



# Concept Environmental and Social Review Summary

## Concept Stage

### **(ESRS Concept Stage)**

Date Prepared/Updated: 11/18/2019 | Report No: ESRSC00942



**BASIC INFORMATION**

**A. Basic Project Data**

Country	Region	Project ID	Parent Project ID (if any)
Cabo Verde	AFRICA	P171099	
Project Name	Digital Cabo Verde		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Digital Development	Investment Project Financing	3/2/2020	6/15/2020
Borrower(s)	Implementing Agency(ies)		
Olavo Correia	Secretary of State for Innovation and Technical Training at Government of Cabo Verde		

Proposed Development Objective(s)

To support Cabo Verde in establishing the needed foundations to become a digital hub by enhancing digital infrastructure and strengthening the supply of digital skills and the demand for digital services.

Financing (in USD Million)	Amount
<b>Total Project Cost</b>	<b>30.00</b>

**B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?**

No

**C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]**

Emerging digital technologies (e.g. IoT, AI, Blockchain and edge cloud) and digital platforms (Amazon, Alibaba, Airbnb, and Uber) are changing the nature of development. In this changing landscape, Cabo Verde needs to leverage its current strengths to re-imagine its position as a digital platform.



The proposed operation has the objective to contribute transforming Cabo Verde as a platform in leveraging its digital infrastructure, including both connectivity infrastructure and data depositories. Enhancing supply and demand for such digital infrastructure can create an outstanding demand for the country as a digital platform (i.e., an ICT Hub). In order to meet the proposed PDO, the objective of the project would be threefold:

- 1 - To address the key policy and regulatory prerequisites for connectivity and that would enable the achievement of the government vision, and make sure that key foundational elements to accelerate the country's reach of such aspirational targets are met
- 2 - To increasing supply through International Access and provide an opportunity for commercialization and financial viability of the project, regionally and domestically, and preparing the next generation of digital workforce.
- 3 - To expand Demand through data driven applications and usage.

The Project Development Objectives will be achieved through the following components

#### Component 1 - Enabling Environment to develop digital economy

Based on the sector's review of best international practices and the findings of previous missions in Cabo Verde, the Project will support the Government in addressing the policy and regulatory prerequisites that would enable the achievement of Government vision , and key foundational elements to accelerate the country's reach of such aspirational targets. The prerequisites include:

- (i) Finalization of the concession negotiation with Cabo Verde Telecom (CVT). There is a need to consider the option to open negotiations to reformat the concession contract to strengthen the competitiveness of the telecommunications sector in Cabo Verde.
- (ii) Adoption and implementation of a new governance option for managing public wholesale broadband infrastructure. Due to increasing demand from private and public stakeholders, the need for a sound and best class infrastructure wholesale network is clearly called from all the stakeholders.
- (iii) Adoption and enforcement of legal and regulatory remedies to manage perception of abuse of dominance position, perceived anti-competitive behavior, unfair pricing treatment and lack of transparency.
- (iv) Implementation of open access regime for landing stations, international capacity and shared infrastructure protocols in the metropolitan domestic market.

Neutral Data Port: Cabo Verde to establish a data port within the Techno Park. This would allow data from other countries (e.g. Lusophone-speaking and ECOWAS countries) to be stored and processed in Cabo Verde's Data Center, but in accordance with their individual country-specific data jurisdictions. This neutral governance will further the position of Cabo Verde Cloud platform as an attractive alternative to other commercial platforms that facilitate digital development.

- Component 2 - Increasing Supply through International Broadband Access and promoting capacity and digitally-savvy workforce

Recognizing the progress made so far to deliver on the planned submarine cable linking Brazil and Portugal via landings at Cabo Verde, the Canary Islands and Madeira (so-called EllaLink), the project will address the security and redundancy for connectivity between the island. In terms of national backbone (inter-island fiber optic connectivity) the project will cover the need to invest in the replacement of some of the inter-island cable infrastructure,



notably to reinforce and secure the fiber optic to S. Vicente island where the Data Center security duplication premises is to be located.

