

TECHNICAL COOPERATION ABSTRACT (TC-ABSTRACT)

REGIONAL

I. BASIC INFORMATION

Country: Caribbean Region: Barbados, Belize, Dominican Republic, Jamaica, Suriname, Guyana, Haiti, and Trinidad and Tobago

TC Name: Broadband Infrastructure Inventory and Public Awareness in the Caribbean

TC Number: RG-T2212

Team Leader/Members: **IDB:** Antonio García Zaballos (Team Leader, IFD/CTI); Kevin McTigue (LEG/SGO); Shirley Maud Gayle (FMP/CTT); Luis César Acosta (FMP/CTT); Rubén López-Rivas (Consultant); Claudia Salazar (Consultant); Jiyoun Son (IFD/CTI); and Cecilia Bernedo (IFD/CTI).
CANTO: Regenier Fräser; Teresa Wankin; Jimmy Rodrigues; Tricia Balthazar; Lianne Dieffenthaler.

TC Taxonomy: Knowledge generation

Reference to request: [IDBDocs#37051658](#)

Date of TC Abstract: August 15, 2012

Donors providing funding: TBD

Beneficiary Barbados, Belize, Dominican Republic, Jamaica, Suriname, Guyana, Haiti and Trinidad and Tobago

Executing Agency and contact name: CANTO: Regenie Fraser: - Rfraser@Canto.Org / Teresa Wankin: - Twankin@Canto.Org

Financing plan: **IDB:** US\$ 840,000
Local: US\$ 240,000
Total: US\$1,080,000

Execution period: 16 months **Disbursement period:** 20 months

Required start date: November 9, 2012

Types of consultants: Individual Consultants, Consulting firm

Prepared by Unit: Competitiveness and Innovation Division (IFD/CTI)

Unit of Disbursement Responsibility: IFD/CTI

TC Included in Country Strategy: N/A **TC included in CPD:** N/A

GCI-9

Sector Priority: The current Sector Strategy: “Institutions for Growth and Social Welfare” identifies *improving innovation and productivity* as a major area where the Bank can help the region overcome the challenges that hinder growth and social welfare. To this end, the IDB will work towards strengthening institutions, and has specifically recognized the need to improve policies and governmental action in the ICT sector (¶5.21 of the referred to Sector Strategy). Consistent with the Strategy, the Bank has been working in the design and implementation of a Broadband Platform to accelerate the penetration rate and usage of broadband services in the Region.

II. OBJECTIVES AND JUSTIFICATION OF THE TC

- 2.1 There is ample literature, experiences and studies that provide evidence of the critical role that broadband Internet plays in economic and social development. It is estimated that a 10% rise in market penetration of broadband services in the LAC region is correlated to average increases in GDP of 3.2% and a boost in productivity of 2.6%.¹ Moreover, in addition to widespread access to broadband, an effective use of services, information and applications by the population is fundamental to harness the potential benefits of broadband, thus digital literacy and awareness of the importance of ICTs are also key requirements to ensure a country's full participation in the new digital world.
- 2.2 Broadband Internet penetration can be measured as the sum of fixed and mobile broadband subscriptions in a country.² According to statistics published by the International Telecommunication Union (ITU)—ICT World Indicators, 2011—the penetration rate of fixed broadband services in the Caribbean Region ranges from less than 2% in Guyana and 11% in Trinidad and Tobago to 21% in Barbados. In terms of mobile broadband, although penetration is still low in the Caribbean and in most developing countries—with a penetration of 8% in developing countries versus 51.3% in developed countries—the fact that the cellular mobile penetration rate is above 60% in all participating countries provides great potential to accelerate the penetration rate and usage of mobile broadband services in the Caribbean Region.
- 2.3 Among the main barriers to broadband penetration in the Caribbean are: (i) lack of awareness and understanding among some public officials, business people and the public at large about how ICTs can contribute to generate economic growth and stimulate innovation in sectors such as health, education and trade; (ii) insufficient institutional capacity to design, implement and monitor specific policies that may foster the use and adoption of ICT at all levels of society; (iii) inadequate regulatory frameworks that have not kept pace with major trends in the industry, particularly the convergence of services, network platforms and applications that have come to characterize the consumption pattern of consumers regionally and worldwide³; (iv) lack of understanding of the implications that variances in socio-demographic and economic conditions between urban and rural areas have in broadband availability and usage, as well as an under-appreciation of how current gaps suppress economic and social development in under-served areas; (v) scarcity of data to allow governments to track and measure the economic and social impact of ICTs in each country, and (vi) absence of geographic information on broadband penetration and services in the region.

¹ Garcia-Zaballos, A / Lopez-Rivas, R: Governmental control on socio-economic impact of broadband in LAC countries, working paper.

