPF) for 2017- 2020 (extended to 2022). The focus area one of the CPF identified "unreliable internet and costly telecommunications" as a constraint for "private sector performance and job creation".



**Previous Bank experience.** This project was the first Bank-financed ICT project in Mauritania and Togo. The project design was similar to that of the other countries in the WARCIP program and included both ICT infrastructure investments and TA for improving the policy and regulatory framework for private sector participation in the sector. As indicated in the theory of change discussed in section four below, the outputs of the ICT infrastructure investments and the TA activities were likely to increase the geographical reach of broadband networks and reduce the costs of telecommunications services in Mauritania and Togo. Given the current relevance of the PDO to the Government's and the Bank's regional and the country strategies for Mauritania and Togo, the relevance of the PDO is rated as high.

## Rating

High

## 4. Achievement of Objectives (Efficacy)

### OBJECTIVE 1

#### Objective

PDO 1. To increase the geographical reach of broadband networks in Mauritania and Togo.

#### Rationale

**Theory of change.** The outputs such as deploying a fiber optics backbone, Internet Exchange Point (IXP), carrier hotel and data center building were intended to increase connectivity in Mauritania. The outputs such as constructing a carrier hotel and operationalizing the IXP were intended to support connectivity in Togo. Assuming that the open access principle and PPP increases competition in the market, the outputs were likely to increasing the geographical reach of broadband networks. The causal links between activities, outputs and outcomes were logical, and the intended outcomes were monitorable.

**Outputs** (ICR, pages 16 - 18 and page 48).

#### Mauritania.

- In 2010, Mauritania signed a loan agreement with the EIB to acquire direct connection to the Africa Coast to Europe (ACE) submarine cable. The cable was operational in December 2012.
- Five backbone links were completed as targeted. The activities included: (i) laying of 1,710 km of fiber optic cable; (ii) installation of 1,185 rooms for establishing data centers and 20 transmission equipment; and (iii) technical audits by an international firm of the five sections. The national and regional IXP was established in a neutral carrier hotel building.
- Localities with broadband internet access increased from 144 in 2010 to 221 in December 31, 2021, exceeding the target of 200.
- The project provided these activities: (i) TA for creating the Digital Infrastructure Development Company and establishing the PPP arrangement for managing the fiber optic links; (ii) a study for constructing the technical building for the carrier hotel/data center; (iii) financing studies for elaborating



a regulatory framework for broadband, the legal framework for the Mauritanian Information Society, ICT sector taxation, a feasibility study for a second submarine mobile connection, a national strategy and roadmap for Mauritania's transition from analog to digital television and feasibility studies for implementing the e-government and a national incubator.

- The project supported implementation of platforms for modernizing the Mauritanian administration. These included: (i) a national ICT observatory; (ii) implementing domain names and their management; (iii) a study for the implementation of a computer emergency response team (CERT) and a computer security incident response team (according to the clarifications provided by the recipient, the implementation would be done under the WARDIP program); (iv) acquiring a secure platform to host applications implemented to counter the impact of the COVID-19 pandemic; (v) implement a platform for digitizing administrative procedure; (vi) implementation of a task management system for the line ministry; and (vii) implementation of websites for government ministries.
- The project financed a five-year training program. The PIU staff were trained on topics pertaining to safeguards and fiduciary management. There were no targets for this indicator.
- According to the additional information provided by the recipient, the project set up a connection to Selibabi near the border, which is connected to the Senegalese and Malian network by the OMVS link.