In terms of Universal Connectivity Access, with extra available capacity, the aim will be to significantly reduce Cabo Verde's digital divide by providing universal connectivity access within the various islands of the archipelago through public-private partnerships. The project will support high-speed connectivity and access to online academic content for higher education institutions and secondary schools and enable more adoption of the WebLab program which seeks to empower the next generation of digital leaders for government and private sector.

- Component 3 - – Expanding Demand through data-driven applications and usage

Cabo Verde has significantly invested in establishing a world-class data center at the Technology Park in Praia. With seven levels of security, it hosts and manages data and already provides services to the Government of Cabo Verde, companies, banks, national and foreign entities. It is also designed to offer cloud computing services (Cloud services). According to NOSi, only 50% of the data center's capacity is currently utilized.

While we recognize that the utilization has almost doubled in the last two years, there is a significant potential for commercializing the remaining capacity and scale up the cloud infrastructure either by opening new markets regionally and/or focusing on target sectors with high consumption rates domestically (e.g., Media, Transport and Tourism). The implementation of Amilcar Cabral project will also provide direct opportunities for increasing data hosting demand and growing the market for cloud services. Four channels can be considered for realizing an increase in such demand:

**Digital Government Services:** Cabo Verde already has a head start with its digital government solutions and services strategy. There is an opportunity in expanding the development and adoption of such e-services nationally and regionally. New emerging innovations and services from public and private sector in Cabo Verde can be used as value-add plug-ins to the proposed Marketplace platform (i.e., IGRPweb).

**Data-Driven Industries' Clusters:** A future-forward approach will be necessary to attract businesses in selective high data-driven sectors (e.g., Media, e-Trade, Transport and Tourism) at the Technology Park. Two enablers can enhance such approach: availability of advanced skills and regulatory resorts. First, access to young talents with competencies in data generation, aggregation and analysis will assist in supporting various emerging digital clusters. Suggested initiative such as NOSi academia can create partnerships with private partners and foundations to crowd in financial and programmatic support for advanced digital skills development in Cabo Verde.

Secondly, by creating a regulatory sandbox at the Techno Park, the country will be encouraging further innovation and providing a testing Lab for harnessing disrupting technologies (e.g., Internet of Things, Blockchain, and Artificial Intelligence) in support of these industries. An incentive for start-ups, data-driven businesses and multi-national companies to leverage the country for such purpose will be a data governance and management deregulation while maintaining the principles of privacy and protection for consolidating trust in Cabo Verde as digital platform.

**Frequencies Release:** Finally, it is critical for Cabo Verde to anticipate the arrival of 5G and the possibilities for leapfrogging other regional countries for attracting related investment and talents. It is therefore necessary to take important measures to free up the frequencies for testing and scaling. Releasing the frequencies will enable investors



to install these networks and deploy the experimentation and proofs of concept. The logical next step will be to develop effective partnerships between operators and use case verticals in data-driven industries (i.e., transportation, media, education, etc.) to provide quality services to citizens and tourists domestically and regionally.

#### D. Environmental and Social Overview

D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social]  
The Cape Verde Islands are situated in the eastern Atlantic, ca. 500 km west of Senegal, West Africa. The archipelago consists of 10 islands (nine of which are inhabited) and several uninhabited islets.

Cabo Verde's population is growing at an average annual rate of 1.5% which, combined with the natural, landscape, and cultural conditions (which, through tourism, connects the archipelago to the outside world), explains the importance of biodiversity conservation in the country, in all its aspects - genetic, specific, taxonomic, ecological and functional. Apart from the ecological importance, biodiversity is the support of all economic activities, particularly (i) agriculture, forestry and livestock; (ii) fishing; (iii) seaside and beach tourism; (iv) water, recreational and leisure sports; and (v) ecotourism / nature tourism.

