

# Technical Cooperation Document

## I. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	Digital Connectivity Framework
▪ TC Number:	RG-T4239
▪ Team Leader/Members:	Garcia Zaballos, Antonio (IFD/CMF) Team Leader; Iglesias Rodriguez, Enrique (IFD/CMF) Alternate Team Leader; Acevedo Calle, Daniela (LEG/SGO); Maribel Dalio (IFD/CMF); Marquez, Claudia (IFD/CMF); Martinez Lopez, Cynthia (IFD/CMF); Puig Gabarro, Pau (IFD/CMF)
▪ Taxonomy:	Research and Dissemination
▪ Operation Supported by the TC:	.
▪ Date of TC Abstract authorization:	February 16 <sup>th</sup> , 2023
▪ Beneficiary:	IDB member countries in Latin America and the Caribbean (LAC)
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	OC SDP Window 2 - Institutions(W2C)
▪ IDB Funding Requested:	US\$250,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	36 months (36 months for execution)
▪ Required start date:	April 15 <sup>th</sup> , 2023
▪ Types of consultants:	Firms
▪ Prepared by Unit:	IFD/CMF-Connectivity Markets and Finance Division
▪ Unit of Disbursement Responsibility:	IFD/CMF-Connectivity Markets and Finance Division
▪ TC included in Country Strategy (y/n):	n
▪ TC included in CPD (y/n):	n
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Productivity and innovation; Institutional capacity and rule of law; Gender equality

## II. Objectives and Justification of the TC

**2.1 Impact of digital connectivity.** The World Economic Forum (WEF) defines competitiveness as the set of institutions, policies and factors that determine the level of productivity of a country. The current level of competitiveness in Latin America, according to the Global Competitiveness Index (GCI) is low. One of the pillars that make up the GCI is the adoption of Information and Communication Technologies (ICT), since digitization and increasing access to digital connectivity is one of the key factors. Additionally, digital connectivity has a positive impact on the achievement of the Sustainable Development Goals (SDG). According to a Bank publication<sup>1</sup>, connectivity can contribute to: (i) exiting the cycle of poverty; (ii) improve food security; and (iii) provide job opportunities and access to knowledge.

<sup>1</sup> García, A. et al. (2019). [The Impact of Digital Infrastructure on the Sustainable Development Goals: A Study for Selected Latin American and Caribbean Countries](#).

- 2.2 **Limited level of digital infrastructure.** According to the Broadband Index published by the Bank<sup>2</sup>, in Latin America and the Caribbean (LAC), only 86% of the population is covered by high-speed mobile broadband networks compared to 98% in the Organization for Economic Cooperation and Development (OECD). Regarding fixed broadband, the penetration of fiber optic lines is 5 times lower than that of the OECD countries. This limitation is especially evident in rural parishes with difficult access. Regarding public institutions, internet access in primary schools in the Region is only 39%, while in OECD countries it is 97%. Plus, there is an affordability issue. For the 40% of the population with the lowest income, hiring a fixed or mobile BA service represents, respectively, 21% and 5% of monthly income, well above the OECD countries (2% and 3%). The main determinant of this limited offer of digital infrastructure is the low profitability of rural and low-income regions where the population density is low and therefore the potential market is small. In this sense, the cost of providing infrastructure to these areas is very high.
- 2.3 **Lack of information.** The lack of information about digital infrastructure in the Region is a significant challenge for policymakers and other stakeholders who need to make informed decisions about technology investments and usage. In most countries there is a lack of information about digital infrastructure investments, operations, and performance. This can be due to various reasons, such as protecting sensitive information, limited capacity among public officials, and insufficient resources or robust reporting mechanisms in place.
- 2.4 **Digital capabilities.** Latin America and the Caribbean has a very low level of digital skills. According to the WEF, digital skills in the workforce reached 3.6 points out of 7, below the OECD data (4.91). This gap is most pronounced in rural and low-income areas. The main determinants of low digital skills are: (i) ignorance of digital technologies by the population; (ii) limited offer of digital training; and (iii) limited offer of digital solutions.
- 2.5 In 2014, the Bank developed the IDBA "Broadband Development Index", a socioeconomic index that takes a holistic approach to measure the degree of broadband development with a special focus on the LAC region. The IDBA offers a holistic approach to assess the status quo of the broadband and digital ecosystems in the LAC region and, more importantly, to identify areas where more effort is needed. Any policymaker, government or international organization can use IDBA to identify areas for improvement and to find examples of countries within and outside the region that can be used as a model for those at an earlier stage of broadband development.
- 2.6 The IDBA is calculated by aggregating 63 variables aggregated around four pillars: public policy and strategic vision, strategic regulation, infrastructure and applications, and capacity. In addition, the IDBA allows the comparison between a given country and its region, and it is possible to match the results sought with the variables and indicators present in the index. Currently, the IDBA data is updated until the year 2021.
- 2.7 In 2017, the Bank developed a publication<sup>3</sup> about the digital economy. As part of this publication a specific index was created (IDEA) with information about the main pillars