² Total fixed (wired) broadband Internet subscriptions include technologies such as cable modem, DSL, fibre-to-the-home/building and other fixed (wired) broadband subscriptions. Total wireless broadband subscriptions include the sum of satellite, terrestrial fixed wireless and terrestrial mobile wireless subscriptions. Definitions of World Telecommunication/ICT Indicators, International Telecommunications Union (ITU), March 2010.

³ Examples of convergence in the telecommunications sector include mobile phones with video, radio and Internet connection, and radio over TV platforms.

- 2.4 In light of the many barriers observed in the region, and as a result of the exchange of information and discussions held at the Caribbean Broadband Forum organized jointly by Caribbean Association of National Telecommunications Organizations (CANTO) and the IDB on November 7, 2011, participating Ministers from the Region expressed their interest in addressing these challenges in a coordinated manner. To this end, the Ministers requested the preparation of a study to identify an inventory of the existing broadband infrastructure in the participating countries, and practical guidelines for the ubiquitous implementation of broadband access technologies in an efficient manner that is consistent with globally adopted standards and international best practices.
- 2.5 Although there are many international best practices to consider, the design of broadband strategies is perhaps one of the most recurrent tools used by governments around the world. A review of current broadband strategies shows that governments consistently follow a holistic approach that addresses both demand and supply-side actions, and seek to obtain three interrelated policy goals:
- a. **ACCESS:** ensuring consistent waves of investment in infrastructure build-out to provide ever increasing broadband capacity and access to all citizens, businesses and community anchor institutions. Incentives may be required depending on socio-demographic characteristics,
 - b. **ADOPTION:** ensuring universal access to, adoption and penetration of broadband services—both mobile and fixed—by all citizens, and businesses.
 - c. **USAGE:** ensuring that all communities—particularly community anchor institutions like schools, hospitals, SMEs, libraries and governments are increasingly using broadband technology to pursue economic opportunities, provide government services, and leverage social services such as educational and e-health resources.
- 2.6 **Objectives:** The objective of this Technical Cooperation (TC) of regional public good is to support the Caribbean Region as it evolves towards universality in broadband access and service, regardless of the location (ubiquity) or the social strata (equity).
- 2.7 The elaboration of regional knowledge products and tools, such as the development of broadband infrastructure maps, that overlap with other existing infrastructure (telecommunications, gas, water, electricity), coupled with the identification of the major obstacles in the regulatory framework in the Region will inform the design of a regional broadband strategy. These efforts will be accompanied by awareness programs among the different stakeholders (citizens, small-medium enterprises and public administrations) on the importance of ICTs. Overall, the implementation of the strategy and capacity building programs will contribute to accelerating the penetration and usage of broadband services in the Region, as a key enabler for productivity and social inclusion.

III. DESCRIPTION OF ACTIVITIES

- 3.1 This operation will have four main components: (i) broadband diagnostic and infrastructure maps; (ii) review of legal and regulatory frameworks and current sector trends; (iii) ICT awareness program and capacity building; and (iv) regional broadband strategy.
- 3.2 **Component 1 - Broadband diagnostic and infrastructure maps.** The objective of this component is to improve data availability and understanding of the current state of broadband infrastructure in the region, to be included in infrastructure maps. In addition, country-specific socio-demographic variables will be identified, such as population distribution by age and income levels, and market variables such as the number of operators and prices, which have an effect on broadband deployment. The knowledge and tools developed under this component will facilitate the design of public policies, and allow governments to identify the level of intervention necessary to achieve universality in access and broadband services, and when and where public-private partnerships are needed.
- 3.3 **Component 2 - Review of legal and regulatory frameworks and current sector trends.** The objective of this component is to review the existing regulatory framework in terms of access, interconnection and tariffs. Proposed revisions to the regulation will seek to increase the level playing field for sector competition in the Region. In addition, any proposed amendments to the regulatory framework should be made considering the major challenges faced by the Region in light of current trends in the telecommunications sector, such as: (i) convergence of services, applications and devices; and (ii) the need to deploy new infrastructure to address the growing demand for speed (quality) of broadband services and applications.
- 3.4 The proposal of specific amendments and drafting of new legislation will support the Region in moving towards a harmonized regulatory framework in key aspects related to access, interconnection and affordability in prices. Additionally, an up-to-date regulation that responds to the changes observed in the sector will support governments' efforts to leverage private sector investment to accelerate broadband infrastructure deployment in the Caribbean.
- 3.5 **Component 3. ICT awareness and capacity building program.** The objective of this component is to create awareness and build capacity of a diverse group of audiences, including individuals, business people and public officials, on how ICTs in general, and broadband services and applications in particular, may contribute to economic growth and social inclusion in the Region. Specific sectorial documents will be developed, highlighting the benefits of using ICTs in health, education, trade/SMEs, government and finance. The program will ultimately contribute to increasing the use of and the demand for broadband services in the Caribbean.
- 3.6 **Component 4. Regional broadband strategy.** The objective of this component is to provide practical guidelines for governments in the region to accelerate the

penetration rate and usage of broadband services among the different stakeholders. Based on the results and findings of previous components, a regional strategy with specific actions from the supply (regulatory framework and infrastructure requirements) and the demand sides (services and applications and capacity building) will be designed.