**Outputs** (ICR, pages 16 - 18 and page 48).

#### **Togo.**

- Togo's direct connection the West Africa Cable System became operational on May 11, 2012.
- These activities were completed as targeted. (i) the Carrier Hotel was established; and (ii) the IXP was completed and operational.
- The PPP was signed between the state-owned Enterprise Digital Infrastructure Company and the private partner selected to manage the carrier hotel. The purchase of international capacity for the carrier hotel was not completed due to a series of non-compliances on the part of the received bidders. According to the information provided by the team, Togo is now connected to two new submarine cables (deployed by the telecom operator Moov, which is also active in the Togolese telecom market, and Google Equiano).
- The project provided TA studies and strategic plans for promoting open access and support to the sector, both technically and in terms of laws and regulations. This included: (i) TA for managing and operationalizing the carrier hotel under a PPP arrangement; (ii) TA for creating a state-owned Special Purpose Vehicle (SPV) called the Digital Infrastructure Company; (iii) TA for supporting policy priorities in application of the ICT strategy that helped the Government in elaborating the Togo Digital strategy; and (iv) providing spectrum management equipment to help the sector regulator monitor the efficient use of spectrum resources. However, the equipment was not delivered before the project closing date and hence this activity was cancelled. According to the clarifications provided by the team, the regulator intended to finance this activity.
- Experts from the Regulatory Authority of Togo (ARCEP) were trained by the Ivorian Frequency Management Agency (AIGF) and by the National Radio Frequency (ANFR) in France and experts from the PIU (on fiduciary management and an IT specialist) were trained in Morocco. No targets were specified for these indicators.
- According to the ITU, the number of people using the internet increased from 7.1% in 2015 to 24% in 2020. There were no targets for this indicator.



## **Outcomes.**

The outputs described above were expected to increase the geographical reach of broadband networks through: (i) increasing the volume of international traffic (measured in kbits per second per person); (ii) increasing access to broadband internet services (number of subscribers per 100 people); and (iii) increase access to telephone services (fixed mainlines plus cellular phones per 100 people).

### **Mauritania.**

- The volume of international traffic (internet, telecoms and data) increased from 6 kbits per second per person in 2011, to 19.61 kbits when the project closed, exceeding the target of 11 kbits.
- The access to broadband internet services (number of subscribers per 100 people) increased from two in 2011 to 70.9 when the project closed, exceeding the target of 11. According to the International Telecommunication Union (ITU), the share of population who had at least 3G mobile coverage increased from 0% in 2014 to 44% in 2020.
- The access to telephone services (fixed mainlines + cellular phones per 100 people) increased from 100 in 2011 to 151, exceeding the target of 124.
- 4,994,570 people benefitted from project activities, slightly short of the target of 5,061,125. 51% of the beneficiaries were women as targeted, (The beneficiaries were defined as the entire population of Mauritania (including all public and private sector enterprises such as wholesale and retail telecom operators, non-governmental organizations (NGOs), banks and other private sector establishments).

### **Togo.**

- The volume of international traffic (internet, telecoms and data) increased from 2.5 kbits per second per person in 2011, to 5.76 kbits when the project closed (target 6 kbits). The activity associated with purchasing international capacity for the carrier hotel/data center, (which would have further increased the volume of international traffic) was not successful when the project closed.
- The indicator associated with access to broadband internet services was not included for Togo.
- The access to telephone services (fixed mainlines + cellular phones per 100 people) increased from 48.9 in 2011 to 80.47, exceeding the target of 75.
- 5,790,000 people benefitted from project activities, slightly short of the target of 6,000,000. 43.90% of the beneficiaries were women, exceeding the target of 40% (the beneficiaries as defined above for Mauritania).

Given that the outcomes were realized for the most part, this review concludes that the project substantially contributed to increasing the geographical reach of broadband networks in both countries.

## **Rating**

Substantial

## **OBJECTIVE 2**

### **Objective**

PDO 2. To reduce the costs of communication services in Mauritania and Togo.



## Rationale

**Theory of change.** The outputs described above, together with the outputs of TA activities (such as establishing the Digital Infrastructure Development Company of Mauritania (SDIN), digital platforms and e-government services), were intended to improve the legal and regulatory framework for the sector. The outputs described above, together with the outputs of TA activities (such as operationalizing the carrier hotel, acquiring spectrum management equipment, establishing Special Purpose Vehicle (SPV) and signing the PPP contract), were intended to improve the legal and regulatory framework for the sector in Togo. Assuming that increased competition in the sector reduces costs, the outputs will aid in realizing the PDO in the two countries. The causal links between activities, outputs and outcomes were logical and the intended outcomes were monitorable.

**Outputs.** (ICR, pages 18 - 21).

The outputs discussed above were also relevant to this objective.

## Outcomes.

The outputs described above were aimed at reducing the average monthly price of international capacity linkage (E1 or 2Mbps) from the capital city to Europe (measured in US\$) in Mauritania. The outputs described above were aimed at: (i) reducing the average monthly price of international capacity; and (ii) reduce the fixed internet retail price and the mobile internet retail price in Togo.

