

## TC Document

### I. Basic Information for TC

▪ Country/Region:	EL SALVADOR
▪ TC Name:	Support Digital Transformation in El Salvador
▪ TC Number:	ES-T1335
▪ Team Leader/Members:	Garcia Zaballos, Antonio (IFD/CMF) Team Leader; Iglesias Rodriguez, Enrique (IFD/CMF) Alternate Team Leader; De Dobrzynski, Esteban (LEG/SGO); Gonzalez Murillo, Lidice Alexa (IFD/CMF); Marquez, Claudia M (IFD/CMF); Molina De Dardon, Gabriela Maria (CID/CES); Porras Herrera, Fanny Eliana (IFD/CMF); Puig Gabarro, Pau (IFD/CMF)
▪ Taxonomy:	Operational Support
▪ Operation Supported by the TC:	ES-L1145.
▪ Date of TC Abstract authorization:	03 May 2021.
▪ Beneficiary:	El Salvador
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	Knowledge Partnership Korea Fund for Technology and Innovation(KPK)
▪ IDB Funding Requested:	US\$500,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	18 months
▪ Required start date:	August, 2021
▪ Types of consultants:	Firms
▪ Prepared by Unit:	IFD/CMF-Connectivity Markets and Finance Division
▪ Unit of Disbursement Responsibility:	IFD/IFD-Institutions for Development Sector
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	Yes
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Productivity and innovation; Institutional capacity and rule of law; Environmental sustainability; Gender equality

### II. Description of the Associated Loan/Guarantee

- 2.1 This Technical Cooperation (TC) will be contributing to the execution and support ES-L1145 through the institutional strengthening associated with the technical aspects linked to the different tenders of the program.

### III. Objectives and Justification of the TC

- 3.1 With the outbreak of COVID-19, the patterns of our entire lives are changing. The virus has transformed the world into a contactless society, where school education and meeting cannot be provided in person and meetings from work are conducted online. Recognizing the growing importance of the infrastructure, Latin-America and the Caribbean Region has prioritized digital infrastructure and decided to invest to connect rural areas with the goal of supporting the access and continuity of public services, specifically those related to education and health.
- 3.2 The current COVID-19 context highlighted the need to improve the connection of both health centers and schools for access and continuity of education and health in El

Salvador, there are 5,400 schools of which 3,500 do not have any type of connectivity, and those who have it, suffer from constant network failures. The general objective of ES-T1335 is to increase the accessibility of their citizens to the public service in health and education.

- 3.3 El Salvador has one of the lowest mobile broadband (BA) penetrations (43%) in Latin America (65%). The main problems of this status are: (i) institutional and regulatory weakness<sup>1</sup>; and (ii) low penetration both in connectivity<sup>2</sup> and insufficient digitization in public services<sup>3</sup>. ES-L1145 will seek to increase access to fixed and mobile broadband for the continuity of public services, through the following two components: (i) Digital infrastructure deployment to connect 2,205 public locations (health centers and schools) and (ii) improve of the digital skills in the locations connected and taking into consideration gender gaps<sup>4</sup>. The results of this loan program will be: (i) increase in the percentage of the population with access to fixed BA in the country; (ii) improvement in digital skills among the country's workforce; and (iii) improvement in the average score of the students of the educational centers that took part in the Learning and Aptitude Tests for High School Graduates (PAES). Additionally, the loan program will have the following long-term results: (iv) increase in the number of connected schools in the country; (v) increase in the number of connected health units of the country; and (vi) population that can access BA in defined coverage areas thanks to the program.
- 3.4 As South Korea emerged from the Korean War in the mid-1950s, they were one of the world's poorest economies. But through decades of government interventions and investments in modern technology, the country has soared to become one of the most developed countries in the world. South Korea's transformation is the result of the government's ambition to speed transformation to the digital economy, and one of the most important factors which realized this was the "Government's vision for ICT."
- 3.5 With the experience of overcoming the economic and pandemic difficulties, there are plenty of aspects that El Salvador can analyze and learn from the policies and institution development of South Korea.<sup>5</sup>
- 3.6 **Objectives.** The general objective of this Technical Cooperation (TC) is to estimate the digital infrastructure gap to improve the connectivity of public institutions (schools and health centers). The specific components the TC will be financing are: (i) National Broadband Plan to improve the connectivity of the country, (ii) Identification of specific policies, regulations, and actions to contribute to the sustainability of the deployment and (iii) Definition of a digital skills program to be incorporated as part of the national connectivity plan. The TC will support the execution of the program ES-L1145 by complementing the feasibility studies already implemented and support in the definition of the international competitive bidding processes.
- 3.7 **Strategic alignment.** The TC is aligned with the priorities identified in the IDB's Update to the Institutional Strategy 2010-2020(AB-3008). Specifically, it is aligned with the following strategic policy objectives which are aligned to the Knowledge

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<sup>1</sup> See indicator ICT governance at digilac El Salvador has a score of 40.5 out of 100.

