

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**PANAMA**

**INCREASING PRODUCTIVITY THROUGH STRENGTHENING SKILLS**

**(PN-T1173)**

**TC DOCUMENT**

This document was prepared by the Project team consisting of: Waldo Tapia (LMK/CPN), Team Leader; Galileo Solis (CTI/CPN); Laura Ripani (SCL/LMK); Alvaro Sanmartín Baez (LEG/SGO); Ethel Muhlstein (SCL/LMK), and Tania Gaona (SCL/LMK).

Under the Access to Information Policy, this document is subject to Public Disclosure.

**INCREASING PRODUCTIVITY THROUGH STRENGTHENING SKILLS**

**PN-T1173**

**CERTIFICATION**

I hereby certify that this operation was approved for financing under the **Japan Special Fund (JSF)**, through a communication dated April 26, 2018 and signed by Michiko Tamashiro. Also, I certify that resources from said fund are available for up to **US\$500,000** in order to finance the activities described and budgeted in this document. This certification reserves resource for the referenced project for a period of six (6) 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, representing a risk that will not be absorbed by the Fund.

Certified by:

\_\_\_\_\_  
Sonia M. Rivera  
Chief  
Grants and Co-Financing Management Unit  
ORP/GCM

\_\_\_\_\_  
Date

Approved by:

\_\_\_\_\_  
Carmen Pages-Serra  
Jefe de División  
División de Mercados Laborales  
SCL/LMK

\_\_\_\_\_  
Date

## TC Document

### I. Basic Information for TC

▪ Country/Region:	Panama / CID
▪ TC Name:	Increasing productivity through strengthening skills
▪ TC Number:	PN-T1173
▪ Team Leader/Members:	Waldo Tapia (LMK/CPN), Team Leader; Galileo Solis (CTI/CPN); Laura Ripani (SCL/LMK); Alvaro Sanmartín Baez (LEG/SGO); Ethel Muhlstein (SCL/LMK); and Tania Gaona (SCL/LMK).
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination	Operational Support (OS)
▪ If Operational Support TC, give number and name of Operation Supported by the TC:	PN-L1153
▪ Date of TC Abstract authorization:	April 26, 2018
▪ Beneficiary (countries or entities which are the recipient of the technical assistance):	The Republic of Panama, through the Competitiveness and Logistics Secretariat of the Presidency
▪ Executing Agency and contact name:	Inter-American Development Bank, through the Social Sector, Labor Markets Division (SCL/LMK)
▪ Donors providing funding (amount and Fund's name):	US\$500,000 Grants Fund Established by the Government of Japan Special Fund (JSF)
▪ IDB Funding Requested:	US\$ 500,000
▪ Local counterpart funding, if any:	US\$ 55,600 (in kind)
▪ Disbursement and execution periods:	36 months
▪ Required start date:	September, 2018
▪ Types of consultants (firm or individual consultants):	Firms and individual consultants
▪ Prepared by Unit:	Labor Markets Division (SCL/LMK)
▪ Unit of Disbursement Responsibility:	Country Office Panama
▪ 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

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

2.1 **The Government of Panama has requested the IDB the operation “Program to support the Productive Development through Human Capital” (PN-L1153).** The main problem this program is aimed to address is the human capital deficit in Panama. Several studies suggest significant weaknesses in human capital that directly affect productivity in the country.<sup>1</sup> The evidence in Panama suggests a mismatch between the skills the employers need and the skills

<sup>1</sup> OECD (2017), World Economic Forum indicators (WEF, 2017).

in the labor market, which represents one of the greatest bottlenecks productivity growth in Panama.

- 2.2 The general objective of the operation is to reduce the skills gap of the Panamanian workforce. The specific objectives of the operation are: (i) support the design and implementation of a strategy to identify and address skill needs in four prioritized sectors (construction, agriculture, logistics and tourism) with the participation of the productive sector; (ii) support the implementation of a relevant information system on the supply and demand of skills; (iii) improve the quality and relevance of training providers for the development of programs and quality management.
- 2.3 To ensure the proper execution for PN-L1153, much preparation work is needed on both the technical and institutional levels. The loan will start with a pilot in the Western Region (WR), given the favorable conditions and the strength of the private sector in the region, which is represented by the Center for the Western Region Competitiveness (CECOMRO). CECOMRO is an association formed by the Entrepreneurs' Association of Panama (APEDE), the Chamber of Commerce, Industries, and Agriculture of Chiriqui, and the Pro-Chiriqui Foundation. The pilot will inform the viability of scaling the program at a national level. In this context, the Component 1 of this Technical Cooperation (TC) is critical for the preparation of the loan operation due to the urgency to advance with the necessary activities to achieve a timely implementation of the loan.