Table 3.1: Indicative Results Matrix

Suggested Indicator (outcome)	Base Line	Target at the end of the TC
Broadband diagnostic and infrastructure maps	0	Available infrastructure is identified through regional broadband maps
Review of legal and regulatory frameworks and current sector trends	0	Revisions to the legal and regulatory frameworks are proposed, based on current sector trends
ICT awareness and capacity building program	0	Awareness is raised and capacity is built among a diverse group of audiences, including individuals, business people and public officials, on how ICTs in general, and broadband services and applications in particular, may contribute to economic growth and social inclusion in the Region.
Regional broadband strategy	0	A regional broadband strategy based on country-specific data is developed.

IV. BUDGET

Table 4.1: Indicative budget

Activities /Components	Description	IDB	Counter-Part	Total
Project launch	Launch meeting/workshop with stakeholders from participating countries	42,000.00	12,000.00	54,000.00
Diagnostic of available infrastructure	Consultancy: (telecommunications, water, gas, electricity) & Development of the Infrastructure maps	159,600.00	45,600.00	205,200.00
Development of the socio-demographic and economic analysis and identification of areas subject to public-private partnerships	Consultancy: to identify socio-demographic variables, conduct an economic analysis and determine areas subject to partnerships	126,000.00	36,000.00	162,000.00
Workshop to present results	Event to present results to stakeholders from participating countries	42,000.00	12,000.00	54,000.00
Review of current sector trends and identification of corresponding institutional strengthening needs	Review	84,000.00	24,000.00	108,000.00
Review of the Reg. Framework with focus on access, interconnection and tariffs	Review	151,200.00	43,200.00	194,400.00
Workshop to present results	Event to present results to stakeholders	42,000.00	12,000.00	54,000.00
Development of documents on ICT in Health, Education, Trade/SMEs, Government and Finance to create awareness among citizens, SMEs and Public Administration	Awareness programme	100,800.00	28,800.00	129,600.00
Executing Agency	Cost assigned to Executing Agency	67,200.00	19,200.00	86,400.00
Contingencies	Sundry expenses	25,200.00	7,200.00	32,400.00
Total		840,000.00	240,000.00	1,080,000.00

V. EXECUTING AGENCY AND EXECUTION STRUCTURE

- 5.1 A Project Management Team (PMT) will be constituted by CANTO (executing agency) comprising of a Steering Committee (Secretary General, representatives of the CANTO Board, operators, regulators, suppliers and governments); a Project Manager; an Accounting Officer; and a Country Liaison from each participating country. The PMT will be the engine of the process providing strategic advice and direction, stakeholder liaison, implementation capacity and administrative support. The project team will work in close collaboration with IDB representatives, governments, regulatory agencies and other stakeholders in participating countries.
- 5.2 Stakeholders consultations initiated during this project will be maintained via the Annual CANTO ICT Ministerial Roundtable meetings as well as during the Caribbean Broadband Forum. These forums will enable participating and beneficiary countries to provide updates on their activities, identifying challenges and opportunities for addressing and enhancing broadband sustainability in the Region.

VI. PROJECT RISKS AND ISSUES

- 6.1 **Low buy-in from stakeholders.** The value of the knowledge products, recommendations and proposed revisions to the legislation resulting from this TC depends on the actual use given to them by each government. In this regard, potential low buy-in for the project from key government stakeholders is a risk for this type of project. This risk is mitigated by the fact that the eight participating countries have already expressed in writing their keen interest and in kind commitment to the project. In addition, the project was discussed and interest was reiterated at the recently concluded Ministerial Roundtable at CANTO'S Annual Conference and Trade exhibition.
- 6.2 **Low interest from the private sector.** The sustainability of the project relies not only on political buy-in, but on interest of the private sector to pursue public-private partnerships as required. To this end, CANTO and the Project Management Team will leverage its strong relationships with private sector members to develop public-private partnerships deriving from the recommendations of this project. These public-private-partnerships are expected to continue after the project implementation phase. CANTO will also use its various forums to raise the visibility of the project and to encourage full participation by members and key partners.

VII. EXCEPTIONS TO BANK POLICY

- 7.1 No exceptions to Bank policy are foreseen.

VIII. ENVIRONMENTAL AND SOCIAL STRATEGY

- 8.1 Due to the nature of this TC which involves a research study, there are no expected environmental and social risks associated with it. The operation was classified as Category "C", according to the Bank's classification toolkit (see link: [IDBDocs#37053029](#)).