

TC Document

I. BASIC PROJECT DATA

▪ Country/Region:	LAC Region
▪ TC Name:	Latin American and Caribbean (LAC) Competitiveness and Innovation Environment
▪ TC Number:	RG-T2170
▪ Team Leader/Members:	Claudia Stevenson Team Leader (IFD/CTI); Juan Carlos Navarro (IFD/CTI), Claudia Suaznabar (CTI/CPE), Alison Cathles (IFD/CTI) and Patricia Reyna (IFD/CTI).
▪ Type of Technical Cooperation	Research & Dissemination
▪ Donors Providing Funding	Knowledge Economy Fund
▪ Reference to Request: (IDB docs #)	n/a
▪ Date of TC Document:	September 13, 2012
▪ Beneficiary:	Decision makers and Ministries in LAC, private sector stakeholders, and the IDB
▪ Executing Agency and contact name	Inter-American Development Bank
▪ IDB Funding Requested:	US\$290,000
▪ Disbursement period:	2 years
▪ Required start date:	July 2012
▪ Types of consultants:	Individual consultants
▪ Prepared by Unit:	IFD/CTI
▪ Unit of Disbursement Responsibility:	IDB Headquarters
▪ Included in Country Strategy (y/n);	n/a
▪ TC included in CPD (y/n):	
▪ GCI-9 Sector Priority:	To foster development through the private sector

II. OBJECTIVE AND JUSTIFICATION

- 2.1 Productivity growth in the Latin American and Caribbean (LAC) region has stagnated over the last couple of decades and relative to developed and emerging economies, the region as a whole is underperforming; Inter-American Development Bank (IDB's) DIA 2010¹ suggests that aggregate productivity levels suffer because there are very few firms in LAC with outstanding productivity levels, many firms exhibit low levels of productivity, and there are not enough firms with medium productivity levels. Among other findings, the 2010 DIA indicates that private sector investment in innovation could

¹ Inter-American Development Bank. 2010a. Pagés, C., ed. "The Age of Productivity: Transforming Economies from the Bottom Up." Development in the Americas". Washington, DC: Inter-American Development Bank-Palgrave-McMillan. A confirmation and update of these analyses can be found in IDB's (2012) The Fiscal Institutions of Tomorrow. Washington DC: Inter-American Development Bank. Mimeo.

lead to improvements - both in individual firm performance - and in aggregate productivity levels.

- 2.2 Getting firms interested in investing in innovation has traditionally been approached as a matter of establishing mechanisms that compensate for well-known market failures in the financing of innovation activities. In addition, an implicit requirement of a firm's engagement with innovation has been the need to ensure that they operate in a reasonable business climate, one that frees them from excessive government regulation and provides an adequate legal and competitive environment in terms of trade and investment. Firms, from this perspective, do not exist in a vacuum, but rather in the midst of a business environment that constitutes a critical part of the way they develop, how competitive and productive they become, and whether they are able to invest in innovation.
- 2.3 Years of work on both fronts, namely developing public policies that aim at facilitating financing for private sector innovation and institutional and legal reforms aimed at improving the business climate, have no doubt achieved results. They have, however, failed to produce a single example of a Latin American economy that has visibly and clearly transitioned into a knowledge economy,² one in which the main driver of growth is the production, adaptation and dissemination of knowledge, as applied to the productive process. Many firms in the region now innovate thanks to public innovation funds and similar policy instruments, and even more firms work today in a better business environment thanks to explicit public policies that have managed to align economic incentives for the benefit of competitiveness across certain economies in the region. Yet, despite the progress that has been made, the fact remains that it has not triggered ignition in terms of the aforementioned transition of any of the LAC economies into an innovation-driven economy –whereby a significant share of a country's firms or economic activity is driven primarily by innovation.
- 2.4 Recent development experience indicates very clearly that such a transition is feasible in principle –witness recent developments in Asia³– however, decades of pro-competitive economic policies and continuing commitment to innovation funds across Latin America have yet to produce a clear success story, and at the same time evidence suggests that most of the firms operate far removed from the technological frontier. It can be safely stated that the recent expansionary period in most economies of the region owes a lot to global trends in market for natural raw materials and commodities and very little to the development of technology-based industries or the creation of resilient innovation-based competitive advantages.
- 2.5 Assuming there are indeed diminishing returns from further implementation of the business climate framework, as traditionally understood,⁴ mainly because it fails to address critical features of the emerging knowledge economy. Then the first challenge to

² The World Economic Forum report (2011-212) does not identify even one Latin American economy as innovation-based. They all fall into the category of resource-based or efficiency-based. A few of the most advanced LAC economies (i.e. Argentina, Brazil, Chile, Mexico) are presented as “in transition” to knowledge-based status.