### III. Objectives and Justification of the TC

- 3.1 **Panama has been one of the fastest growing economies in the world over the past decade.** Among Latin American countries (LAC), Panama exhibited the highest GDP growth with an average 6.6% over the period 2007-17. However, most of this economic is explained mainly by factors associated the accumulation of physical capital rather than to an increase in labor productivity. Indeed, Panama's labor productivity represents less than 60% of the average for The Organization for Economic Co-operation and Development (OECD, 2017). If Panama is to expand upon the progress made during the last years, and given the current economic context, it needs to focus its efforts on fostering greater gains in labor productivity.
- 3.2 **A qualified workforce and the mechanisms with which to continuously update its skills are essential drivers of productivity growth.** The international literature shows that, along with innovation, the level of competition, and the incentives for companies, the workforce's stock of skills is one of the main determinants of productivity.<sup>2</sup> A more highly skilled workforce also stimulates productivity indirectly by encouraging innovation, technology adoption, and better business management. There is a two-way relationship between skills, innovation, and management capacity, since innovation and the development of managerial capabilities tend to stimulate demand for workers' skills.<sup>3</sup>
- 3.3 **Rapid technological change continuously generates new demands for skills.** To achieve a good pool of knowledge and skills, not only is the education people receive before entering the labor market important, so too is a training system important, as it allows people to update and enhance their skills throughout their working lives.<sup>4</sup> A lifelong training strategy promotes people's employability over their working lives and ensures effective use and further development of new technologies. This is particularly important considering rapid technological change and longer working lives resulting from increased life expectancy.
- 3.4 From a labor markets perspective, there are three main binding factors in Panama that need to be addressed to increase labor productivity: (i) imbalance between the skills of the workforce and the skills demanded by the productive sector; (ii) insufficient generation of information on

---

<sup>2</sup> OECD, 1994, 2011; Hanushek and Woessmann, 2008; Pagés, 2010; Bassi, Rucci and Urzúa, 2014.

<sup>3</sup> Bauernschuster, Falck and Hebllich, 2009; Dostie, 2014b; Backes-Gellner, Kluike, Pull and Teuber, 2016.

<sup>4</sup> Bassi et al., 2014; Ricart, Morán and Kappaz, 2014; ILO, 2010.

skills demand; and (iii) low adoption of new technologies and lack of innovation by the productive sector.

