



1. Project Data

Project ID

P122402

Project Name

WARCIP - APL-1B: , GN, BF

Country

Western and Central Africa

Practice Area(Lead)

Digital Development

L/C/TF Number(s)

IDA-62220,IDA-H7120,IDA-H7130,IDA-H7140

Closing Date (Original)

31-Dec-2016

Total Project Cost (USD)

100,919,477.37

Bank Approval Date

21-Jun-2011

Closing Date (Actual)

30-Jul-2021

IBRD/IDA (USD)
Grants (USD)

Original Commitment

92,000,000.00

0.00

Revised Commitment

109,513,830.57

0.00

Actual

100,919,477.37

0.00

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2. Project Objectives and Components

a. Objectives

This project was the second under the first phase of the West Africa Regional Communications Infrastructure Program (WARCIP). The program aimed to increase international and regional connectivity, create a fully integrated network linking the regional countries and provide affordable high-speed connectivity for West African countries. The first phase was in Liberia and Sierra Leone.



The Project Development Objective (PDO) as stated in the financing agreements of The Gambia, Guinea and Burkina Faso (Schedule 1, page 6) and the Project Appraisal Document (PAD, page 20) was:

" To increase the geographical reach of broadband networks and to reduce the costs of communication services in Burkina Faso, The Gambia and Guinea".

The PDO is parsed as follows for this review.

PDO 1. To increase the geographical reach of broadband networks in Burkina Faso, The Gambia and Guinea.

PDO 2. To reduce the costs of communication services in Burkina Faso, The Gambia and Guinea.

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

04-Apr-2018

c. Will a split evaluation be undertaken?

No

d. Components

There were three components (PAD, pages 21 - 23).

1. Supporting Connectivity.

Burkina Faso. The estimated cost was US\$31.30 million (including the appraisal and revised estimate with Additional Financing (AF)). The actual cost was US\$28.20 million. **Guinea.** The appraisal estimate was US\$25.20 million. The actual cost was US\$25.26 million. **The Gambia.** The appraisal estimate was US\$25.75 million. The actual cost was US\$24.59 million. The difference between the appraisal estimate and actual cost for Guinea and The Gambia was due to exchange rate changes during implementation.

This component planned to finance activities supporting connectivity in the three countries. There were two sub-components.

a. International connectivity. This subcomponent planned to support The Gambia and Guinea participate in the Africa coast to Europe submarine cable (ACE) for access to bandwidth capacity. For landlocked Burkina Faso, this subcomponent aimed to provide access to high-capacity bandwidth from neighboring countries through overland route to a new or existing submarine cable system.



b. Regional connectivity. This subcomponent planned to finance the terrestrial broadband backbone fiber networks for cross-border connectivity. For Burkina Faso, this subcomponent included building missing connectivity links to Ghana for wider access to low-cost connectivity.

2. Creation of an Enabling Environment and Strengthening of Institutions for Improved Connectivity.

Burkina Faso. The estimated cost was US\$8.68 million (including the appraisal and revised estimate). The actual cost was US\$5.91 million. **Guinea.** The appraisal estimate was US\$6.80 million. The actual cost was US\$2.47 million. **The Gambia.** The appraisal estimate was US\$7.25 million. The actual cost was US\$4.84 million. The difference between the appraisal estimate and actual cost for Guinea and The Gambia was due to exchange rate changes during implementation.

This component aimed to provide support for the governance, ownership and financing issues related to operationalizing the submarine cable landing station for The Gambia and Guinea and the Virtual Landing Point (VLP) for Burkina Faso. There were four subcomponents: (a) assistance for developing the operating model for managing the Public-Private-Partnership (PPP) arrangement and related open access principles; (b) assistance for creating a policy and regulatory framework for fostering competition; (c) conducting studies for helping the countries put in place a regime for open access to the submarine cable landing stations; and (d) strengthening the capacities of sector regulators and relevant ministries for implementing the PPP and open access principles.

3. Project implementation. Burkina Faso. The estimated cost was US\$3.02 million (including the appraisal estimate and revised estimate). The actual cost was US\$2.17 million. **Guinea.** The appraisal estimate was US\$2.00 million. The actual cost was US\$1.91 million. **The Gambia.** The appraisal estimate was US\$2.00 million. The actual cost was US\$2.55 million. The difference between the appraisal estimate and actual cost for Guinea and The Gambia was due to exchange rate changes during implementation. This component provided implementation support.

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

Project cost. The estimated cost at appraisal for the three countries was US\$86.0 million. An Additional Financing (AF) of US\$20.0 was approved for Burkina Faso on April 4, 2018. With this, the revised estimate was US\$112.0 million. The actual cost was US\$100.9 million.