The proposed project will invest in the replacement of some of the inter-island cable infrastructure, notably to reinforce and secure the fiber optic to São Vicente island where the central Data Center redundancy and security duplication premises is to be located. This will also provide an enhanced graduation and potential for higher security certification of the current Data Center in Praia.

In order to achieve this, the project will have to carry out work in maritime areas between the islands of Cape Verde : the intra-island fiber cables between Santiago and São Nicolau and Santiago and Sal and the upgrade of the cable between Santiago and São Vicente. In addition, the Project may finance laying of terrestrial cable from these landing stations to connection points in or near urban centers, as yet to be identified.

The most important environmental aspect of this project concerns the submarine cable and ensuring the integrity of coral reefs and coastal areas. Cabo Verde, with its high biodiversity value, is a habitat for many species including water birds and migratory birds. However, there are still no indexes or indicators that allow for regular and systematic monitoring of biodiversity, which makes it complicated to present a real current status. In addition, between the islands of Cabo Verde, no area is considered an official Marine Protected Area (MPA) or Marine Managed Areas (MMAs). However, despite these shortcomings, several decrees have been drawn to classify certain coastal areas as nature reserves, which will allow to delimit the passage of cables near these areas (e.g. Decreto-Regulamentar n.º 1/2014 : delimitation of the Monte Alto das Cabaças Nature Reserve).

The eventual terrestrial cable-laying will likely present environmental and social risks similar to those traditionally associated with physical works. Land acquisition may be required for the construction of the landing stations as well as for the laying of fiber optic cables. The latter may also affect livelihood activities (e.g. roadside vending), especially if cable burying is required in or around densely populated urban centers.

In addition, potential temporary impacts on the livelihood of fishing communities could result from the works required to lay the submarine and territorial cables. The environmental and social risks will be assessed in-depth through the environmental and social assessment process during project preparation as technical details become finalized. Issues related to inclusive access to broadband services; affordability for end users; awareness and improvement of digital skills will also be considered in the ESIA.



**D. 2. Borrower’s Institutional Capacity**

The project implementation unit (PIU) has qualified environmental and social specialists with the necessary experience to manage the potential environmental and social risks and impacts of this type of projects. The PIU has prior experience with World Bank investment projects. PIU staff benefited from several rounds of trainings on the World Bank Operational Policies and, more recently, on the ESF. The PIU is currently supporting another project under preparation (under the ESF). Nevertheless, the wide geographic scope of the proposed operation and the high technical skills required for this type of ICT projects may require additional staffing that will be determined during preparation. During preparation, the World Bank project Team (including E&S specialists) will discuss with the PIU to determine team deployment and identify what additional resources, skill sets, or capacities will need to be strengthened. These will be reflected in the Appraisal ESRS.

**II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS**

**A. Environmental and Social Risk Classification (ESRC)**

Substantial

**Environmental Risk Rating**

Substantial

The environmental risk classification for the Project is substantial under the World Bank ESF, based on the nature of the project activities as presently known and given the local capacities and tight preparation timeline. The risk rating will be revisited when more details are known.

The project will cover a wide geographical area that spreads across the islands. Based on the nature and scale of the proposed project activities identified – the laying of cables across the islands, along the Cape Verdean coast and the deployment of terrestrial cables in or around urban coastal centers – this operation entails substantial environmental risks.

The Environmental risks that may arise are : (i) habitat disruption from the civil work activities of trenching to lay fiber optic cables, (ii) disposal and management of generic waste during the construction and exploitation phase and (iii) occupational health and safety of workers, (iv) nuisances related to air and noise emissions, (v) community health and safety and (vi) cultural heritage.

Although, majority of the impacts likely to be generated from the project activities can be mitigated with measures that are readily identifiable. As a mitigation measure, the Government has requested resources under the PPA increase the UGPE’s capacity to address requirement under the new Environmental and Social Framework (ESF).

**Social Risk Rating**

Moderate

The main social risk relates to the planned infrastructure works, including the replacement of some sections of the inter-island cable as well as land-based facilities such as landing stations and a data center in São Vicente. These civil works might entail land acquisition, leading to temporary or permanent physical or economic displacement. The scope and exact location of these potential impacts will only emerge during the feasibility studies.