³ The Global Competitiveness Report (2011-2012); World Economic Forum; pages 11 and 34. Many of the emerging economies in east Asia have are now listed as full-fledged innovation-driven (knowledge based) economies.

⁴ This assumption is plausible within our framework, yet it remains uncorroborated. One of the studies contemplated here will proceed to review evidence in this regard.

be faced is that there is not a generally accepted and well developed definition of an alternate notion, one that can be designated as an innovation environment, and therefore, it is not always clear which particular aspects of an environment make it more or less conducive for competitiveness and innovation.

- 2.6 Emerging theorists (Hwang & Horowitz, 2012; Kanter 2012; Shukla, 2012) suggest that in order to understand the elements fundamental to a fertile environment for innovation-led economic growth, one must look to complement traditional mechanisms that focus on innovation inputs (such as Research and Dissemination (R&D) spending) or fostering linkages between firms (cluster theory) with additional measures that acknowledge the complexity of the habitat within which businesses try to survive and thrive. The right climate for innovation is defined as a complex ecosystem⁵ - where adaptability, interdependence, complementarity among a diversity of elements, redundancy and a fair amount of serendipity, rather than planning, constitute the rule and organizing principles. This kind of framework emphasizes that the decisive elements that lead to the flourishing of innovation in a given economy –or in a subset of it, such as a city, a region- are not those traditionally incorporated into the toolkit of industrial and innovation policy (focused on finance and infrastructure, for the most part), but on “intangibles” such as entrepreneurial culture, trust, personal, business and knowledge networks, intellectual property rights management awareness and savvy, global connections, prominence of engineering and design in business venture, and so on.
- 2.7 Key components of the canonical definition of an innovation system (firms, universities, public agencies) should be organized and related, from the “innovation ecosystem” perspective, in such a way that they support and incorporate these elements. It is not a matter of them having the “right policies” or the “right resources” to innovate, but rather that they are focused on building channels, platforms and networks among themselves that favor the circulation of ideas, the incorporation of technology and hence the mainstreaming of innovative economic activity.
- 2.8 Such an approach to innovation is suggestive and theoretically plausible. Latin American policymakers have recently embraced it as a path worth exploring in depth.⁶ Yet it remains untested in a systematic manner and loosely conceptualized. Basic questions remain open, among them:
- What is the right list of the elements that form an adequate innovation environment? What is their relative importance?
 - What are the expected impacts of actions leading to the implementation of such an innovation climate?
 - How would such impacts be measured?
 - What is the role of public policy in putting a good innovation climate in place? Or, even before that, Can the elements of an innovation climate be created intentionally, by design, given the “serendipitous” nature of its architecture?

⁵ “Rainforest” is the term of choice used by the authors of the book: Hwang and Horowitz. 2012. “The Rainforest; The Secret to Building the Next Silicon Valley”. Los Altos Hills, California: Regenwald.

⁶ See Minutes, Regional Policy Dialogue Network Meeting, San Jose, July 2012.