Project financing. The Bank financing was estimated at US\$86.0 at appraisal (IDA Grants of US\$30.0 million for Guinea, US\$23.0 million for Burkina Faso and US\$33.0 million for The Gambia). AF of US\$20.0 million was approved for Burkina Faso. With this, the Bank financing for the project was US\$112.0 million. US\$100.9 was disbursed. US\$1.9 million of financing for Burkina Faso was cancelled for reasons discussed below.

Recipient contribution. Recipient contribution was not planned at appraisal. There was no recipient contribution during implementation.

Dates. The project was approved on June 22, 2011, became effective on October 31, 2011, and scheduled to close on December 31, 2016. However, the project closed on July 30, 2021.



Other changes. There were five Level 2 restructurings (one for The Gambia and Guinea and four for Burkina Faso). The main changes made during the project lifetime are as follows:

For The Gambia and Guinea.

- The closing date was extended by nine months from March 31, 2016 to December 31, 2016 **through the first restructuring on February 29, 2016**. For The Gambia, this extension was provided for completing some activities (such as, elaborating the open access policy, a feasibility study for regional connectivity, and developing strategies for repositioning the state-owned Gambia Telecommunication Company (Gamtel) and Gambia Telecommunications Cellular Company (GAMCEC). Savings realized from the ACE consortium fees were reallocated between disbursement categories. For Guinea, the extension was granted for completing the studies on regulation and broadband strategies. Project activities to The Gambia and Guinea were completed on December 31, 2016.

For Burkina Faso.

The closing date was extended thrice initially. By a year from December 31, 2016 to December 31, 2017 **through the first restructuring on February 19, 2016**, by six months from December 31, 2017 to June 30, 2018 **through the second restructuring on December 28, 2017**, and three months from June 30, 2018 to September 30, 2019 through the **third restructuring on May 11, 2018** for completing the ongoing activities.

AF of US\$20.0 million was approved in April 2018. The actual cost of the activity of acquiring bandwidth was higher than estimated at appraisal. The AF was partly intended to close the financing gap. The scope of activities for Burkina Faso was also scaled up. The closing date was extended to June 30, 2021.

The main changes made through the fourth Level 2 restructuring on May 10, 2021.

- The activities of constructing fiber-optic link between Fada and Pama one and related studies were cancelled due to the security situation in Eastern Burkina Faso. Part of the financing freed due to the cancellation was used for purchasing additional international bandwidth.
- US\$1.9 million of financing was cancelled.
- The project closing date was extended by a month from June 30, 2021 to July 30, 2021.

Split rating. The PDOs remained unchanged with the AF for Burkina Faso. The AF was intended partly for addressing a financing gap and partly for increasing the project scope. Outcome targets were modified with the increase in project scope. Therefore, this review is not based on a split rating of objectives.

3. Relevance of Objectives

Rationale

Country and sectoral context. Despite sustained economic growth before appraisal, The Gambia, Guinea and Burkina Faso faced challenges of poverty. The three countries were listed as Least Developed



Countries (LDCs) with a ranking of 151, 156 and 161 out of 169 countries on the United Nations Human Development Index. In 2009, the per capita income in The Gambia, Guinea, and Burkina Faso was only US\$430 and US\$407 and US\$517 respectively. Deeper regional integration was seen by the three countries as the means for accelerating the economic growth that is required for sustained poverty reduction.

Sectoral context. Although the Information and Communication Technology (ICT) in the three countries had opened up in the years before appraisal, the countries faced challenges of providing access to modern ICT services for their populations. Internet penetration levels was low in the countries, with only 1% of the population having internet services, as compared to the Sub-Saharan Africa (SSA) average of 8.7%. Broadband penetration was in the range of 0.07% and 0.09%, as compared to the SSA average of 0.11%. Prices of ICT services in the countries were high. Sector liberalization in the countries remained incomplete with weak competition.

The small coastal countries (The Gambia and Guinea) were seen as unattractive investments and hence circumvented by the private submarine cable consortia. Connecting to the ACE submarine cable represented an opportunity for these countries to improve their international connectivity. Landlocked Burkina Faso was dependent on the cooperation of neighbors for international connectivity. A terrestrial route to a new or existing fiber cable system was deemed to be the most cost effective long-term option for improving international connectivity in Burkina Faso.

Regional strategy. At appraisal, the PDO was well-aligned with the Joint Regional Poverty Reduction Strategy (RPRS) for West Africa issued in 2007. This strategy proposed four strategic directions for greater regional integration, including through "developing interconnected infrastructures". The PDO is relevant to the Africa Regional Integration and Cooperation Assistance Strategy (RICAS) for 2021-2023. The first pillar of this strategy articulated the need for building regional connectivity as a necessary condition for promoting regional integration and identified regional connectivity as an overriding priority.