### Mauritania.

- The average monthly price of international capacity linkage (E1 or 2Mbps) from the capital city to Europe decreased from US\$7,000 at the baseline to US\$54.7, far exceeding the target of US\$250.

### Togo.

- The average monthly price of international capacity linkage (E1 or 2Mbps) from the capital city to Europe decreased from US\$2348 at the baseline to US\$90, exceeding the target of US\$115.
- The fixed internet retail price in US\$ per Mbps decreased from US\$70 in 2011 to US\$22.44, exceeding the target of US\$46.
- The retail cost of mobile internet decreased from US\$2.6 in 2011 to US\$0.7, exceeding the target of US\$1.7.

It is difficult to determine the extent to which the results could be attributed to project activities, given the fast pace of changes in the ICT sector globally. However, it is reasonable to conclude that the project substantially contributed to realizing the outcomes in Mauritania and Togo.

## Rating

Substantial



## OVERALL EFFICACY

### Rationale

Given that the outcomes were realized, the overall efficacy is substantial.

### Overall Efficacy Rating

Substantial

## 5. Efficiency

### Mauritania.

**Financial analysis.** A financial analysis was conducted at appraisal for the investment in broadband infrastructure (accounting for 72% of the cost). The analysis assuming a 10% discount rate, showed that a period of 20 years will be necessary to achieve an adequate rate of return (PAD, paragraph 44). It showed an Internal Rate of Return (IRR) over 20 years of 11%, with a Net Present Value (NPV) of US\$2 million. The backbone work was completed at the end of 2021. The ICR (page 54) notes that an operating time of less than 18 months was too short to assess the return on a project with a 20 year life cycle. The ICR notes that there was no data to extrapolate the expected revenues and costs at project closure. Hence the NPV and ex post EIRR were not calculated.

**Administrative and Operational issues during implementation.** Procurement delays and delays associated with concluding the PPP process during the initial years, exacerbated by the impact of the restrictions following the COVID - 19 pandemic in the closing years (over which the project had no control), contributed to the time overrun in Mauritania.

### Togo.

**Financial analysis.** A financial analysis was conducted at appraisal for activities associated with carrier hotel/data center (accounting for 68% of the actual cost). The originally estimated cost of these activities was US\$6 million. The initial analysis showed an IRR over ten years of 26.6% and a NPV of US\$8.49 million. With AF, the total cost of these activities had increased to US\$23.7 million. This translated into a revised IRR of 26% and a revised NPV of US\$2.58 million. The carrier hotel was functional from January 2022. The ICR (page 57) notes that the operating time was too short to assess the return on investment. The ICR notes that though the IXP was inaugurated in December 2017, the cancellation of the activity related to the purchase of international bandwidth (discussed below) impacted on the IXP development plan and that there was no revenue information from the consortium running the IXP in Togo. Therefore, the NPV at closure and ex-post EIRR were not calculated.

**Administrative and Operational issues.** The unsuccessful call for tenders for international capacity - due to non-compliances on the part of the bidders - affected the outcome, as the purchase would have put the carrier hotel in a stronger position with prospective customers. Although the Digital Infrastructure Company of Togo



(SIN) was reviewing its business plan to make the carrier hotel more attractive to customers when the project closed, this plan was not shared by the Government.

The project cost increased by a significant amount during implementation due to the lower estimation of the cost of constructing the carrier hotel at appraisal, that necessitated a review of the technical requirements by the Government. This led to an almost doubling of the estimated cost at appraisal. The selected bid was also substantially higher (by US\$7.6 million) than the budget allocated to the activity. These factors led to the AF for the project. When the project closed, in addition to the non-completion of the activity associated with the purchase of international capacity for the carrier hotel, the activity associated with providing spectrum management equipment to help the sector regulator monitor use of spectrum resources was cancelled. An unused US\$4.50 million of the IDA financing for Togo was cancelled. Given the delays during implementation that were exacerbated by the restrictions in the wake of the COVID-19 pandemic, the project closed over three years behind schedule.

In sum, efficiency is rated as modest, mainly because of the shortcomings in Togo.

