



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 02-Dec-2019 | Report No: PIDC27777

**BASIC INFORMATION****A. Basic Project Data**

Country Haiti	Project ID P171976	Parent Project ID (if any)	Project Name Haiti Digital Acceleration Program (P171976)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date May 11, 2020	Estimated Board Date Jul 23, 2020	Practice Area (Lead) Digital Development
Financing Instrument Investment Project Financing	Borrower(s) Ministère de l'Economie et des Finances d'Haïti	Implementing Agency Ministère des Travaux Publics, Transports et Communications	

Proposed Development Objective(s)

The Project Development Objectives are to expand access, increase quality and reduce cost of high-speed internet and digital services, and lay the foundation of the enabling environment for digital technology adoption.

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	60.00
Total Financing	60.00
of which IBRD/IDA	60.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	60.00
IDA Grant	60.00

Environmental and Social Risk Classification

Concept Review Decision



Substantial

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

Haiti is a low-income country and one of the poorest countries in the Region. Political instability and climate disasters are contributing to slow development and weak institutions. Haiti's population is around 10.9 million which make it the third most populated country in the Caribbean. Based on the most recent household survey (2012), over 6 million Haitians lived below the poverty line (less than US\$2.41 per day), and more than 2.5 million lived below the extreme poverty line (US\$1.23 per day). The low earning power of the population affects people's ability to pay even for essential services, rendering the cheapest communications services not affordable for almost half of the population.

Haiti is also highly vulnerable to natural disasters, mainly hurricanes, floods and earthquakes. In the past decade, natural disasters devastated the country, weakening its economy and destroying its infrastructure. Climate change exacerbates these risks. To address these climatic hazards, the country has continued to build resilience with the support of its partners, including the World Bank. Physical infrastructure for communications was strongly hit, along with more than 500 schools, and many hospitals. Telecommunications connectivity is crucial in times of disaster, but at the same time itself prone to destruction and damage. Strengthening the resilience of the connectivity networks, along with putting in place a strategy for communications under disaster is critical for the disaster risk management and climate change adaptation of Haiti. Use of technology was proven to be a determinant factor for disaster and climate resilience by helping to warn the population and increasing the efficiency of interventions of first responders.

Improving broadband connectivity paves the way for an inclusive digital economy in Haiti which could strengthen the services sector, provide economic opportunities for lagging regions and the youth and accelerate growth. Developing the digital infrastructure and backbone allows the Haitian population to enjoy the advantages of a digital economy. Research shows that the arrival of submarine cables in 8 African countries is tied to a 4% to 10% rise in employment in those countries¹. Improving connectivity has a great potential in diversifying the economy, building a competitive services sector and strengthening the public services, all of which are critical for Haiti's path towards an inclusive and sustainable economy. High-speed Internet encourages the expansion of companies in information technology heavy sectors like finance and increases the productivity of manufacturing firms. By improving connectivity, Haiti could also attract more investors and be better connected to the world economy.

Access to mobile broadband is limited to roughly half of the population. Two main mobile operators and one Internet Service Provider provide communications services in Haiti. Digicel and Natcom (Viettel) have 70% and 30% mobile market share respectively. Both provide 3G services with around 85% population coverage, while 4G has only been recently launched. Whereas there is a high level of coverage, access to services is limited to major cities and broadband quality is

¹ Source: Published in the flagship journal for economics, the AER, in March 2019: Hjort, Jonas, and Jonas Poulsen. 2019. "The Arrival of Fast Internet and Employment in Africa." American Economic Review, 109 (3): 1032-79.

<https://www.aeaweb.org/articles?id=10.1257/aer.20161385>. The research exploits the gradual arrival of submarine Internet cables on the coast and uses robust difference-in-differences estimates from 3 datasets, covering 12 countries. The effect was true for both educated and less educated worker groups—with little or no job displacement – but more so for more educated groups.



a major concern. According to the GSMA, only 56% of the Haitian population had a mobile-cellular subscription in 2019, far below the regional average of 106%², and only 30% had mobile internet subscriptions. Access to fixed broadband is very low and reached only 0.3% of the population in 2018.