Bank regional strategy. The PDO was well-aligned with the Bank's regional strategy and the Bank's strategies for the three countries. The Regional Integration Assistance Strategy (RIAS) for West Africa updated in 2010, articulated the need for exploiting scale economies, facilitating intraregional trade and connecting landlocked countries to regional and global trade routes. The RIAS identified the WARCIP as a flagship program.

Bank strategy for The Gambia. At appraisal, the PDO was consistent with the Joint Partnership Strategy (JPS) prepared by the Bank and African Development Bank (AfDB) for 2013 - 2016. The strategy focused on two pillars: (i) strengthening economic management and improving public service delivery; and (ii) enhancing productive capacity and accelerating growth and competitiveness. The PDO is relevant to the two pillars of The Gambia Country engagement note for 2018 - 2021: (i) enhancing competitiveness; and (ii) strengthening the institutional capacity for governance and public service delivery.

Bank strategy for Guinea. At appraisal, the PDO was relevant to the higher-level objectives of the Bank's Interim Strategy Note (ISN) for 2014 - 2017. The ISN articulated the need for: (i) fostering sustainable and equitable growth; (ii) improving access and quality of basic social services; and (iii) strengthening governance and institutional capacity. The PDO is relevant to the Bank's Country Assistance Strategy (CAS) for Guinea for 2018 - 2023. The CAS specifically identified improving Information Communication Technology (ICT) for stimulating growth and economic diversification.



Bank strategy for Burkina Faso. The PDO was well-aligned with the Bank's CAS for 2010-2012 for Burkina Faso. The strategy articulated the need for deepening economic transformation and identifying new drivers for growth. The PDO is relevant to the Bank's Country Partnership Framework (CPF) for 2018-2023. The CPF articulated the need for developing transport, trade and ICT for improving access to markets.

Previous Bank experience. The Bank has financed projects in the three countries. This was the first ICT sector project in the countries. The project included investment activities (access to ACE international submarine cable for The Gambia and Guinea and an overland route for Burkina Faso), and institutional strengthening activities aimed at an enabling environment for developing the ICT sector, including through PPP arrangements. While the former activity would help in increasing the geographical reach of broadband services, the latter can aid reducing the prices of internet services by fostering competition. Given that the PDOs were relevant to the region and the Bank's regional strategy, the relevance of the PDO is high.

Rating

High

4. Achievement of Objectives (Efficacy)

OBJECTIVE 1

Objective

PDO 1. To increase the geographical reach of broadband services in Burkina Faso, The Gambia and Guinea.

Rationale

Theory of change. The outputs such as connection to the international submarine fiber optic cable and the regional and national terrestrial broadband backbone fiber networks, were likely to increase the geographical reach of broadband services and increase the volume of international communications traffic in the three countries. The causal links between activities, outputs and outcomes were logical, and the outcomes were monitorable. The results framework assumes that the connectivity foundations (submarine cable and backbone infrastructure) would be completed.

Outputs (ICR, pages 10 - 11, pages 29 - 30 and page 44). The outputs for the three countries are as follows:

The Gambia.

- The membership fees to the Africa Coast to Europe (ACE) submarine cable consortium were made as scheduled and the cable was operational in December 2012. A landing station was built with a capacity of 10 Gbit/s.
- The volume of available capacity international communications (internet, telecoms and data bandwidth) increased to 58.26% at closure. This exceeded the target of 30%. 51% of the population were using the internet in 2019 (the ICR does not provide the baseline number and does not specify the target).



- The connectivity infrastructure brought internet capacity to 36 ministries, departments and agencies through a government Local Area Network. An Integrated Financial Information System (IFMIS) was deployed to leverage this connectivity.
- Six secondary school were provided with broadband network connectivity. ICT centers in these schools provided internet access to the communities. Digital literacy training and ICT certifications were provided in rural areas.
- Policy, legal and regulatory support were provided as targeted to the: (i) The Ministry of Information and Communications Infrastructure (MOICI) on sector liberalization, national ICT and broadband strategy, internet exchange point (IXP) feasibility assessment and regional connectivity; (ii) The Public Utilities Regulatory Authority (PURA) on taxation, spectrum and numbering; and (iii) The Gambia Telecommunications Company (GAMTEL) on business strategies and human resources audit. The MOICI, PURA and GAMTEL staff were trained on technical and regulatory areas of the telecom sector. A restructuring plan for GAMTEL and a cybersecurity strategy was completed as targeted.
- A PPP arrangement was developed for the landing station. However, a key policy principle underlying the arrangement - the full liberalization of The Gambia's international gateway - was not achieved at closure in 2016 due to political difficulties.