<sup>2</sup> Data available in [DigiLAC](#). El Salvador ranks 56 out of 65.

<sup>3</sup> See [United Nations e-Government Knowledgebase](#). El Salvador ranks 107th out of 193 countries.

<sup>4</sup> Increments of 10% in Broadband are associated with GDP growth of 3.19% and productivity of 2.62%. <https://publications.iadb.org/publications/english/document/Socioeconomic-Impact-of-Broadband-in-Latin-American-and-Caribbean-Countries.pdf>

<sup>5</sup> See <https://www.un.org/development/desa/publications/publication/2020-united-nations-e-government-survey>

Partnership Korea Fund for Technology and Innovation (KPK): (i) strengthen the capacity of the state; (ii) provide inclusive infrastructure services; (iii) establish smart institutional frameworks; and (iv) improve regional infrastructure. Additionally, this TC is expected to contribute to the following Corporate Results Framework (CRF) indicators: (i) telecommunications Infrastructure, contributions directed to develop extension and quality of telecoms infrastructure, including infrastructure; and (ii) public policy in telecommunications; contributions directed to increase the level playing-field competition and the transparency of the regulatory policy and reforms within the telecom sector. This TC is also aligned with the Country Strategy with El Salvador 2021-2024 (GN-3046-1), by contributing to the strategic objectives of: (i) developing inclusive and sustainable infrastructure services; and (ii) increase digital connectivity. Also, it is aligned with the cross-cutting areas of Gender Equality, CC, and Environmental Sustainability. Finally, the operation is included in the Report on the 2021 Operations Program (GN-3034).

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

- 4.1 The activities that are proposed in this project are divided in to two main components which define the strategic approach of this technical cooperation: Component 1 will include activities required to design a possible network considering the public sites that need connectivity and public sites priorities and the bidding process of ES-L1145.
- 4.2 **Component 1: Connectivity.** The objective of this component is to conduct a demand study and identify and prioritize the 2,205 public sites (mentioned in ES-L1145) to be connected.
- 4.3 **Activity 1.1. Demand forecast:** The scope to be implemented within this analysis will be: (i) study of the supply, identify current supply of telecommunications services in each of the beneficiary countries (households, hospitals, health centers, and public institutions like schools and education centers); and (ii) study of the demand, estimate the current demand for those services and forecast, considered political, economic, sociodemographic and cultural circumstances of the region, especially considering the demands from the health organizations.
- 4.4 **Activity 1.2. Identification of sites:** This activity will suggest the prioritized 2,500 public sites (mentioned in ES-L1145) to be connected. The sites will be proposed in consideration of the budget, technical environment, and the opinions of the government.
- 4.5 **Activity 1.3. Definition of the National Broadband Plan:** This activity will suggest the National Broadband Plan including the policies and specific regulations that are required to contribute to the sustainability of the loan program ES-L1145.
- 4.6 **Component 2: Technical research.** The objective of this component is to identify and research for appropriate technology, efficient designing of a backbone network and technical assistance in bidding process.
- 4.7 **Activity 2.1. Best practice of Korea:** This activity will support the case study of Korean experience on connecting rural areas. By reviewing alternative technologies like wireless or alternative technologies to offer high capacity and long-distance communication, the activity will review possible technologies and equipment to be used and potentially considered within the bidding processes of the program ES-L1145.