Haiti's Internet bandwidth is much lower than in other Caribbean countries. Haiti and Dominican Republic together account for 48% of the Caribbean population. A study by Google³ in the aftermath of the 2010 earthquake shows that the Dominican Republic has 35 times the bandwidth of Haiti. At about 0.5% penetration, Haiti's fixed-line tele-density is amongst the lowest in the world, partly as a result of the damage resulting from hurricanes and the 2010 earthquake. The study recommends that a long-term infrastructure strategy that links to submarine cables in the region is critical to improve mobile broadband penetration levels.

The affordability⁴ of internet and mobile services are one of the major barriers for Haitians to connectivity. The high cost of infrastructure deployment (CAPEX and OPEX) are some of the main drivers of these high prices. The vulnerability of the island to climate risks, including landslides and hurricanes, complicated geography as well as cost of fuel and energy, imposes high costs of maintenance to the telecommunication companies. One of the main issues is the lack of a reliable power supply and roads that are reliable and that reach the whole country. Additionally, the market structure and the need for more competition are also factors affecting affordability of Internet and mobile services in Haiti.

Haiti is lagging the region on all foundational elements of the digital economy, including its sector and regulatory framework. The legal and regulatory framework governing the sector in Haiti is outdated and weak. The main legal texts and laws date back to the 1970s, including the Telecom Act of 1977. The latest legal text "Loi Organique du Conatel" defining the governance and powers of the regulator was adopted in 1987. Despite many efforts during the past two decades, the legal framework and general policies of the sector have not been modernized. Thus, there is no clear vision for the development of the sector, and the legal framework is not at par with today's market needs and technological advancement. On digital platforms dimension, a key aspect to improve service delivery and reap digital dividends, Haiti is also lagging, with no digital agenda and ranking poorly on the UN e-Government index⁵, and similarly it is lagging on the cybersecurity pillar according to the ITU index⁶.

Relationship to CPF

The proposed project is aligned with Haiti's Country Partnership Framework. The CPF⁷ identifies opportunities for the country to address its development challenges. Specifically, the project aligns with the following priority areas of focus:

- **Area of Focus #1- Inclusive growth:** The project provides high speed connectivity to areas that are lagging, reduces the cost of broadband so it is affordable to the poorest and builds the capacity of the coastal cities to enhance their income opportunities.
- **Area of Focus #2 – Strengthen and harness human capital:** The project aims to build digital skills and support digitalization of access to finance, health and education services through digital technologies.

² Source: GSMA intelligence, and ITU, 2017

³ <https://www.google.org/docs/Haiti.pdf>

⁴ Fixed broadband basket % GNI is 155% and the cheapest monthly plan with Digicel is 500 HTG for 3GB equivalent to 11.7% of GNI per capita

⁵ UN e-Gov index: <https://publicadministration.un.org/egovkb/en-us/Data-Center>

⁶ ITU Cybersecurity Index: https://www.itu.int/dms_pub/itu-d/opb/str/D-STR-GCI.01-2018-PDF-E.pdf

⁷ <http://documents.worldbank.org/curated/en/673911467986337757/pdf/98132-CPS-IDA-R2015-0243-IFC-R2015-0256-MIGA-R2015-0076-Box393199B-OUO-9.pdf>



- **Area of Focus #3 – Build resilience:** The project supports development of the foundational elements of Haiti’s digital economy, supporting economic diversification and building greater resilience of the economy. The project will also support physical resilience of connectivity networks to minimize impact and increase speed of recovery.
- **Cross cutting themes – Governance, Accountability, sustainability:** the project supports the foundational elements of governments digitization through connectivity to government buildings and capacity building.

C. Proposed Development Objective(s)

The Project Development Objectives are to expand access, increase quality and reduce cost of high-speed internet and digital services, and lay the foundation of the enabling environment for digital technology adoption.