Guinea.

- The membership fees to the ACE cable consortium were made as scheduled and the cable became operational in January 2013. The landing station had an available capacity of 42 Gbit/s.
- The volume of available capacity of internet, telecoms and data bandwidth services increased to 9.5% when the project closed. This exceeded the target of 5.9%. 23% of the population were using the internet in 2019 (the ICR does not provide the baseline number and does not specify the target).
- A virtual government network linking five government establishments in Conakry was implemented. Information system was installed in five ministries.
- The Ministry of Post, Telecommunications and Digital Economy (MPTEN) personnel and the Project Implementation Unit (PIU) staff were trained in areas such as fiber optics, digital economy, project management and environmental safeguards. Technical support was provided to the Postal and Electronic Communications Registry (ARPT) and MPTEN to review legislation and update the telecommunications strategy. A study was completed on operationalizing the PPP arrangement and on the needed legal and regulatory environment under "open access" principles.
- The IXP was installed at the new premises of the regulator. A feasibility study for the IXP was completed. However, the IXP was not yet operational when the project closed.
- The activity associated with disinvestment of the Government shares in the *Guineenne de Large Band* (GUILAB) was not completed due to the difficulties faced by the Government. The team clarified that to date, the Government holds 52.5% shares in GUILAB.
- Most of the activities supporting the regulator (ARPT) were delayed and eventually dropped, due to the entity lack of interest and cooperation.

Burkina Faso.

- The Virtual Landing Point (VLP) facility was operational when the project closed. High capacity bandwidth (5 Gbit/s) were purchased for the VLP and bulk international bandwidth was supplied to licensed operators as targeted. The bandwidth was commercialized in December 2018. Additional



- Gbit/s were purchased through the AF for the project. With the AF, the VLP was strengthened to improve redundancy by opening a second site in Bobo-Dioulasso.
- The IXP facility was operational at project closure. The IXP was scaled up through the AF to improve the quality of national connectivity. The "national internet traffic" exchanged at the IXP reached 12,000 Mbit at peak times from a baseline of 350 Mbit at peak times. This exceeded the target of 1,500 Mbit.
 - Fiber link was deployed from Ouagadougou to Paga on the border of Ghana and the link was extended to the Bagre Growth Pole for providing redundancy, security and wider access to low cost capacity. Fiber link was extended to Dindeogo-Zabre under the AF.
 - 2,332 buildings of the government agencies in 42 provinces were provided with access to internet services when the project closed. Compared to 2017, this was an increase of 129% in the government agencies and 300% in the number of provinces connected.
 - Activities aimed at strengthening the regulatory environment and the PPP were completed as targeted. This included developing a national development policy proposal for the digital economy, a development strategy for the broadband universal access, a sector policy proposal and an implementation action plan.
 - The project financed the drilling of five water wells, the associated construction works and the pumping equipment to each well. These investments were agreed with the communities located in the proximity of the deployed optic fiber connections. A pilot of installing smart boards/projectors and providing e-learning content was completed.

Outcomes.

The outputs described above were expected to increase the geographical reach of broadband networks. The proxies used for monitoring the outcomes were: (i) volume of international communications (internet, telecoms and data) bandwidth per person; (ii) increase in the percentage of population with access to internet services; and (iii) increase in the percentage of population with access to telephone services (fixed mainlines plus cellular phones).

Volume of International traffic (measured in Kbit/s per person).

- In The Gambia, the volume of international traffic increased from 10 Kbits/s per person at the baseline in 2010 to 528 Kbits/s per person when the project closed in 2016, far exceeding the target of 30 Kbits/s. In Guinea, the volume of international traffic increased from 5 Kbits/s per person at the baseline to 86 Kbits/s per person when the project closed in 2016, achieving the target of 85 Kbits/s per person. In Burkina Faso, the volume of international traffic increased from 28 Kbits/s per person in 2010 to 244.2 Kbits/s per person in 2017, exceeding the target of 74 Kbits/s per person set for the original closing date (2016).

Access to internet services (measured in number of subscribers per 100 people).

- In The Gambia the share of population with access to internet services increased from 0.75% at the baseline to 28% in 2016. This exceeded the target of 3%. In Guinea, it increased from 0.3% at the baseline to 26.2%, exceeding the target of 0.70%. In Burkina Faso, it increased from 0.20% at the baseline to 67.26%, exceeding the target of 40%. The access to network coverage for mobile internet reached 50.67%, falling short of the target of 60%.



Access to telephone services (fixed mainlines plus cellular phones per 100 people).