### Efficiency Rating

Modest

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	✓	18.00	70.00 <input type="checkbox"/> Not Applicable
ICR Estimate		0	0 <input type="checkbox"/> Not Applicable

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

### 6. Outcome

The project was highly relevant to the Bank strategies for Mauritania and Togo. Overall efficacy is substantial, as the outcomes were realized in both countries. Efficiency is modest mainly in view of the shortcomings in Togo. Taking these ratings into account, overall outcome is moderately satisfactory.

#### a. Outcome Rating

Moderately Satisfactory



## 7. Risk to Development Outcome

### Government commitment risk:

**Mauritania.** The risk to the sustainability of development outcomes is low. The ICR (paragraph 84) notes that risks that the government may decide to terminate the PPP contract with the International Mauritania and Telecom (IMT) and regain full control over the national fiber optic backbone, the risk of noncompliance of the IMT operator's commitments in terms of maintaining the fiber optic backbone and IXP and the risk of non-optimal use of IXP, is low given the Government's strong commitment to developing the ICT sector (demonstrated by the Government's pursuing ICT reforms through a third Development Policy Operation (DPO) and is also considering donor financing for digital infrastructure under a PPP approach for additional fiber optics with Bank financing, and EIB for a second submarine cable.

**Togo.** The risk to the sustainability of development outcomes is low. There are several submarine cables. The ICR (paragraph 84) notes that the risks that the carrier hotel/ data center may not have a business plan for covering its operating costs, the risk of non-optimal use of the IXP for covering its operating costs, the risk of non-optimal use of the IXP and the risk that the new submarine cable landing in Togo will not connect to the carrier hotel is low, given the Government's commitment to the sector. The ICR (paragraph 85) notes that the line ministry is proactive and engaged in mobilizing private sector financing for the sector. The ICR notes that Togo is considering a follow-up operation in order to ensure that the infrastructure delivered under this project is used to bring the full intended benefits to the sector.

**Technical risk for Togo.** Given that the activity of providing spectrum management equipment to help the sector regulator monitor the efficient use of spectrum resources was cancelled, there is moderate risk that this activity may not be completed.

## 8. Assessment of Bank Performance

### a. Quality-at-Entry

The Bank prepared this project based on the experiences of prior Bank-financed ICT projects. Lessons incorporated at design included: (i) PPP arrangements for high-capacity broadband networks, as international best practices in Kenya, Tanzania, and Uganda indicated that the best management structure for such networks are under PPP; (ii) given that the experiences with the first phase of WARCIP countries showed that PPP and open access discussions often encounter obstacles when it comes to the practical details, this project financed TA under a Project Preparation Advance (PPA) to select the preferred PPP option in both countries; and (iii) attempting to manage resistance to reforms from incumbent operators through including them in project preparation at an early stage (PAD, paragraphs 34 and 35). The Bank prepared this project in close collaboration with other development partners such as the European Investment Bank (EIB) in Mauritania.

The implementation arrangements at design were appropriate, with the newly established PIUs in the telecommunications sector ministries in charge of project implementation (PAD, paragraph 37).



The Bank identified several risks at appraisal including risks associated with private sector participation in financing the connectivity infrastructure, delays in implementing reforms, possible resistance from incumbents and overall weak implementation capacities in both countries. Even with mitigation measures, the overall project risk was rated as substantial (PAD, page 16). The arrangements made at appraisal for M&E and safeguards and fiduciary compliance were appropriate (discussed in sections 9 and 10).

There was one shortcoming. The project cost increased by a significant amount during implementation due to the lower estimation of the cost of constructing the carrier hotel at appraisal for Togo. The actual cost was almost double the estimated cost. This necessitated the AF for Togo.

The quality at entry was **satisfactory**.

### **Quality-at-Entry Rating**

Satisfactory

### **b. Quality of supervision**

According to the clarifications provided by the team there were sixteen supervisions in Mauritania and fifteen supervision missions in Togo during the project lifetime. The ICR (paragraph 81) noted that the supervision team included a mix of specialists, including ICT policy specialists, social development and environmental specialists and fiduciary specialists. The team was proactive and adapted to the challenges on the ground, including through project restructurings in both countries. The supervision team supported the PIU through preparing risk-benefit assessments and evaluating the project options in both countries. According to the clarifications provided by the team, there were sixteen supervisions in Mauritania and fifteen supervision missions in Togo during the project lifetime, and the continuity of leadership was maintained, with two Task Team Leaders (TTLs) during the lifetime of the project in both countries. The support provided by the team aided in safeguards and fiduciary compliance (discussed in section 10).