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<sup>2</sup> García, A. et al. (2021). [\*Informe anual del índice de Desarrollo de la Banda Ancha: brecha digital en América Latina y el Caribe: IDBA 2021.\*](#)

<sup>3</sup> García, A. et al., (2017): [\*Economía digital en América Latina y el Caribe: Situación actual y recomendaciones.\*](#)

needed to develop the digital ecosystem: digital infrastructure, people skills, finance sector.

- 2.8 **Gender gap in internet use.** The percentage of men who use the Internet is 3 points higher than that of women. According to a report by the Economic Commission for Latin America and the Caribbean (ECLAC), this gap is more widespread in rural areas. A determinant of lower use by women is the low participation of women in the ICT sector, motivated in part by the lack of digital skills. This inequity translates into greater barriers for women to take advantage of digital technologies (e.g. online financial services, online education, online work) to close other existing gender gaps.
- 2.9 The objective of this TC is to assess the digital ecosystem status and define a framework for the development of digital connectivity in Latin America and the Caribbean.
- 2.10 This TC will support the development of an innovative agenda for the LAC region. By providing regional and comparable information about the status of digital infrastructure, countries in the Region can identify where to direct public investment, which will contribute to the goal of digital transformation. The TC is expected to be a major supporter of the IDB operational agenda by identifying specific investment needs in our counterparts.
- 2.11 Alignment with previous Technical Cooperation. The proposed TC is aligned with the program of TCs supporting digital transformation in the region. Previous TCs have focused on assessing the status of broadband at the national level, promoting the development of public policies or regulatory reform, or conducting feasibility studies to improve digital infrastructure in specific countries. The innovative aspect of this TC lies in its focus on developing a regional database with comparable information, which will enable countries in the region to identify common challenges and opportunities for digital infrastructure development. Additionally, the ad-hoc methodology for estimating costs and benefits will help policymakers and other stakeholders to assess the potential impact of digital infrastructure investments, enabling them to prioritize projects that offer the greatest benefits for the region.
- 2.12 **Strategic alignment.** The TC is consistent with the Second Update of the Institutional Strategy 2020-2023 (AB-3190-2) and aligns with the development challenges of: (i) Social Inclusion and Equality, by providing inclusive infrastructure services that will allow the continuity of the public services and the equality between urban and rural areas; and (ii) Productivity and Innovation, as it is aimed at allowing LAC Countries to be able to innovate and use ICT to enhance productivity and service provisions in the new age of IT. Also, is aligned with the cross-cutting challenge of: (i) Institutional Capacity and Rule of Law, by strengthening the institutions and regulations that contribute to the sustainability of the connectivity plan; and (ii) Gender Equality, since will define public policies based on the existing digital infrastructure gap that may contribute to reduce the gender gap in access to digital connectivity. Additionally, the TC is aligned with the following strategic policy objectives of the Strategic Program for Development Financed with Ordinary Capital (GN-2819-14): (i) strengthen the capacity of the State; (ii) provide inclusive infrastructure services; (iii) establish smart institutional frameworks; and (iv) improve regional infrastructure. In addition, this TC is expected to contribute to the following indicators of the Corporate Results Framework (CRF): (i) telecommunications infrastructure, contributions aimed at developing the extension and quality of telecommunications infrastructure, including infrastructure; and (ii) public policy in telecommunications; contributions aimed at

increasing fair competition and transparency of regulatory policy and reforms within the telecommunications sector. Finally, the TC is aligned with the Ordinary Capital Strategic Development Program (GN-2819-14) since it will define the set of projects to be included as part of the investment master plan included in the national connectivity agenda by promoting sustainable and resilient infrastructure as well as by promoting inclusive social development through a connectivity plan that improves the digital transformation.