Another risk associated with the civil works are negative impacts on communities as a result of labor influx, including the risk of gender-based violence and/or sexual exploitation. The scope of this risk will become clearer once the labor

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needs have been identified during project preparation. Similarly, any construction project raises the issue of labor conditions, including working hours, occupational health and safety, etc.

## **B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered**

### **B.1. General Assessment**

#### **ESS1 Assessment and Management of Environmental and Social Risks and Impacts**

##### ***Overview of the relevance of the Standard for the Project:***

While the project activities are expected to expand access to digital services, achieving these outcomes implies a number of environmental and social risks and impacts that will be identified throughout the environmental and social assessment process. Potential environmental and social risks and impacts relate to (i) risks to the submarine ecosystem from cable laying, (ii) environmental impacts at coastal points of presence when cables run to land, (iii) land acquisition for landing stations and for cable laying; (iv) potential impacts on livelihood activities along the routing of the terrestrial cables, potential livelihood impacts to coastal fishing communities from marine or coastal cable laying; (v) issues of community resistance, particularly fisherfolk who may perceive that the proposed activities negatively affect their activities and their food supply; (vi) occupational health and safety for marine- and land-based works; (vii) community health and safety related to any project interventions in populated areas, (viii) waste management and safe disposal of any construction debris, (ix) risks to both tangible and intangible cultural heritage and (x) risks related to labor influx from high- or low-skilled workers in the project areas.

The client will undertake an Environmental and Social Impact Assessment (ESIA) which will be informed by technical and feasibility studies. The ESIA will draw on international good practice and expertise in the digital development sector to help determine optimal cable placement and to develop measures consistent with the mitigation hierarchy to manage environmental and social risks and impacts.

To ensure that all risks related to terrestrial activities are adequately managed, the client will prepare an Environmental and Social Management Plan (ESMP) and if necessary, a Resettlement Action Plan (RAP) to elaborate management procedures around cable burying between landing stations and points of presence, e.g. in urban areas. The ESMPs and Bidding Documents prepared for the project will include a Health, Safety and Environmental (HSE) plan in line with World Bank Group Environment, Health and Safety (EHS) Guidelines.

The Environmental and Social Commitment Plan (ESCP) will summarize the material measures and actions for the project to meet the ESSs requirements. The agreed measures and actions between the Borrower and the Bank will be outlined in the ESCP with the timeline for completion and responsible parties, including the preparation of site specific ESMPs and RAPs, as needed, and additional risk management documents that may be identified during project preparation or during the elaboration of the ESIA.

##### **Areas where “Use of Borrower Framework” is being considered:**

The operation will not use the Borrower’s E&S Framework in the assessment, development and implementation of subprojects. The project will comply with relevant national legal requirements.

#### **ESS10 Stakeholder Engagement and Information Disclosure**



Due to the limited details available on planned physical activities and project level stakeholders at this stage, the Borrower - in collaboration with the Bank - will prepare by project appraisal an inclusive Stakeholder Engagement Plan (SEP) proportional to the nature and scale of the project and associated risks and impacts identified. Key stakeholders are the entities laying the cables, the entities owning and managing the cables, relevant government agencies, local communities, businesses, fisherfolk and civil society organizations concerned with environmental protection.

Stakeholder engagement will be an integral part of the preparation and overall project design process and will continue throughout preparation. The SEP will include differentiated measures to allow the effective participation of and communication with disadvantaged or vulnerable groups. The Borrower will seek stakeholder feedback and opportunities for proposed future engagement, ensuring that all consultations are accessible, inclusive and through suitable channels in the local context. The project will include appropriate institutional arrangements to carry out the stakeholder engagement process. The project will also include a grievance redress mechanism (GRM) to handle complaints by project-affected people regarding adverse temporary or permanent project impacts. The GRM will be responsive to the risk of GBV, and the need to be accessible to a wide diversity of stakeholder groups. It will also serve as a platform for continuous feedback from project-affected communities, other interested stakeholders and implementing structures.