- 4.8 **Activity 2.2. Current technological status:** This technical analysis includes, among others: (i) assessment of the existing available infrastructure; (ii) definition of technical specifications and quality considerations to be included in the bidding processes to connect the public institutions and households included. (i) study status of El Salvador broadband network (formation, design, equipment's).
- 4.9 **Activity 2.3. Planning of network:** This activity will support the designing and proposing of systematic and efficient plan backbone network by suggesting alternatives for the implementation of the network configuration method by comparing the characteristics of public sites and the adoptable technologies.
- 4.10 **Activity 2.4. Preparation of Bidding process.** This activity will finance the preparation of the technical specification for ES-L1145 bidding process.
- 4.11 **Activity 2.5. Definition of the digital skills strategy.** This activity will finance the preparation of the strategy to support the implementation of component 2 from the loan program ES-L1145.
- 4.12 **Expected results.** This project will provide technical assistance and investment strategy for laying optical fiber rings to connect public institutions and households in El Salvador and suggest ICT application models that can support respective governments fighting COVID-19. Specifically, the expected results of the project are: (i) study existing network, identify technical specification, support design the expanding network by fully utilizing the existing infrastructure for respective countries (ii) study case of South Korea to learn and customize the best practice on wireless connection of rural areas, (iii) national broadband plan, (iv) digital skills strategy and (v) inputs to the international competitive bidding process.
- 4.13 The total cost of this TC will be US\$500,000.00 which will be financed by the Knowledge Partnership Korea Fund for Technology and Innovation (KPK).

**Indicative Budget  
(In US\$)**

Component	Description	IDB/Fund Funding	Total Funding
<b>Component 1:</b>  <b>Connectivity</b>	<ul style="list-style-type: none"> <li>• Demand study</li> <li>• Identify and prioritize the 2,205 public sites (mentioned in ES-L1145) to be connected National Broadband Plan</li> </ul>	<b>145,000.00</b>	<b>145,000.00</b>
<b>Component 2:</b>  <b>Technical Research</b>	<ul style="list-style-type: none"> <li>• Design and propose systematic and efficient plan backbone network</li> <li>• Study south Korea technologies connecting rural areas</li> <li>• Identify technical specification,</li> <li>• Preparation of bidding process</li> <li>• Digital Skills Program</li> </ul>	<b>355,000.00</b>	<b>355,000.00</b>
<b>TOTAL</b>		<b>500,000.00</b>	<b>500,000.00</b>

## **V. Executing agency and execution structure**

- 5.1 The executing agency will be the Bank through Connectivity, Markets and Finance (IFD/CMF). The justification for this execution structure is: (i) the Bank has the technical experience to coordinate and executive the different activities included in the technical cooperation; (ii) the technical cooperation will need extensive partnership with international organizations, academic institutions, and private firms; and (iii) the beneficiaries requested the Bank to be the executor given the technical difficulties related to the project. Supervision and coordination of the consultant's work will be the responsibility of Antonio García Zaballos (IFD/CMF), Team Leader, [antonioagar@iadb.org](mailto:antonioagar@iadb.org). The contract of a consultant will comply with the Policies for the Selection and Contracting of Consultants Financed by the IDB (GN-2350-9).
- 5.2 **Procurement.** The activities to be executed under this operation have been included in the Procurement Plan (Annex IV) and will be executed in accordance with the Bank's established procurement methods, namely: (a) Hiring of individual consultants, as established in the regulations AM-650; (b) Hiring of consulting firms for services of an intellectual nature according to GN-2765-4 and its associated operating guides (OP-1155-4) and (c) Hiring of logistics services and other services other than consulting, according to the policy GN-2303-28.

## **VI. Major issues**

- 6.1 This project entails two risks that could potentially affect the project (i) the lack of coordination necessary across the different institutions involved in the digitalization (Secretary of Innovation, Ministry of Health, Minister of Education); and (ii) the lack of expertise to deal with the large business like the deployment of infrastructure. The first risk will be mitigated by coordinating with the executing agency of the loan program ES-L1145 and by keeping the secretary of innovation from president office informed to make sure the interinstitutional coordination takes place. The second risk will be reduced the cooperation between the Bank, and renowned international institutions which could provide specific support, knowledge, and training throughout the execution of the project, for instance Korea Institutions.

## **VII. Exceptions to Bank policy**

- 7.1 This subheading should identify and address any exceptions to Bank policy.

## **VIII. Environmental and Social Strategy**

- 8.1 This operation is classified as a Category "C" according the Environmental and Safeguards Compliance Policy (OP-703) (See: [Safeguard Policy Filter Report](#) and [Safeguard Screening Form](#)) since there is no investment or loan associated with this operation

[Request from the Client - ES-T1335](#)

[Results Matrix - ES-T1335](#)

[Terms of Reference - ES-T1335](#)

[Procurement Plan - ES-T1335](#)