Key Results (From PCN)

Outcome	Indicator (PDO-level)
Increased broadband internet adoption	Broadband penetration (fixed + mobile) ⁸ , including gender aspect
Increased use of digital services	% of individuals accessing services digitally such as mobile money.
Reduced the cost of broadband	Mobile and fixed broadband prices as % of GNI per capita
Improved digital skills	Number of individuals trained through (including gender aspect);
Increase in private sector investment	Amount of private sector investment in the sector due to the project

D. Concept Description

The goal of the project is to improve access and affordability to broadband internet services, broadband being the foundation of foundations in the digital economy. Overall, the project will help build the foundations for Haiti’s digital economy while increasing the competitiveness of the private sector, contributing to the development of lagging cities and areas and bringing new job opportunities for the youth. There is a considerable need to develop broadband infrastructure, and the digital ecosystem in Haiti in general: development of the enabling environment for investment, usage of digital services, development of skills, and entrepreneurship. Engagement with Haiti on the digital economy will thus be a multistage approach, starting with the most pressing digital infrastructure priorities and the foundational elements of the digital economy.

The priorities for digital infrastructure are to connect coastal cities with high speed broadband services, broadband being the foundation of foundations in the digital economy. These priorities were discussed with the Government and various private and public stakeholders, who identified the coastal cities, where most of the Haitian population is concentrated, as one of the priority areas for improving access to broadband internet services. Currently these cities are connected through terrestrial backbone links (underground and aerial fiber, and microwave) to the capital Port-au-Prince. The capital is the center of service delivery of networks and where undersea cables linking Haiti to the global internet network is concentrated. However, this infrastructure is weak, prone to recurrent cuts and vandalism, and is very expensive to maintain.

The Government has also raised the issue of the lack of connectivity at main government departments across the country, and at educational establishments and hospitals. This project aims at servicing these end users to provide high speed connectivity to unconnected establishment including schools, hospitals and government departments. Health information systems can be supplemented by broadband connectivity for disease resilience. Rwanda⁹ provides a good

⁸ [Delta between the baseline at preparation and then targets for each year](#)

⁹ <https://www.msh.org/resources/electronic-infectious-disease-surveillance-and-response-eidsr-system-in-rwanda>



example of an electronic disease surveillance system that relies on broadband connections in remote health centers to detect malaria outbreaks. In Liberia¹⁰, the authorities are developing a project to connect health centers and provide high-speed internet access to enable telemedicine. The authorities seek to improve health management based on findings during the Ebola crisis where poor internet access and slow paper-based communications systems made it difficult to know how the epidemic was spreading or how to contain it.

An undersea cable would provide better connectivity to the coastal cities. A more efficient and sustainable way to connect the coastal cities is undersea cables linking the coastal cities in a loop. This network will directly impact the inhabitants of large and secondary coastal cities that are poorly connected, estimated at around 3 million inhabitants, about third of the Haitian population, in addition to the population in the capital Port-au-Prince. This network can:

- Connect lagging regions along the coast which have no connectivity so far
- Provide all cities and communities with a reliable and abundant access to broadband
- Reduce the cost of maintenance and thus reduce the price of internet connectivity to the end users.
- Connect main public service institutions to each other and to citizens
- Connect at a later stage the inland remote village population

1. Description

In summary the proposed project components are:

Component 1: Enabling environment, digital services and skills for digital economy: This component will include the review, consultation and advice on the sectoral ICT policy and the provision of best practices, the review and consultation on the legal, institutional and regulatory framework of the digital economy sector, and support the strengthening of cybersecurity framework and capacity building for public sector actors. This will help due diligence on the enabling environment for the other digital economy pillars, including digital finance. This component will also include the identification and support in the development of digital services and skills. The project will identify priority skills to help the uptake of broadband and of digital services as well as improve social inclusion and digital awareness particularly in the areas where new networks or services will be deployed. This includes skills and services for e-Government, mobile financial services, entrepreneurship among the other pillars of the digital economy. The component will focus on cross-cutting enablers of service delivery for government payment platforms and mobile authentication mechanism. The ability to pay digitally is a critical foundation for the digital economy and can have a big impact on downstream access rates. This is not only a compelling use case for the poor to pick up a mobile subscription, but it is also a critical enabler for accessing digital public services and participating in eCommerce, particularly among the most marginalized who may not have access to traditional banking services

Additionally, this component will seek to increase competition in the market through different methods that will be explored such as i) introducing a new license, ii) designing the bid for broadband connectivity in a way to maximize the chance of new entry (such as splitting backbone and last mile), and iii) incorporate best practice principles into the contract provisions. The component will also provide downstream support for the adoption of the enabling environment and strengthening the government's capacity for monitoring and compliance.