## **B.2. Specific Risks and Impacts**

**A brief description of the potential environmental and social risks and impacts relevant to the Project.**

### **ESS2 Labor and Working Conditions**

This standard is relevant. The project activities, particularly the mass registration campaigns, will require the engagement and deployment of significant amounts of labor, including on a short-term basis. Therefore, the project is expected to include direct workers and contractors. There is a risk that these project workers might be subject to unfavorable contractual arrangements and working conditions. The project will prepare Labor Management Procedures which will set out: terms and conditions of employment; principles regarding non-discrimination and equality of opportunity; guidance on workers' organizations; policies on child and forced labor; measures for occupational health and safety; and, the establishment of a grievance mechanism for labor disputes. The LMP will include measures for addressing working condition and GBV/SEA risks, such as a Code of Conduct for PIU staff and contractors.

ESMPs and Bidding Documents prepared for the project will include a Health, Safety and Environmental (HSE) plan in line with World Bank Group Environment, Health and Safety (EHS) Guidelines. A Worker Health and Safety Plan will also be developed to cover site-specific job hazards, provision of preventive and protective measures for all hazards; information about safe working methods; and road safety measures. The plan will also include procedures on incident investigation and reporting, recording and reporting of non-conformances, emergency preparedness and response procedures and continuous training and awareness to workers.

Locally based GRMs specifically for direct and contracted workers, respectively, will be provided. Civil works contracts will incorporate E&S mitigation measures from the ESMP; LMP, EHS guidelines and OHS Plan. All civil works contracts will include Codes of Conduct and other measures specified in the GBV action plan to prevent GBV/SEA.





### **ESS3 Resource Efficiency and Pollution Prevention and Management**

This standard is relevant. The ESIA will include an assessment of how resources will be managed efficiently to minimize waste generation, harm to the marine or terrestrial environment, and the potential adverse impacts on human health. The ESMP in turn will present risk management procedures to manage these issues using the mitigation hierarchy and to deal with construction debris and hazardous or non-hazardous materials that may need to be disposed of. The ESMP will outline measures to ensure that any cable-laying activities minimize pollution and are integrated with high standards of disaster resilience, including flooding and seismic activity, between landing sites and points of destination.

During preparation, relevant domestic regulations and their enforcement will be reviewed against the requirements of ESS3 and the World Bank's applicable Environmental, Health and Safety Guidelines to support the assessment and mitigation measures proposed in the ESMP/ESCP. They will also be included as a requirement in civil works bidding documents.

### **ESS4 Community Health and Safety**

This standard is relevant. During construction: The Borrower will ensure that plans are in place to mitigate the risks associated with construction activities to direct beneficiaries and neighbors. Key risks relate to construction works required to lay cable that may change traffic patterns impacting road safety conditions, dust, noise and vibration, safety for construction areas including exposure to hazardous materials and possible health risks associated with inappropriate storage/use of chemicals; health risks linked to inappropriate disposal of waste. Other risks relate to potential obstruction of access to fishing grounds due to the construction of the landing stations, and potential issues related to labor influx, including GBV/SEA. These and other issues will be reflected in the ESMP, which will provide guidance on the development of measures to address aspects associated with construction activities (e.g. traffic management plans) to be included in the contractor's bidding documents.

During operation: the ESMP will include guidelines for the development of site-specific Emergency Response and Preparedness Plans, which will include general emergency response and preparedness planning and training procedures, as well as operations-phase facility maintenance requirements.

During preparation, relevant domestic regulations and their enforcement will be reviewed against the requirements of ESS4 and the World Bank's applicable Environmental, Health and Safety Guidelines to support the assessment and mitigation measures proposed in the ESMP/ESCP. They will also be included as a requirement in civil works bidding documents.