### **III. Description of activities/components and budget**

- 3.1 The objective of this TC is to assess the digital ecosystem status and define a framework for the development of digital connectivity in Latin America and the Caribbean. The activities proposed in this TC are divided in two main components: (i) Component 1 will focus on gathering information to assess the current status of digital connectivity in the Region; (ii) Component 2 will finance the development of a suite of solutions to foster digital development. These two activities complement the previous work the work has done on digital infrastructure and will provide a fine tuning of the magnitude of a GIS digital infrastructure gap and the impact that closing the gap may have on the economy and the provision of social services.
- 3.2 **Component 1. Digital Ecosystem Diagnosis (US\$50,000):** This component will finance the activities needed to assess the degree of digital development in the LAC region. The process will be executed in 2 parts: the first activity will evaluate the status of broadband infrastructure, public policies and regulatory frameworks throughout the region. The second activity will focus on the digital economy, i.e., the applications and services that can be deployed over digital infrastructure.
- 3.3 **Activity 1.1. Broadband Ecosystem.** For each country in the LAC and in relation to the best practices from the OECD regions, the activity will finance the gathering of information regarding digital infrastructure, public policies and regulatory frameworks. The information will be used to update Broadband Development Index (IDBA) and its associated reports.
- 3.4 **Activity 1.2. Applications Ecosystem.** This activity will assess the status of the applications ecosystem in the LAC in comparison to the OECD region. The information will be used to update the Applications Ecosystem Development Index (IDEA) and its associated reports. This index is analyzing the use of digital solutions based on the following pillars: (i) Social and Economic Framework; (ii) Information and communications Technology ecosystem; (iii) Support and financing; (iv) Regulatory and political framework; and (v) entrepreneurship ecosystem. The result of this index will complement the broadband development index that annually the Bank is publishing since it will include an assessment on which particular sectors of the economy could benefit the most from the digitalization process and the access to digital infrastructure.
- 3.5 **Component 2. Toolbox to promote digital development in LAC (US\$200,000):** Considering the degree of digital maturity in each of the beneficiary countries, the following activities will be developed.

- 3.6 **Activity 2.1. Regional characterization.** For each country<sup>4</sup>, this activity will finance the characterization of the population according to the degree of digital maturity, level of income, urban/rural, gender.
- 3.7 **Activity 2.2 Sectoral Review.** This activity will finance, for each country, the identification of the main sectors of economic activity where access, adoption and use of internet access services would have the greatest impact.
- 3.8 **Activity 2.3. Public policy and regulatory recommendations that foster sustainable private investment.** This activity will finance the development of a combination of potential uses and solutions for the LAC countries, depending on their different levels of digital maturity. The set of recommendations will consider regulatory reforms and public policies, including public-private investment recommendations.
- 3.9 **Activity 2.4. Cost benefit analysis.** This activity will finance, for each recommended solution in the previous matrix, the design of a cost benefit analysis that will measure the expected impact and economic returns of the proposed recommendations. As part of this activity the technical cooperation is expected to disseminate the results through an interactive platform that will allow users to have a better sense on the potential impact that bridging the digital infrastructure gap may have. As part of the dissemination the technical cooperation will publish reports that compare the state of the art in all the beneficiary countries and will provide specific recommendations and actions to be considered as part of a policy reform.
- 3.10 **Expected results.** The main expected results of the project are: (i) a better picture of the status of the digital ecosystem in the LAC region and the current GAP with OECD countries; and (ii) an actionable set of recommendations that can be implemented to attack the identified gaps. The beneficiaries of this technical cooperation will be the different stakeholders involved within the digital ecosystem, particularly, private sector, civil society, academia and foremost the different institutions within the governments interested in defining the most cost-efficient way to provide connectivity across the country. Also, the technical cooperation will benefit the Bank since it will provide a better understanding on the magnitude of the gaps and the specific impacts which will ultimately contribute to have a more comprehensive dialogue with the Authorities from the Region.
- 3.11 **Budget.** The total cost of this TC will be US\$250,000 which will be financed by the OC Strategic Development Program Window 2 – Institutions (W2C). The contribution will finance the hiring of consulting services (firms) for the development of the activities. Table 1 details this budget:

