

## Technical Cooperation

### I. Basic Information

• Country/Region:	REGIONAL
• TC Name:	Innovation, Firm Performance, and Gender Issues in Enterprises of the Caribbean
• TC Number:	RG-T3163
• Team Leader/Members:	Claudia Stevenson (CTV/IFD) –Team Leader Musheer Kamau (CCB/CCB) – Alt Team Leader Monica Salazar (CTV/ICCO) – Team, Member Grant, Kayla Sharee (CTV/IFD - Operational Analyst Grazzi, Matteo (CTV/IFD) Pereira, Stefano (CTV/IFD - Operational Analyst Hennig, Betina Tirelli (LEG/LEG)- Attorney Pilgrim, Valarie –(CTV/IFD) Team Member Acevedo, Maria Cecilia (DSP/DSO) Team Member Figal, Lucas (DSP/DVF), Team Member Perfit, Janine-(ICS/IFD) Team Member, Luana Marques (GD/SCL); Blanca Torrico (IFD/CTI) Project Assistant, Yohana Gonzales (IFD/CTI) Project Assistant
• Indicate if: Operational Support, Client Support, or Research & Dissemination:	Research and Dissemination
• Date of TC Abstract Authorization:	January 10, 2018
• Beneficiary:	The Bahamas, Barbados, Belize, Guyana, Jamaica, Suriname, Trinidad & Tobago, St. Lucia, St. Vincent and the Grenadines, Dominica, Antigua & Barbuda, Grenada, St. Kitts.
• Executing Agency and contact name:	Inter-American Development Bank (IDB)
• Donors providing funding:	IDB through the Compete Caribbean Partnership Facility (CCPF)
• IDB Funding Requested:	\$700,000.00
• Local counterpart funding, if any:	N/A
• Disbursement period:	24 months
• Required start date:	May 15, 2018
• Types of consultants:	Firm Individual Consultants
• Prepared by Unit:	Competitiveness & Innovation Division Country Caribbean Group
• Unit of Disbursement Responsibility:	INSTITUTIONS FOR DEVELOPMENT
• Included in Country Strategy (y/n):	No
• TC included in CPD (y / n):	No
• Alignment to the Update to the Institutional Strategy 2010-2020:	Productivity and innovation

### II. Objective and Justification

- 2.1 The economies of the Caribbean are small, open economies that depend mainly on tourism or on the exploitation of natural resources, and that show persistent declining growth rates over time. In most of the countries, the top three exports account for 70% of total exports and merchandise exports have typically been unsophisticated, ubiquitous low value-added commodities like bauxite, oil and sugar<sup>1</sup>. In the long run, improvements in total factor productivity matter for growth in income per capita (World Bank, 2005; Thacker, Acevedo, and Perrelli 2012). While the Caribbean has enjoyed relatively modest levels of investment over the last three decades, investment and savings alone are not sufficient to improve productivity. Findings exploring the determinants of productivity at the firm level using micro-level data on

<sup>1</sup> International Monetary Fund (IMF). 2014. World Economic Outlook database.

firms in the Caribbean show the significance of innovation on improving productivity (Dohnert, Crespi, and Maffioli 2017).