- In The Gambia, the number of smartphone users increased from 127,000 users in 2011 to 345,000 in 2016. 109.5% of the population had mobile phones (some people had more than one line 2021). In Guinea, the share of the population with access to telephone services increased from 34.7% in 2010 to 97.8% in 2016, exceeding the target of 47.5%. 118% of the population had mobile phones in 2021. In Burkina Faso, access to telephone subscriptions reached 108.46% of the people as compared to 37.2% at the baseline, exceeding the target of 92%. Access to mobile telephony coverage reached 92.41% of the population, exceeding the target of 90%.

It is difficult to determine the extent to which the realized outcomes were attributable to the project activities, given the telecommunication sector's fast development in recent times. However, it is logical to assume that the project significantly contributed to realizing the intended outcomes.

Rating

Substantial

OBJECTIVE 2

Objective

PDO 2. To reduce the costs of communication services in Burkina Faso, The Gambia and Guinea.

Rationale

Theory of change. Institutional strengthening activities aimed at improving the regulatory environment for the development of the ICT sector. Activities aimed at fostering a competitive environment through PPP arrangement were likely to lower the wholesale and retail prices of fixed internet services. The causal links between project activities, outputs and outcomes were logical and the outcomes were measurable. The results framework explicitly assumes that: (i) there is private sector investment in digital infrastructure; and (ii) the e-Government institutional capacity and policy frameworks are developed in the three countries.

Outputs.

The outputs described above are also relevant to this objective.

Intermediate outcome.

- In The Gambia, the retail price of Internet services for enterprises decreased by 73%, from US\$1,500 to around US\$400. In Guinea, the retail price of internet services decreased by 36%, from US\$1,200 to around US\$762. This was short of the target of US\$500. In Burkina Faso, the retail price of mobile internet services decreased from US\$16 to US\$12.30. This was short of the target of US\$8.00. The retail price of fixed internet services decreased from US\$130 to US\$22.24, exceeding the target of US\$70.

Outcomes.



The outputs were expected to reduce the costs of communication services in the three countries and increase the number of beneficiaries. The wholesale price of international E1 capacity link was used as a proxy of the cost of communications. The beneficiaries were defined as the number of people using ICT to communicate (including businesses, governments, teachers, doctors, farmers and fishermen).

Wholesale prices of international connectivity in the three countries.

- In The Gambia, the average monthly price of wholesale E1 capacity link from capital city to Europe decreased by 90% during implementation, reaching US\$500 by closing in 2016. This exceeded the target of 50%. In Guinea, the average monthly price decreased from US\$8,000 at the baseline to US\$1,400 as targeted. In Burkina Faso, the average monthly price of wholesale international E1 capacity link from the capital city to Europe decreased from US\$9,000 at the baseline to US\$319 at project closure. This exceeded the target of US\$1,400.

Direct beneficiaries.

The total number of beneficiaries increased from 3,300,000 at the baseline on September 30, 2010 to 7,840,000, exceeding the target of 6,242,000. Direct female beneficiaries were 101%. The figures for the three countries are as follows:

- In The Gambia, the number of beneficiaries increased from 1,600,000 at the baseline on September 30, 2010 to 1,800,000 when the project closed in 2016 as targeted. 47% of the beneficiaries were women (target 51%). In Guinea, the number of beneficiaries increased from 3,700,000 to 101,150,000 (target 5,600,000). 35% were women (target 30%). In Burkina Faso, this indicator was dropped through the AF as it was deemed to be inadequate as compared to the indicators "access to telephone services" and "access to internet services".

A beneficiary survey was conducted in Burkina Faso in July 2021. (The beneficiaries included internet users and internet providers, the PIU, the Permanent Secretariat of the Transport Program, the General Direction of Communications Infrastructure and the regulator). The main conclusions of the survey were: (i) 19 of the 21 Internet Service Providers (ISPs) stated that their number of customers steadily increased since 2018; (ii) from 2018 to 2021, it increased by 26% (from 10,086 to 16,723). In the first six months of 2021, it increased by 438% (from 16,723 to 89,999); and (iii) the main reasons for these increases were good connection quality, affordability due to the lower price and increased awareness regarding the internet.

It is difficult to determine the extent to which the outcomes could be attributed to the project activities, given the telecommunication sector's development in recent times. However, it is clear that the project activities significantly contributed to realizing the intended outcomes.

Rating
Substantial



OVERALL EFFICACY

Rationale

The outcomes were for the most part exceeded. This review concludes that the project significantly contributed to realizing the intended outcomes.

Overall Efficacy Rating

Substantial

5. Efficiency

Economic benefits. The benefits from connecting to the ACE submarine cable were assumed to come from financial savings. Although the up-front costs of the ACE submarine cable were higher, estimates showed that the cost savings in purchasing connectivity through ACE would be ten times cheaper than the cost of purchasing bandwidth from existing African submarine cables. The cost advantage of ACE was even greater compared to satellite bandwidth.