The quality of supervision was **satisfactory**.

In sum, overall Bank performance is rated as **satisfactory**.

### **Quality of Supervision Rating**

Satisfactory

### **Overall Bank Performance Rating**

Satisfactory

## **9. M&E Design, Implementation, & Utilization**



### a. M&E Design

The design of the M&E framework was based on the design of the WARCIP program. The key outcome indicators - the volume of international traffic, increase in the number of people with access to internet and telephone services, the average monthly price of international capacity link from the capital city to Europe and direct project beneficiaries were measurable and appropriate for monitoring project performance. The PIUs in the two countries were responsible for collecting the data required for monitoring project performance.

### b. M&E Implementation

The ICR (paragraph 58) notes that quarterly monitoring reports were published, and a survey was conducted during implementation to monitor progress. The Bank conducted a mid-term review (MTR) in September 2016, to identify gaps in achieving the PDO along with corrective measures. In Togo, there were delays in the recruitment of an M&E specialist.

A number of project indicators far exceeded the specified targets. The ICR noted that the telecommunications market evolves more rapidly due to the development of the underlying technologies. This aspect could have been incorporated either in M&E design by setting ambitious targets initially or increasing the targets during the project restructurings.

### c. M&E Utilization

The M&E was used for assessing progress toward the achievement of the PDO and addressing challenges through project restructurings during implementation. The M&E data was utilized by the Bank for approving the AF for Togo and extending the closing date for both countries. The ICR (paragraph 60) notes that M&E data are still being collected in Mauritania for monitoring the progress of the ICT sector.

In sum, M&E is rated as substantial.

### M&E Quality Rating

Substantial

## 10. Other Issues

### a. Safeguards

The project was classified as a Category B (partial assessment project) under the World Bank safeguard policies. Four safeguard policies were triggered at appraisal: Environmental Assessment (OP/BP 4.01); Natural Habitats (OP/BP 4.04); Physical Cultural Resources (OP/BP 4.11); and Involuntary Resettlement (OP/BP 4.12). (PAD, page vi).

**Environmental Assessment, Natural Habitats and Physical Cultural Resources.** The PAD (paragraph 52) noted that the environmental impacts (such as, the disturbance of natural habitats, soil erosion and degradation due to activities involving excavation, impacts on historical or archeological sites due to dust



and noise from works and disruption of agricultural and socioeconomic activities), were expected to be minimal and site-specific. As the location of investments were not determined at appraisal, the recipients prepared and publicly-disclosed an Environmental and Social Management Framework (ESMF) to address issues relating to the safeguards (PAD, paragraph 53). The ICR (paragraph 63) notes that the Environmental and Social Impact Assessment (ESIA) and the Environmental and Social Management Plan (ESMP) were prepared during implementation.

The ICR (paragraph 69) notes that the project's overall environmental and social performance was rated as satisfactory during implementation. The team clarified that there were no issues with the safeguards on natural habitats and physical cultural resources when the project closed.

**Mauritania.** The ICR (paragraph 64) notes that on the environmental level, a compensatory reforestation program was completed in October 2020, entailing reforestation of 56 hectares in three project sites. However, there was an environmental issue during implementation, related to shortcomings in working conditions at the construction sites. Mitigation measures were incorporated (such as mandatory wearing of safety equipment by workers and a permanent supply of drinking water in the workplace). This issue was resolved. The ICR notes that social distancing and hygiene measures were put in place in the wake of the COVID-19 pandemic at the community level. A Grievance Redress Mechanism (GRM) was set up to resolve grievances. Eight complaints were received, and these were resolved amicably (ICR, paragraph 65).

**Togo.** The ICR (paragraph 67) noted that the ESIA/ESMP process for the construction of the carrier hotel was conducted between April 2014 and August 2016. The National Agency for Environmental Management issued an Environmental Compliance Certificate for this activity in August 2016. A GRM was established in Togo. The ICR (paragraph 68) notes that there were some delays in the implementation of the GRM and that there was lack of evidence that the code of conduct was signed by all the workers for the project.