- 2.2 Firm-level data has allowed the measurement of total factor productivity at the country level and has supported analyses exploring firm characteristics (i.e. size, sector, ownership structure, composition of inputs, structure of financing, structure of labor force, basic performance indicators, and management perception on key business environment). Micro-level surveys provide useful information to firms that are trying to constantly improve their performance, support informed decision making for policy makers and improve the targeting strategies of banks, venture capital funds, and Development Finance Institutions (DFIs) aimed at supporting Private Sector Development (PSD). For example, the firm level data has been used as part of the diagnostics that have served as inputs for the Country strategies of Barbados, The Bahamas, Guyana, Jamaica and Trinidad and Tobago among others. The firm level data has also been used for the preparation of loans in the sector, such as SU-L1043, Business Climate and Innovation and GY-L1059 Improving the National Quality Infrastructure. These details will be included in the project documents<sup>2</sup>. Each successive round of firm-level surveys strengthens the information available to understand the firm's role in the economy and the determinants, implications, and solutions to tackle the productivity gap in the region.
- 2.3 The first micro-level dataset that extensively covers Caribbean firms was a result of a partnership between the IDB, through the first phase of the Compete Caribbean Program, and the World Bank<sup>3</sup> (RG-X1074) to fund the 2010 Latin American and Caribbean Enterprise Survey (LACES). LACES included 14 CARIFORUM countries in the Enterprise Surveys methodology to gather internationally comparable data on business structure, performance, and aspects of the business environment for the region. This data collection was followed by a second survey, FINGEN, which was focused only on women-led firms in three countries (Barbados, Jamaica, Trinidad and Tobago), and collected information on access to finance among women-led firms. Building on the dataset generated from LACES and FINGEN (Finance and Gender Survey), Compete Caribbean phase I (RG-X1044) financed a second round of firm-level surveys in 2013 called Productivity, Technology, and Innovation (PROTEqIN). This survey included additional modules on gender composition of ownership and management, innovation efforts, skills requirements and mismatches, security efforts, access to public programs, and utilization of support services. Furthermore, it covered nearly 1900 firms across 13 Caribbean countries, and has an overlap of 96% of the sample frame of LACES, thus creating a panel dataset of firms interviewed under LACES that has been the basis for providing insights to the functioning of the private sector.
- 2.4 These three sets of firm-level data have been used for the design of PSD policies, productivity enhancing programs and innovation support projects, as well as for targeted research. Nevertheless, the data collection efforts are expensive undertakings that small and vulnerable Caribbean countries find difficult to fund and execute on their own, in addition to having weak administrative institutions. Thus, as part of the activities of the Compete Caribbean Partnership Facility (CCPF, or

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<sup>2</sup> Additionally, 5 monographs have been produced by the Bank over the last 3 years, each of which extensively use the dataset -1 by CTI (Dohnert et al. , 2016) and 4 by CCB ( Ruprah & Sierra, 2016; Ruprah & Sutton, 2017; Khadan, 2017; Osorio et al., 2017). These publications delve in to thematic areas related to stimulating private sector development in the Caribbean in great detail. These include but are not limited to productivity, innovation, gender, crime, human capital, competition, and foreign direct investment. External publications have also been developed during the same time period by research institutions in the region. One such institution is the University of the West Indies' Sir Arthur Lewis Institute of Social and Economic Studies.

<sup>3</sup> A meeting was held with members of the World Bank's Enterprise Analysis Unit. Lines of communication will remain open for identifying opportunities to collaborate.

GN-2851) approved in 2016, a third round of Innovation, Firm Performance and Gender business surveys (IFPG) is envisioned, focusing on the innovative behavior of Caribbean businesses and aligned to the innovation data collection exercises routinely carried out by statistical offices in Latin America, as well as the recent developments and methodological recommendations from the OECD Oslo Manual thus contributing to cross-country comparability.

- 2.5 The objective of this Technical Cooperation (TC) is to gather internationally comparable firm-level data on innovation, technology, firm performance, finance, gender and business management that will supply evidence-based data and information to improve private sector development policies and growth-driven strategies in the Caribbean region. The envisioned activities will (i) create a new sample frame, review the data collection methodology, and design a new survey instrument; (ii) collect data on business performance, innovative activities, use of technology, management practices, gender and business climate; and (iii) provide a complete data set for each of the 13 countries, with respective reports.
- 2.7 Coordination with other activities – The IFPG survey will contribute to the wider collection of datasets that document private sector development in the Caribbean region, including the LACES, FINGEN and PROTEqIN datasets generated under RG-X1074 and RG-X1044. At the regional level, the survey will contribute to the progress of the Caribbean Community (CARICOM) to improve statistical production related to business information at both the national and regional levels. As such, project activities described in the current TC will be coordinated closely with CARICOM and the Project for the Regional Advancement of Statistics in the Caribbean (PRASC). PRASC is an initiative implemented by Statistics Canada whose direct beneficiaries are the National Statistical Offices, National Statistical Systems and the Regional Statistical System of the Caribbean region. One of the four components of the PRASC focuses on Business Survey Infrastructure, by improving the methodology of business surveys for better economic statistics. Activities are carried out in three phases: knowledge exchange, development and testing, and implementation of the business survey infrastructure at the national level. Lessons learned at the national level are used to establish a foundation for regional guidelines for the development and maintenance of statistical business registers.
- 2.8 In addition, the Competitiveness, Innovation and Technology Division of the IDB has been building a dataset of Latin American Innovation Surveys (LAIS), which is a harmonized and anonymized dataset of cross sectional data at the firm level, covering 10 countries over the period 2004-2016, and which includes around 700 variables across 12 themes to describe innovation in Latin American firms (not covering the Caribbean). The methodology for harmonization includes the construction of variables (quantitative and qualitative) and the selection of variables according to two criteria: (i) optimize coverage at the survey level: Include variables common to all surveys; (ii) optimize coverage at the level of the questionnaire: Include variables that are common to many of the surveys. In the future, and in order to allow the Caribbean to benchmark itself across a wider set of countries, it is envisioned that innovation data from Caribbean countries will be included in LAIS. The homologation efforts of the different databases will be aligned with the current LAIS initiative.
- 2.9 CDB has also been working to support National Statistics Offices NSOs and has expressed interest to collaborate by providing statistical expertise to the project.
- 2.10 **Strategic Alignment.** This TC is consistent with the Update to the Institutional Strategy (UIS) 2010-2020 (AB-3008) as it is strategically aligned with the development challenges of: (i) productivity and innovation; (ii) economic integration;