- 3.5 **Deficit of skilled human capital.** Both the OECD and the World Economic Forum indicators (WEF, 2017) similarly suggest a human capital deficit in the country. Panama has significant weaknesses in skills that directly affect productivity and inclusiveness (OECD, 2017). The evidence in Panama remarks a mismatch between the skills the employers need and the skills in the labor market. According to the results of the 2015 Manpower Talent Shortage Survey, 46% of employers have difficulties filling job vacancies. Similarly, the 2017-2018 Global Competitiveness Index reports an inadequately educated workforce as the third biggest constraint for business development, after "Inefficient Government Bureaucracy" and "Corruption". Estimates of the competencies among production workers suggest that only 35% of them are skilled (OECD, 2017). In addition, the Survey on Productivity and Training of Human Resources in Establishments in Panama (IDB, 2014), suggests that, in addition to the lack of technical skills, there are serious attitudinal deficiencies and soft skills in young people who are entering the labor market.
- 3.6 The Government Strategic Plan 2015-2019 shares this assessment and acknowledges that one of the main challenges for the development of Panama is the insufficient human capital in the labor force (technical and soft skills). This skills mismatch represents one of the greatest bottlenecks productivity growth in Panama. To consolidate sustainable economic growth, Panama will necessarily require a more effective and intelligent use of its workforce and ensuring that they have the skills that employers need. This situation is even more necessary given the rapid technological changes that are profoundly changing labor supply and demand.
- 3.7 The Government of Panama is promoting investments in the WR of the country as it has the potential of becoming a logistics hub and has agricultural and touristic advantages that could help diversify the national productive base. In particular, there are four strategic sectors in this region: (i) logistics, which represents 13.3% of National GDP and an average of 11.7% in the provinces of the WR, (ii) construction, which represents 15.3% of National GDP and, on average, 6% of the WR, (iii) agriculture, which is 1.9% of National GDP and an average of 11.9% in the WR provinces, and (iv) tourism, which is 2.5% of National GDP and an average of 2.1% in the WR provinces<sup>5</sup>.
- 3.8 **Insufficient generation of information on skills demand.** There is insufficient labor market information to support decision making by policy-makers, workers, employers and educators. Specifically, there are no effective mechanisms to identify and anticipate firms' skills demands to inform different stakeholders of the skills system. This is partly a result of the absence of an institution in charge of coordinating, collecting and analyzing labor market information. The Ministry of Labor (MITRADEL) has limited capacity -in terms of infrastructure, coordination with the private sector, and qualified personnel- to systematically capture vacancies and be able to respond to the demands of employers by matching these vacancies to the pool of available workers.
- 3.9 **Reducing skill mismatches entails policy action on the supply side and on the demand side.** Although MITRADEL has made recent advances to build an information system about the demand for skills, it is not enough to identify and define actions that close the skill gaps (OECD, 2017). Providing reliable and free information about employment options in the country, wage levels in different industries, and labor market status by degree, university could help workers better understand the relative value of different qualifications in the labor market and encourage students to enroll in those careers and institutions that offer the best employment and earnings prospect.
- 3.10 **Slow adoption of new technologies and lack of innovation by the productive sector.** With the accelerated pace of technological change driving new productive processes, promoting

---

<sup>5</sup> All data is from the National Institute of Statistics and Census. National data is from 2017 and WR estimations are a simple average of Bocas del Toro, Chiriquí and Veraguas GDP's sectorial composition in 2015.

innovation and adoption of new technologies is critical for business growth<sup>6</sup> In LAC, despite recent advances in penetration and internet use at the consumer level, the level of adoption and use of new technologies at the level of firms is still intermediate, with an important gap with respect to OECD countries. On the other side, innovation is a key determinant of long-term growth by improving the ways in which capital and labor combine and consequently improving the yields for the same level of productive factors. For developed economies, the investment in innovation, in addition to generating new knowledge, have a direct effect on the development of new competencies and skills required by the productive sector.

- 3.11 In Panama, despite the importance of the need for digital transformation and innovation, companies and the government do not have a clear strategy to meet the needs of this transformation. One of the main barriers for the adoption of new technologies, including innovation, is the lack of talent with digital skills,<sup>7</sup> which can negatively impact the productivity and competitiveness of an economy.<sup>8</sup> The general objective of this Technical Cooperation is to support a strategy to reduce the skills gap, including digital skills, of the labor force in Panama, to increase labor productivity. The specific objectives are (i) support the development of a labor market information system by coordinating efforts of different government agencies involved in collecting data to capture and anticipate skills demand; (ii) generate evidence and inform key actors of the innovation system in Panama about the challenges and opportunities facing by the productive sector for the adoption, use and development of digital technology.
- 3.12 **Strategic alignment.** The TC is consistent with the Update to the Institutional Strategy (UIS) 2010-2020 (AB-3008) and is aligned with the development challenges of: (i) social inclusion and equality, by increasing access and use of employment services and diminishing inequities in the labor market; and (ii) productivity and innovation, by increasing equality, access and use of labor training, and life-long skills development, and labor intermediation services, specifically for inserting youth, and the unskilled into the workforce. The TC is also aligned with the priorities of the sector strategy “Social Policy for Equity and Productivity” (GN-2588-4) by: Individuals (all, men, women, youth) benefited from programs to promote higher labor market productivity. The TC is consistent with the strengthening of the educational profile of the population, priority area B, of the IDB Country Strategy (CS) with Panama (2015-2019) (GN-2838) and the Labor Sector Framework Document (SFD) (GN-2741-7). It contributes to the goal of CS to train highly specialized professionals to strengthen innovation capacity to enhance competitiveness in major economic sectors. At SFD level, it is consistent with: workers and companies have access to relevant and cost-effective workforce training mechanisms. Finally, the TC is aligned with the JSF Operating Guidance, which indicates the Fund finances operations to support policy and strategy formulation/implementation activities with priority given to C and D countries. Given that this operation will: (i) provide support productive development through human capital and to the technological capacities of productive sectors; (ii) benefit the Government of Panama, most directly, the Competitiveness and Logistics Secretariat from the Presidency; and (iii) Panama is a C country, the operation is aligned with the purpose of the Fund.”