Component 2: Broadband connectivity: This component will improve and expand high speed broadband connectivity to target beneficiaries in the main coastal cities of Haiti. During preparation, the different options for delivering broadband networks will be evaluated and assessed based on the pros on cons that each option has on the market development, economic and financial feasibility, technical design, client implementation capacity, maximizing finance for development and private sector participation and impact on beneficiaries, and the overall

¹⁰ <https://www.iafrikon.com/2017/07/31/government-of-liberia-csquared-and-usaid-announce-connectivity-investments-for-liberia/>



enabling environment for the digital economy. The preparation will also provide more details on the ultimate beneficiaries and strategies (and determining the number of people impacted which is around 3 million direct beneficiaries as per initial research). Additionally, action plans will need to be developed to mitigate risks of social exclusion and improve digital awareness.

Component 3: Contingent Emergency Response (CERC): This is an emergency component to anticipate needs in the event of natural disasters. The component will be triggered and disbursed in accordance with an Emergency Action Plan prepared by the Government and the CERC's implementation modalities.

Component 4: Project management and implementation. The project will be implemented by the Ministry in charge of Telecommunications and Transport (MTPTC) who is already hosting a project implementation unit in charge of implementing several World Bank projects, the UCE (Unité Centrale d'Exécution des Projets).

2. Overall Risk and Explanation

The overall project risk has been identified as Substantial, due to the fragile political and governance context, paired with the need to strengthen the implementation capacity of counterparts. Social unrest and macroeconomic situation can potentially affect implementation. The project aims to decreasing the cost of communications and facilitating the usage of digital services, and the implementation will require little ongoing maintenance and other institutional capability to continue delivering benefits. The project will minimize design complexity as much as possible and provide technical assistance to strengthen the operational capacity of public institutions. The project will mitigate fiduciary risks by using the already staffed and experienced PIU to implement the project. Based on the nature and scale of the proposed project activities, this operation entails substantial environmental and social risks. The project will invest in digital skills, capacity-building and accessibility measures to improve access to broadband services reduce barriers such as affordability, exclusion of certain segments of the population, and lack of digital awareness.

E. Economic Analysis

1. Briefly describe the development impact in terms of expected benefits and costs

A detailed economic and financial analysis will be carried during project preparation.

- Provide reliable connectivity to major points and cities that act as a distribution point for high speed broadband services to inner and lagging areas
- Decrease in the CAPEX and OPEX for backbone and intercity connectivity which will have a considerable impact on the operational cost for operators and therefore the affordability of services.
- Directly impact at a minimum all coastal population (around 3 million) and at a maximum all population with an improved access to broadband services.

2. Rationale for public sector provisioning/financing, if applicable

The cost of providing connectivity in all the targeted areas is above what private operators can finance alone. The government intervention through this project will facilitate the consolidation of infrastructure, the expansion of networks, which will reduce the cost of investment and of maintenance, and thus increase the adoption and usage of broadband services.

3. Value added of the Bank's support

The development of digital infrastructure and the enabling foundations of the digital economy has been developed and tested through WBG programs in other regions, including in the Caribbean region. This contrasts with the more siloed or smaller scale approaches supported by other institutions in this space that may not be able to bring together all sectors and arms of government necessary to achieve something bigger than the sum of its parts.



F. Implementing Agency Assessment

The project implementation unit (PIU) will be hosted at the Ministry of Public Works and Communications building upon the existing PIU, MTPTC-UCE (Unité Centrale d'Exécution des Projets) that has proven capable of preparing and implementing infrastructure operations in the sector. UCE has the required project coordination, fiduciary (procurement, financial management), monitoring and evaluation, and environmental and social safeguards expertise.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No
Summary of Screening of Environmental and Social Risks and Impacts	

Environmental and Social risks and impact screening will be undertaken throughout preparation, taking into account initial risk and impacts identified in the ESRS as well as any other risk factors identified during the environmental and social assessment process. Environmental and Social risk is classified as Substantial, which may be revised once precise parameters of project interventions are known, taking into account contextual risk related to governance and institutional capacity in Haiti.

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