and (iii) the cross cutting of Gender Equality and Diversity, while addressing the special needs of small and vulnerable countries and fostering development through the private sector. The program is aligned with the priorities defined in the Innovation, Science and Technology Sector Framework Document (GN-2791-3). The project is also aligned with the priorities of the “Proposal for the Establishment of the Compete Caribbean Partnership Facility” (GN-2851). In addition, this TC is aligned with the country strategies of, The Bahamas, Belize, Guyana, Jamaica, Trinidad and Tobago and Surinam that include the pillar of private sector development and innovation, and this TC will support informed decision making with firm level data. The Barbados strategy (in preparation) has identified the topic as well.

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

- 3.1 **Component 1: Implementation of the IFPG 2018 Survey (US\$600,000.00).** This component (to be implemented as a firm consultancy), will finance a consultancy to: (i) define a new sample frame; (ii) develop a new survey instrument including the development of relevant, comparable indicators; (iii) collect data on business performance, innovative activities, use of technology, gender, business management practices and business climate; (iv) provide statistically significant business environment indicators that are comparable among countries. This component will design a sample frame that is statistically representative of the major economic sectors in each country, design a new survey instrument, and collect data from a statistically representative sample of firms across the Caribbean region. The consultancy will define a methodological approach that considers the sample framework, the optimal and most relevant number of questions, the replication of questions from other initiatives in the region and outside the region, and the data collection method; and will collect data from a statistically representative sample of enterprises from among the 13 included countries (Antigua and Barbuda, The Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Jamaica, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Trinidad and Tobago, and Suriname), including a longitudinal panel of firms that participated in the previous round of surveys in 2013 and in 2011, on: business performance, innovation activities and outcomes, use of technology, management practices, gender and business environment, as well as basic firm-level data. The survey methodology will use traditional methods to build a frame population (including business registries and information on tax revenues where applicable) and incorporate recent methodological advances on data mining and analytics (open online data) and Big Data tools. If applicable, the consultant shall also introduce new technologies for data collection that promote survey participation.
- 3.2 **Component 2: Dissemination of Results (US\$100,000.00).** This component will include advocacy actions aimed at increasing awareness and survey responses during the data collection process. This component will finance: (i) The deployment of an awareness strategy to be carried out in coordination with the National Statistical Office (NSO), existing business registries, and other stakeholders seeking to increase the visibility of the NSO and their capacity to collect business-level data (awareness materials will be designed in a way that they can be generalized and used by the NSOs); (ii) Two capacity building workshops to share data collection tools such as response tracker, collection techniques, follow-up techniques and, anonymization among others; (iii) A data visualization strategy including a visualization application for easy visualization and data management, a strategy for sharing and communicating. anonymized data set, along with the main findings, to stakeholders across the region through online mediums such as newsletters, targeted emails, and social media, with to the use of modern visualization methods,

including geographical and spatial visualization and digital tools and the showcasing of the data in the open data portal of the IDB, as well as the other avenues for data sharing (Compete Caribbean, LACES, World Bank, etc.); (iv) a call for proposals for research on the collected data to foster knowledge generation through research; and (v) policy briefs aimed at giving user friendly information for decision makers in each of the countries regarding the status of firms in their respective countries.