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

- 4.1 **Component 1: Support productive development through human capital.** The objective of this component is to support the development of a labor market information system by coordinating efforts of different government agencies (Competitiveness and Logistics Secretariat of the Presidency (SECLOG), MITRADEL, the National Institute of Vocational Training and Training for Human Development (INADEH), and the Ministry of Education (MEDUCA)) involved in collecting data to identify skills demand. This component will finance the following activities: (i) Assessment of mechanisms to identify skills demands and supply

---

<sup>6</sup> Digital Transformation of Industries. White Paper, World Economic Forum, 2016.

<sup>7</sup> Refers to the ability and responsible use of digital technologies and platforms to learn, participate in society, analyze, explore and share data and to work effectively alongside machine intelligence (European Commission, 2017).

<sup>8</sup> Technical University of Munich, 2017.

(including technical and soft skills) in specific sectors and/or regions (specifically, the TC will finance activities to identify processes and datasets that can be leveraged to generate information that informs about present and future skills gaps); (ii) a technical assessment of the institutional and management capacity of involved Government agencies for the implementation of an information system to identify skill demands; (iii) design of private sector engagement mechanisms for skills development in Panama, including the evaluation of possible mechanisms to create synergies through which employers can take an active role in identifying skills needs, setting occupational standards, and/or defining curricula for training programs; (iv) a technical assessment of the public institutions that regulate the Technical and Vocational Education and Training (TVET) sector and analysis of the existing mechanisms to ensure quality and relevance of the training supply; (v) implementation design of one training sectorial pilot project in Panama. Resulting products will inform the development of private sector involvement mechanisms considered in Component 1 of PN-L1153, information collection instruments considered in Component 2 of PN-L1153, and teachers' training programs and quality management standards included in Component 3 of PN-L1153.

- 4.2 **Component 2: Support to the technological capacities of productive sectors.** The objective of this component is to generate information about the potential and challenges of digital transformation in Panama, as well as, inform to policy makers on the importance and international best practices to promote the adoption, use and development of digital technologies within a policy framework for the promotion of innovation and productive development in coordination with SENACYT. This component will finance: (i) a diagnostic of the demand for absorption capacities and transfer of technological knowledge for productivity; (ii) the design of a technological extension program in priority sectors (including logistics, transport, energy and water); (iii) an analysis of international best practices of policy interventions to support digital business digital transformation; (iv) the design and implementation of at least two pilots of instruments to support digital business transformation.
- 4.3 **Component 3: Evaluation and project management.** The objective of this component is to inform on the implementation process, results and outputs, obtained in the activities considered in Components 1 and 2. To accomplish this, the TC will also finance monitoring and evaluation activities, and project management, including (i) the design of an M&E plan, (ii) supervision trips and reports, and (iii) a project manager.
- 4.4 This TC will also finance activities to validate and disseminate TC products, including reports, conferences, among others, with actors from the private and public sectors and academia.

**Indicative Budget (US\$)**

Activity / Component	Description	IDB/Fund (JSF)	Counterpart Funding <sup>9</sup>	Total Funding
<b>Component 1: Support productive development through human capital</b>	1.1 Assessment of mechanisms to identify skills demands and supply in specific sectors and/or regions	60.000	-	60.000
	1.2 Technical assessment of the institutional and management capacity for the implementation of an information system to identify skill demands	50.000	-	50.000
	1.3 Design of private sector engagement mechanisms for skills development in Panama.	50.000	-	50.000
	1.4 Technical assessment and evaluation of the public institutions that regulate the	40.000	-	40.000

<sup>9</sup> Local counterpart funding will be in kind.