The Gambia. The financial analysis at appraisal for The Gambia showed that the investment in ACE would breakeven in 2019/2020, with an Internal Rate of Return (IRR) of 28.8%. The financial analysis conducted at closure with the latest data from the Gambia submarine cable (GSC) at closure showed that ACE was highly profitable, with a Net Present Value (NPV) of US\$17 million and an IRR of 38%.

Guinea. The financial analysis developed at appraisal for Guinea showed that the investment in ACE would break even in 2014/2015, with a NPV of US\$24.8 million and the IRR of 22.4%. The financial analysis conducted at closure showed an IRR of 2% indicating that the ACE was profitable (the ICR does not provide the NPV at project closure). The substantial difference between the IRR at appraisal and at closure was mainly because prices did not reach the level estimated at appraisal.

Burkina Faso. At appraisal, the financial analysis estimated an IRR over 10 years at 28%, with a break even expected between 2016 and 2018 and a NPV of US\$8.4 million. The analysis was not conducted at closure as the Burkina Faso VLP created in 2018, only became operational in January 2020 and sufficient data was not available to assess the return on investment (ICR, paragraph 44).

Administrative and Operational issues.

The Gambia. The international gateway was not fully liberalized as envisioned at design when the project closed in 2016. It was liberalized only in August 2019 under the Bank-financed The Gambia Second Fiscal Management, Energy and Telecom Reform Development Policy Operation. Further, as part of the WARCIP program, the Government was required to divest its shares in the Gambia Submarine Cable (GSC) to private sector operators when the project closed in 2016. The Government had not divested its shares in GSC by 2021.

Guinea. As in The Gambia, the Government was required to divest its shares in GUILAB as part of the WARCIP Program at project closure. But to date, the government still holds 52.52% of the shares of GUILAB. The team clarified that in the mobile sub-sector, operator's (such as, Orange Guinea) still suffer from the Government's strong hold on asymmetric regulation in favor of the incumbent operator. The activity of establishing Internet



Exchange Point (IXP) was delayed and at closure although the IXP was established, it was not operational. Most of the activities supporting the regulator - the Post and Electronic Communication Regulatory Authority (ARPT) - were subject to delays during implementation and eventually dropped.

Burkina Faso. The implementation of connectivity component (Virtual Landing Point and terrestrial connectivity) was delayed in the initial years due to a combination of factors, including lengthy national procurement procedures, lack of motivation on the part of the civil servants, frequent changes in executing agencies leading to disruption of activities lack of counterpart funding for activities that were not eligible for Bank financing (such as activities associated with stakeholders participation) and security issues. The delays were exacerbated in the final years by external factors (restrictions imposed following the COVID-19 pandemic). The entity in charge of the VLP was created in 2016, five years after the project started in 2011 and the VLP was fully operational only in 2019. The activity of constructing the connectivity link from Ouagadougou and Paga on the Ghana border was subject to cost overruns. The financing gap was partly covered through the AF. Finally, the largest construction activity (the link between Burkina Faso and Benin was dropped due to security considerations and an amount of US\$1.9 million of Bank financing was cancelled.

In sum, efficiency is rated as modest in view of the shortcomings during implementation.

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		0	0 <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

Relevance of the PDO is high. Efficacy is as substantial. Efficiency is modest. With these ratings, overall outcome is Moderately Satisfactory.

a. Outcome Rating

Moderately Satisfactory

7. Risk to Development Outcome



Government commitment. The main risk is the lack of governments divestiture in the Africa Coast to Europe Cable (ACE) SPV in The Gambia and Guinea:

- **The Gambia.** There is substantial risk to development outcome in The Gambia. The project design envisioned that Government of The Gambia would divest its shares in the Gambia Telecommunications Company (GAMTEL). The divestment has not occurred to date and the Government retained 49 percent shares. The ICR (paragraph 102) notes that the Gambia Submarine Cable (GSC) and operators manage the ACE. Access to ACE capacity was based on their respective shares in the Special Purpose Vehicle (SPV) and not regulated on open access terms, creating barriers to entry.
- **Guinea.** As in The Gambia, there is substantial risk to development outcome. Under the PPP arrangement for Guinea, no shareholder could hold more than 25% of the shares in GUILAB. This provision was in place to ensure that no one operator or shareholder could control ACE capacity and therefore affect competition in the market. To date, the Government still holds 52.52% of GUILAB's shares.

Security Risk . Burkina Faso. There is a substantial risk that the connectivity infrastructure might be damaged in conflict affected areas.