#### IV. Budget

Indicative Budget (in US\$)

Activity/Component	IDB	Counterpart Funding	Total Funding
<b>Component 1:</b> Implementation of the IFPG 2018 Survey	\$600,000.00	\$0.00	\$600,000.00
<b>Component 2:</b> Dissemination of Results	\$100,000.00	\$0.00	\$100,000.00
			<b>\$700,000</b>

#### V. Executing agency and execution structure

- 5.1. The execution of this TC will be carried out by the Bank through the IFD/CTI division in coordination with the Caribbean Department and the Facility Coordination Unit (FCU) of the CCPF based in Barbados.
- 5.2. The execution and disbursement period will be 24 months and the UDR will be IFD. The activities to be executed are included in the Procurement Plan (Annex III) and will be contracted in accordance with Bank policies as follows: (a) AM-650 for Individual consultants; (b) GN-2765-1 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature and; (c) GN-2303-20 for logistics and other related services. In accordance with a Financial Agency Agreement signed between the IDB and the Caribbean Development Bank (CDB), the CDB will act as the Financial Agent for the purposes of administering the CCPF grant resources that will finance the implementation of individual projects in the Organization of Eastern Caribbean States (OECS).
- 5.3. The Compete Caribbean Partnership Facility (CCPF), approved under GN-2851, was jointly designed with donors to be a Bank-executed Program. Given the expertise and experience already in place by the execution of the first phase of the CCPF's FCU will build on the unit already established in COF Barbados. Additionally, the CTI team has strong experience in design and implementation of national and regional innovation survey instruments. The Bank has demonstrated its ability to coordinate and motivate action across diverse stakeholders at both the national and regional levels.

#### VI. Risks and Sustainability

- 6.1. There is the risk of insufficient response rates as respondents increasingly become reluctant to allocate time to data collectors. To increase the buy-in of respondents, an awareness strategy will communicate the key benefits to firms, such as competitiveness intelligence data and the ability to benchmark firm performance. In addition, will carry out workshops with stakeholders, including NSOs to share lessons learned and best practices to obtain the optimum level of response. In addition, the team will explore the use of new technological advances for Data Mining and facilitate coordination with other stakeholders such as Business Registries and tax revenue officers to facilitate the sample frame and data collection exercise. The sustainability risk, regarding the continuity of the activities over time,

will be mitigate by working closely with the NSO by sharing experiences, best practices and providing institutional strengthening.

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

- 7.1. Given the nature of the program, there are no associated environmental or social risks. Based on the Environment and Safeguards Compliance Policy (OP-703) this operation is classified as “C” ([See Safeguards Policy Filter Report](#) and the [Screening Form](#)).

### **Required Annexes:**

- [Results Matrix](#)
- [Terms of Reference](#)
- [Procurement Plan](#)

INNOVATION, FIRM PERFORMANCE AND GENDER ISSUES IN ENTERPRISES IN THE CARIBBEAN

RG-T3163

CERTIFICATION

I hereby certify that this operation was approved for financing under the **Compete Caribbean Partnership Facility (CCP)** through a communication dated January 10, 2018 and signed by Goro Mutsuura (ORP/GCM). Also, I certify that resources from said fund are available for up to **US\$700,000** in order to finance the activities described and budgeted in this document. This certification reserves resource for the referenced project for a period of four (4) calendar months counted from the date of eligibility from the funding source. If the project is not approved by the IDB within that period, the reserve of resources will be cancelled, except in the case a new certification is granted. The commitment and disbursement of these resources shall be made only by the Bank in US dollars. The same currency shall be used to stipulate the remuneration and payments to consultants, except in the case of local consultants working in their own borrowing member country who shall have their remuneration defined and paid in the currency of such country. No resources of the Fund shall be made available to cover amounts greater than the amount certified herein above for the implementation of this operation. Amounts greater than the certified amount may arise from commitments on contracts denominated in a currency other than the Fund currency, resulting in currency exchange rate differences, represent a risk that will not be absorbed by the Fund.

Certified by:

_____ Approved Sonia M. Rivera Chief Grants and Co-Financing Management Unit ORP/GCM	_____ 4/25/2018 Date
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Approved by:

_____ Approved Gonzalo Rivas Division Chief Competitiveness and Innovation Division IFD/CTI	_____ 4/25/2018 Date
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