**Table 1. Indicative Budget in USD\$**

Activity/Component	Description	IDB/W2C	Total Funding
<b>Component 1</b>	Digital Ecosystem Diagnosis	50,000	50,000
<b>Component 2</b>	Toolbox to promote digital development in LAC	200,000	200,000

<sup>4</sup> The activities are regional and for the 26 countries, subject to the availability of information. In the event that the databases used do not have information for any country, the best effort will be made to obtain the information through alternative means.

	<b>TOTAL</b>	<b>250,000</b>	<b>250,000</b>
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#### **IV. Executing agency and execution structure**

- 4.1 The executing agency will be the Bank through the Connectivity, Markets, and Finance Division (IFD/CMF), a division with the knowledge and experience executing similar types of demand-driven Regional TC programs with the objective of promoting access to digital connectivity infrastructure. Furthermore, the Bank is considered to have adequate systems to guarantee the proper execution of the operation and ensure the sustainability of the implementation of the project in line with Annex 2 of "Operational Guidelines for Technical Cooperation Products" (OP-619-4). Likewise, the TC team has the necessary experience to ensure compliance with the relevant procurement policies and procedures. All contracting services will be conducted by the Bank, including executing the activities in coordination with, focal points in the Country Offices designated to coordinate the work with the beneficiary countries.
- 4.2 Furthermore, the Bank is experienced in working with international networks to produce studies of this nature and can ensure the sustainability of the implementation of the project in line with the Operational Guidelines for Technical Cooperation Products (GN-2629-1) and Procedures for the Processing of Technical Cooperation Operations and Related Matters (OP-619-4 Annex II, C 2.2). Supervision and coordination of the consultant's work will be the responsibility of Antonio García Zaballo (IFD/CMF), Team Leader.
- 4.3 **Procurement.** The Bank will be responsible for the selection and hire of the consulting services. All activities to be executed under this TC have been included in the Procurement Plan (see Annex II) and will be contracted in accordance with Bank policies as follows: (i) AM-650 for Individual consultants; (ii) GN-2765-4 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature; and (iii) GN-2303-28 for logistics and other related services. These activities are scheduled for completion within 36 months of approval of the TC. All products from this TC will be the intellectual property of the Bank.

#### **V. Major issues**

- 5.1 This project entails two risks that could potentially affect the project: (i) the lack of information required to develop the activities in Component 1; and (ii) the lack of experience in LAC countries designing and structuring the public-private collaboration needed to implement the proposed recommendations in Component 2. The first risk will be mitigated by means of the public-private dialogue network ([ATN/OC-16470-RG](#)) that the Bank is running as a channel to facilitate preliminary dialogue and greater cooperation among institutions (ministries in charge of the digital agenda, education and health ministries, national regulatory agencies, ministries of finance and national development banks). The second risk will be mitigated through cooperation between the Bank and recognized international institutions and private firms that could provide specific support, knowledge and training during project execution.

#### **VI. Exceptions to Bank policy**

- 6.1 There are no exceptions to the Bank's policies.

#### **VII. Environmental and Social Strategy**

- 7.1 This TC will not finance feasibility or pre-feasibility studies of investment projects nor associated environmental and social studies; therefore, it does not have applicable requirements from the Bank's Environmental and Social Policy Framework (ESPF)".

**Required Annexes:**

[Results Matrix - RG-T4239](#)

[Terms of Reference - RG-T4239](#)

[Procurement Plan - RG-T4239](#)