8. Assessment of Bank Performance

a. Quality-at-Entry

The Bank prepared this project based on the lessons of the first phase of the WARCIP in Liberia and Sierra Leone and from the previous Bank-financed ICT projects in East and Southern Africa, and the Central Africa Backbone project. The lessons incorporated at design included: (i) focusing upfront on improving the legal and regulatory framework and establishing the PPP arrangement; (ii) early engagement with the private sector; and (iii) ensuring that the key stakeholders understand the open access principles (PAD, paragraphs 48 and 50). The project design included a Project Preparation Advance (PPA) to The Gambia and Guinea for activities such as financing key studies, identifying the best low-cost international connectivity options, and establishing SPV with private sector participation. This helped in creating SPV in the two countries even before the Board approval. In Burkina Faso, the PPA faced delays and hence only the activity of preparing safeguards instruments was prepared with the PPA.

The implementation arrangements were adequate. This included establishing a Project Implementation Unit (PIU) in the Ministries of Communications or regulatory authorities in The Gambia and Guinea (PAD, paragraph 51). An already established PIU in Burkina Faso with experience in Bank projects was in charge of implementation. The arrangements made at appraisal for monitoring and evaluation and safeguards and fiduciary compliance were appropriate (discussed in sections 9 and 10).

There were moderate shortcomings at Quality-at-Entry. The risk associated with government failure to commit to project design was underestimated. The mitigation measures focused on increased dialogue, participatory decision-making with the private sector, and TA to compensate for the weak government



capacity. These measures were inadequate as demonstrated by the shortcoming related to the divestment of the SPV in The Gambia and Guinea. Likewise, risks associated with the security situation in the border areas of Burkina Faso and Benin were underestimated. The cost of establishing the VLP in Burkina Faso was underestimated. This led a financing gap which was partly covered by AF.

Quality-at-Entry Rating

Moderately Satisfactory

b. Quality of supervision

10 supervision missions for The Gambia, 11 for Guinea and 17 for Burkina Faso were held during implementation. The supervision team provided guidance to the respective governments and the different public and private entities involved and worked closely with the PIUs. The supervision team also supported preparation of analytical studies on addressing issues such as liberalizing the international gateway, adopting an open access policy and business strategies in The Gambia and Guinea. The support provided by the Bank team aided in safeguards and fiduciary compliance (discussed in section 10). The team clarified that there were four task team leaders for Burkina Faso and two for The Gambia and Guinea during the project lifetime. There were minor shortcomings in M&E implementation (discussed in section 9). The quality of supervision was satisfactory.

Overall Bank performance is rated as moderately satisfactory due to the moderate shortcomings at entry.

Quality of Supervision Rating

Satisfactory

Overall Bank Performance Rating

Moderately Satisfactory

9. M&E Design, Implementation, & Utilization

a. M&E Design

The key indicators for monitoring the two PDO's were adequate. The three proxies - volume of international traffic, access to telephone and internet services - were appropriate for monitoring the PDO 1. Likewise, monitoring the trends in retail prices of internet services and the average wholesale price of E1 capacity from the capital city to Europe and the number of direct beneficiaries were appropriate for monitoring the PDO 2.

The M&E framework could have benefitted from an indicator for monitoring the quality of internet services to complement the indicators on access and prices. Given that compared to other sectors underlying technologies were moving fast in the ICT sector, the target values could have been modified during



implementation for better attribution of results. The data for monitoring came from the private operators and the international organizations.

b. M&E Implementation

The ICR (paragraphs 70 - 72) noted that the quality of M&E implementation varied across countries. In Guinea and Burkina Faso, the quality was more or less satisfactory. In The Gambia however, the quarterly reports and annual progress reports were not generated as per the provisions of the project implementation manual and monitoring of indicators was inconsistent in the initial years. The ICR observed that the quality improved in the latter years.

One shortcoming of M&E implementation was that reporting in the World Bank system was not accurate with respect to the consolidation of values to reflect the aggregated values of the WARCIP program.

c. M&E Utilization

The information provided by the M&E framework was utilized for monitoring project performance.

In sum, M&E is assessed as substantial in view of the minor shortcomings during implementation.

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: Environmental Assessment (OP/BP 4.01); Physical Cultural Resources (OP/BP 4.11); Natural Habitats (OP/BP 4.36); and Involuntary Resettlement (OP/BP 4.12).

Environmental Assessment, Physical Cultural Resources and Natural Habitats. The ICR (paragraph 76) noted that due to nature of the construction activities, no negative environmental impacts were anticipated in The Gambia and Guinea. The three countries prepared and publicly disclosed Environmental and Social Management Plans (ESMP). The potential negative environmental impacts were expected to come from the construction works in Burkina Faso. Burkina Faso conducted an Environmental and Social Audit in 2018. The ICR noted that there were no significant environmental impacts in the three countries. According to the clarifications provided by the team, the project was in full compliance with the safeguards on Physical Cultural Resources and Natural Habitats.