### **ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

This standard is potentially relevant. While most of the civil works involve the replacement/upgrade of the inter-island submarine cable, some small terrestrial components such as landing station and a data center are being planned. The ESIA in conjunction with the technical feasibility studies will identify the need for land acquisition or restrictions on land use resulting from these activities. In such a case a Resettlement Action Plan (RAP) will be prepared and disclosed prior to appraisal.



**ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

This standard is relevant. The project will cover a wide geographic area that spreads across the islands. Cabo Verde is endowed with natural resources and ecologically sensitive ecosystems. The ESMP will provide mitigation measures to ensure that project activities, if any, do not cause any harm or alter habitat. The ESIA will present alternatives to avoid harm to ecologically sensitive areas.

**ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities**

Not relevant, as there are no IP/SSAHUTLCs in the project area.

**ESS8 Cultural Heritage**

Though the proposed operation will have limited infrastructure works, excavations, movement of earth, quarrying and impounding and associated civil works will be undertaken. These types of activities may lead to the discovery of known and unknown physical and cultural resources. The borrower will avoid impacts on both tangible and intangible cultural heritage and where such avoidance is not possible, will identify and implement measures to address these impacts in accordance with the mitigation hierarchy. The treatment of Physical and Cultural Resources (PCR) including archaeological relics, fossils, human graves, shrines that may be encountered will follow Chance Finds Procedures that will be elaborated in the Environmental and Social Management Plan. They will also be included as a requirement in civil works bidding documents.

**ESS9 Financial Intermediaries**

Not relevant, as this is not an FI operation.

**C. Legal Operational Policies that Apply**

**OP 7.50 Projects on International Waterways** No

**OP 7.60 Projects in Disputed Areas** No

**III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE**

**A. Is a common approach being considered?** No

**Financing Partners**

No other Financing Partners

**B. Proposed Measures, Actions and Timing (Borrower’s commitments)**

**Actions to be completed prior to Bank Board Approval:**



Prior to appraisal, the client will prepare a Environment and Social Impact Assessments (ESIA) and draft Environmental and Social Management Plans (ESMP) acceptable to the Bank  
 Labor Management Procedure as a part of ESMP  
 GBV Action Plan as a part of the ESMP  
 The ESIA will be consulted on with stakeholders prior to finalization, reviewed and approved by the Bank, and publicly disclosed  
 Preparation and disclosure of Stakeholder Engagement Plan (SEP)  
 Preparation of the ESCP

**Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):**

Implementation of ESMPs and schedule for monitoring implementation of ESMPs.  
 Development and implementation of a proportional Health, Safety and Environmental (HSE) plan in line with World Bank Group Environment, Health and Safety (EHS) Guidelines (for construction activities);  
 Details about the elements and timing of activities for delivery and implementation of the SEP  
 Establishment and implementation of GRM  
 Implementation of SEP.

**C. Timing**

**Tentative target date for preparing the Appraisal Stage ESRS** 31-Dec-2020

**IV. CONTACT POINTS**

**World Bank**

Contact: Jerome Bezzina Title: Senior Digital Development Specialist

Telephone No: 5220+37520 / Email: jbezzina@worldbank.org

Contact: Maria Claudia Pachon Title: Senior Digital Development Specialist

Telephone No: 5220+85206 / Email: mpachon@worldbank.org

**Borrower/Client/Recipient**

Borrower: Olavo Correia

**Implementing Agency(ies)**

Implementing Agency: Secretary of State for Innovation and Technical Training at Government of Cabo Verde

**V. FOR MORE INFORMATION CONTACT**

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The World Bank  
1818 H Street, NW  
Washington, D.C. 20433  
Telephone: (202) 473-1000  
Web: <http://www.worldbank.org/projects>

## VI. APPROVAL

Task Team Leader(s):	Jerome Bezzina, Maria Claudia Pachon
Practice Manager (ENR/Social)	Maria Sarraf Recommended on 11-Nov-2019 at 19:59:5 EST
Safeguards Advisor ESSA	Hanneke Van Tilburg (SAESSA) Cleared on 18-Nov-2019 at 13:45:41 EST