**Involuntary Resettlement.** As the exact location of investments were not known, a Resettlement Policy Framework (RPF) was prepared and publicly disclosed at appraisal to address issues relating to involuntary resettlement. The ICR (paragraph 63) notes that an Abbreviated Resettlement Policy Framework was prepared in Mauritania during implementation. The ICR (paragraph 67) notes that as the social assessment for Togo was assessed as low, and hence no Resettlement Action Plan (RAP) was prepared.

The ICR (paragraph 69) noted that the project's overall social performance was rated as satisfactory during implementation.

## **b. Fiduciary Compliance**

**Financial Management.** The Bank conducted a financial management assessment of the PIUs in both countries. The assessment concluded that the financial risk was substantial. The mitigation measures incorporated at design were: (i) recruiting qualified financial management specialists; (ii) preparing a financial management manual; and (iii) setting up of accounting software (PAD, paragraph 49).

The overall project's financial performance was rated as moderately satisfactory during implementation, until it was upgraded in the ISR of September 2020 owing to positive improvements in the maintenance of the project's accounts and the timely submission of financial reports with no notable reservations (ICR,



paragraph 75). The external audit reports and the interim reports both in Mauritania and Togo were submitted in a timely fashion and they were deemed by the Bank to be of acceptable quality.

In Togo, three complaints were received during the course of the project regarding delays in the payment of wages to workers at the carrier hotel construction site. These complaints were handled to the satisfaction of the complainants. No complaints were recorded from the local residents of the project sites.

**Procurement.** The Bank conducted a procurement assessment of the PIUs in both countries. The procurement risk for Mauritania was rated as high and for Togo, it was substantial. With mitigation measures, the risk was rated as substantial for Mauritania and moderate for Togo (PAD, paragraph 46).

The ICR (paragraph 72) notes that the project's overall procurement performance was moderately satisfactory. The ICR (paragraph 70) notes that there were considerable delays in the procurement process of the main backbone contract, which resulted in additional costs. In Togo, although most procurement activities were completed (including construction of the carrier hotel), the bidding process to purchase international capacity for the carrier hotel was not successful, due to the Togo PIU's inexperience with Bank procedures. The PIU also indicated that better support from the Bank's fiduciary team could have contributed to better results. There was no case of mis-procurement in either country.

**c. Unintended impacts (Positive or Negative)**

There were no unexpected impacts.

**d. Other**

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**11. Ratings**

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Moderately Satisfactory	Efficiency is modest in view of the shortcomings in Togo.
Bank Performance	Satisfactory	Satisfactory	
Quality of M&E	Substantial	Substantial	
Quality of ICR	---	Substantial	

**12. Lessons**

The ICR draws the following main lessons from the experience of implementing this project, with some adaptation of language.



**1. Robust policy dialogue with the public and private sector can be very useful for designing a PPP model with open access principles that are tailored for country circumstances.**

Through proactive engagement in both Mauritania and Togo, the Bank was able to identify the appropriate PPP arrangement that ensured open access. In Togo, the approach enabled a strong private partner to join early in the process. This brought the necessary expertise when it was most needed. In Mauritania, timely consultations with sector stakeholders and coordination with other donors enabled a design where the private sector plays a central role and can benefit from the advantages of fair and nondiscriminatory access to connectivity.

**2. A careful consideration of the timeline is especially required in ICT projects to avoid repeated extensions of the project closing date.** Given that the creation of a special purpose vehicle and implementation requirements in general take a long time, this aspect needs to be factored in ICT projects.

**The IEG draws the following lesson from this project.**

Given the fast pace of changes in the ICT sector, it would be useful to revise the targets for the indicators if need be through the project restructurings. This would give a better picture of the project's accomplishments.

**13. Assessment Recommended?**

No

**14. Comments on Quality of ICR**

The ICR is well-written. The theory of change articulated in the text provides a clear picture of the causal links between the project activities, outputs and outcomes. The ICR candidly acknowledges the issues that rose during implementation in Togo. The quality of evidence and the analysis provided in the text is adequate for assessing project performance. The ICR draws good lessons from the experience of implementing this project.

One minor issue is the length of the text. The text is about twice the recommended length of 15 pages. Also, "Annex three Project Cost by Component" is incomplete.

**a. Quality of ICR Rating**

Substantial