Activity / Component	Description	IDB/Fund (JSF)	Counterpart Funding <sup>9</sup>	Total Funding
	Technical and Vocational Education and Training sector.			
	1.5 Design the implementation of one training sectorial pilot project in Panama.	30.000	-	30.000
	1.6 Dissemination and communication activities	20.000	10.000	30.000
<b>Subtotal</b>		<b>250.000</b>	<b>10.000</b>	<b>260.000</b>
<b>Component 2: Support to the technological capacities of productive sectors</b>	2.1 Diagnostic of the demand for absorption capacities and transfer of technological knowledge for productivity	60.000		60.000
	2.2 Design of a technological extension program in priority sectors	30.000	-	30.000
	2.3 Analysis of international best practices of policy interventions to support digital business digital transformation	30.000	-	30.000
	2.4 Design and implementation of at least two pilots of instruments to support digital business transformation	60.000	-	60.000
	2.5 Dissemination and communication activities	20.000	10.000	30.000
<b>Subtotal</b>		<b>200.000</b>	<b>10.000</b>	<b>210.000</b>
<b>Component 3: Evaluation and project management</b>	Monitoring and evaluation activities	30.000	20.600	50.600
	Project Management	15.000	15.000	30.000
<b>Subtotal</b>		<b>45.000</b>	<b>35.600</b>	<b>80.600</b>
<b>Incidentals</b>		<b>5.000</b>	<b>-</b>	<b>5.000</b>
<b>TOTAL</b>		<b>500.000</b>	<b>55.600</b>	<b>555.600</b>

## V. Executing agency and execution structure

5.1 At the request of the Government of Panama, the IDB, through the Labor Markets Division (SCL/LMK), will execute this TC to facilitate the execution given that (i) the Bank, through its Labor Market Division (SCL/LMK), has technical expertise in labor market programs and international best practices; (ii) administrative burdens can be reduced on the government, particularly in the identification and contracting of international experts, (iii) the Bank is better positioned to provide execution and oversight of the consultancies that will be carried out under this TC. SCL/LMK will be responsible for the direction, supervision and coordination of this TC, and (iv) the Bank is better positioned to guarantee the execution independence. The Bank will coordinate its work extensively with Government of Panama benefitting entities, most directly, the SECLOG. The Team Leader will be responsible for the execution and expenditure management.

- 5.2 **Procurement.** The activities to be executed are included in the Procurement Plan (Annex IV) and will be contracted in accordance with current Bank procurement policies and procedures. Specifically, Section AM-650 of the Administrative Manual "Complementary Workforce" will be applied in the case of individual consultants, the Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-1) and its Operational Guidelines (OP-1155-4) for hiring consulting services of intellectual nature and the Corporate Procurement Policy (GN-2303-20) for logistics and other related services.
- 5.3 **Monitoring and Reports.** The TC will be supervised by a sectoral specialist (based in Panama) who is also the leader of the related loan. The sectoral specialists will oversee the submission of annual progress reports, completion reports (4 months after the date of completion of the operation), and others regarding this TC, as required by the Grants and Co-financing Management Unit (GCM).
- 5.4 **Execution and disbursement periods.** The execution and disbursement periods will be 36 months.

## VI. Major issues

- 6.1 The main risks identified are: (i) the weak coordination between Government entities (SECLOG, MITRADEL, MEDUCA, and INADEH) and the private sector; and (ii) insufficient data for monitoring and evaluation. To mitigate these risks, this TC will: (i) support the development of an action plan, that will include a mapping of the key stakeholders in the WR, the identification of potential leaders, the design of coordination mechanisms (workshops, work groups, seminars), and monitoring the participation of these stakeholders in the different stages of the implementation of the TC; (ii) monitoring & and evaluation activity has been incorporated to support data collection process.

## VII. Exceptions to Bank policy

- 7.1 None.

## VIII. Environmental and Social Strategy

- 8.1 Due to its nature, it is not foreseen that this TC will have a significant negative environmental or social impact. Therefore, its environmental classification is "C", according to the Environment and Safeguard Compliance Policy (OP-703). See [SPF](#) and [SSF](#).

### Required Annexes:

- [Request from client](#)
- [Results Matrix](#)
- [Terms of Reference for activities/components to be procured](#)
- [Procurement Plan](#)