Involuntary Resettlement. A Resettlement Action Plan (RAP) was prepared and publicly-disclosed in The Gambia and Burkina Faso. A RAP was not prepared for Guinea as the landing station was in a shore zone in an unused government-owned land.

The Gambia. The RAP for The Gambia noted that although land acquisition was not envisioned, about 27 people could be temporarily inconvenienced. The implementation of the RAP was subject to delays in the initial years. The total number of people who were affected was listed as fifteen during implementation. Six people had received compensation when the project closed. The team clarified that after a rigorous and extensive campaign to reach the fifteen people, only six were identified and compensated. The team also clarified that the actions taken were appropriate and sufficient.

Burkina Faso. 274 households affected by the project activities were compensated out of a total of 277 households. Burkina Faso also implemented a Grievance Redress Mechanism (GRM) and a Gender-based violence (GBV) information campaigns in the project-intervened areas. Neither the GRM nor the GBV were solicited during implementation.

b. Fiduciary Compliance

Financial management. At appraisal, the Bank conducted an assessment of the financial arrangements in the three countries. Financial management in the three countries was rated as moderately satisfactory during implementation (ICR, paragraphs 82, 85 and 86). In the three countries unqualified external audit reports were submitted in a timely fashion.

Procurement. The Bank conducted a procurement assessment at appraisal. In The Gambia and Guinea, the project financed payment of the fee to access ACE, which resulted in disbursements of 70% of the funds shortly after effectiveness. In contrast, the activities in Burkina Faso required standard fiduciary processing. Procurement management was moderately satisfactory in the three countries. There were procurement delays in all the countries due to the weak capacity of the implementing agencies. These were eventually resolved and the ICR does not report any case of mis-procurement in the three countries.

c. Unintended impacts (Positive or Negative)

The ICR does not mention any unintended impacts.

d. Other

11. Ratings

Ratings	ICR	IEG	Reason for Disagreements/Comment
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Outcome	Moderately Satisfactory	Moderately Satisfactory
Bank Performance	Moderately Satisfactory	Moderately 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. A regional approach to fostering broadband services can help in moving forward the agenda of regional integration. This project helped the small coastal countries of The Gambia and Guinea which were circumvented by the private submarine cable consortia, in connecting to the ACE submarine cable. Likewise, the project aided landlocked Burkina Faso in developing direct and virtual landing point in Ghana. Developing direct and virtual landing points through the region helps to drive an expansion to broadband coverage and a decrease in broadband prices, hence contributing to less heterogeneity in broadband markets across the region.

2. Government commitment on PPP and open access principles in itself may not guarantee open access. The lessons from The Gambia and Guinea showed that the PPP model does not guarantee open access and that regulatory safeguards are required for realizing the intended outcomes. To ensure fair and equitable access, further regulatory frameworks needs to be in place, including the appropriate monitoring by the sector regulator of the terms and conditions for accessing the international capacity, to ensure that prices are appropriately set, that there is no collusion between the shareholders, and that the terms of access are nondiscriminatory to all players.

3. The outcome indicators may require regular assessment and modification in ICT projects. Compared to other sectors, the telecommunication market evolve more rapidly, due to the fast pace of development of the underlying technologies. The lesson from this project is that targets and values of indicators in such projects need to be regularly assessed and revised against market development trends for proper attribution of results.

4. Flexible implementation strategies may help in operations in Fragile, Conflict and Violence (FCV) countries. Lessons from Burkina Faso in this project demonstrated the need for adopting flexible implementation strategies, based on "on the ground" staff and closely monitoring the security situation.

13. Assessment Recommended?

No



14. Comments on Quality of ICR

The ICR is clear. The theory of change provided in the ICR clearly articulates the links between project activities, outputs and the intended outcomes. The ICR candidly discusses the issues pertaining to the Governments of The Gambia and Guinea not divesting their shares as required at design. The evidence provided in the text is adequate for assessing project performance in the three countries. The ICR draws good lessons from the experience of implementing this project.

There were minor shortcomings. There is a discrepancy in the rating for outcome and Bank performance in the Data sheet and the main text (pages 13 and 26). The ICR in the datasheet mentions that changes in safeguard policies were triggered in the June 26, 2019 but does not discuss this in the main text. The main body of the text at 31 pages, is twice the recommended length of 15 pages. The ICR would have benefitted from better editing.

a. Quality of ICR Rating

Substantial