- How close or how far are current firms, universities or public agencies to be able to operate into this kind of environment and supported? What kind of institutional reforms would be needed?
 - Last, but not least, how relevant is all this for Latin American economies?
- 2.9 The current Research and Dissemination (R&D) Technical Cooperation (TC) project constitutes a first systematic exploration of these issues. That so many open questions exist can be seen as less of a problem when considering that the best and dominant framework to understand business climate over the past decade, the World Bank Doing Business framework, remains very limited in scope (by self-admission the Doing Business framework does not measure all aspects of the business environment).⁷ In addition, its adaptation to Latin America and the Caribbean has been rather limited.⁸
- 2.10 The objective of this R&D TC is to develop a framework for assessing and fostering environments that are conducive to competitiveness and innovation in LAC and can be used to frame the analysis of important policy questions. The specific objectives are to: (i) review the history of efforts led by the IDB to address the enabling conditions that facilitate growth of innovative, productive and competitive firms (ii) create a conceptual framework that outlines measurable characteristics affecting the environment for competitiveness and innovation in LAC and (iii) deepen the analytical work and disseminate the results of the first two objectives.
- 2.11 Understanding the dynamics of the environment in which firms innovate and compete is in line with the IDB's strategic goal in the Ninth General Capital Increase (GCI-9) to foster development through the private sector. The *Institutions for Growth and Social Welfare* sector strategy similarly highlights improving the environment for growth and strengthening institutions for innovation and technological development as major components of the strategy

III. DESCRIPTION OF ACTIVITIES/COMPONENTS AND BUDGET

- 3.1 **Component 1: Review of IDB business climate operations** – This component will involve a consultancy aimed at conducting a policy review of the Bank's previous efforts to assess and facilitate favorable conditions for businesses and private sector innovation. In particular this will include a detailed and comparative review of the content of competitiveness PBLs and business climate-focused investment loans, as well as business climate-focused technical cooperation operations. This policy review will: (i) collect all PBL matrixes used in competitiveness-focused Policy Based Loans (PBLs) since the start of this type of operations at the Bank; (ii) review the components of investment operations aimed at improving the business climate; (iii) gather all TC operations focused on promoting a better business climate in countries of the region; (iv) carry out a content

⁷ Doing Business has collected and reported data on 11 indicators related to regulations that affect a firm at different stages of its lifecycle. Regulation is one pertinent environmental factor that affects aggregate productivity but, even by self-admission - Doing Business does not measure all aspects of the business environment or all aspects of competitiveness. Despite its limitations, widespread dissemination of this information to measure the costs of doing business and ample publications (873 articles in peer reviewed journals and 2,332 working papers) have made it mainstream in many countries when it comes to discussing competitiveness policy. A more expansive framework that addresses additional variables affecting the environment for competitiveness and innovation would increase the breadth of the analysis.

⁸ A Google Scholar search for articles and patents since 2004 with Doing Business in the title returns ~608 results. Adding Latin America to the title words; the search returns only 7 results and adding Caribbean to the title words; returns 0 results.

analysis of these materials, with particular reference to gaining an understanding of the typical policy reforms promoted, and its eventual evolution in time; (v) gather all the evidence available on the results and impacts of these operations, so as to produce an overall balance and recommendations regarding IDB operations related to business climate.

- 3.2 **Component 2: Policy Framework** – This component will produce a policy-oriented conceptual framework of the notion of an innovation ecosystem. In order to achieve that, it will finance senior consultants will support the project team by (i) providing state of the art expert advice on current thinking about issues of innovation ecosystems as applied to development; (ii) recommend a set of metrics that would be best suited and included in such a framework in order to fully assess progress in the development of such conditions; (iii) elaborating on whether the framework and metrics developed are well suited to the particular conditions of the economies of LAC; and (iv) contributing to the discussion in a technical workshop organized to present and enrich the policy framework. The component, in addition, includes support for the organization of the technical workshop itself, and it will finance research assistance aimed at: (i) conducting a review of the literature on the scope of intangible conditions that may play a role in competitiveness and innovation environments, and (ii) carrying out data gathering and analysis as needed by the preparation of the policy framework.
- 3.3 **Component 3: Integration and Dissemination** - Based on the results of the analytic study and the proposed policy framework (Component 2) and the results of the operation's policy review (Component 1), a document will be produced by the project team that: (i) summarize the key findings; (ii) extract a balance in terms of what the implications of the findings are in terms of both the need to continue traditional operations aimed at improving business climate and/or the need to replace or combine such operations with a new framework along the lines of the promotion of innovation ecosystems; (iii) highlight recommendations for both the Bank and policymakers in the region, describing a suggested course of action; and (iv) outline and kick start a research agenda directed toward an empirical assessment and analysis along the lines of the newly defined conceptual framework (case studies, econometric studies, institutional analysis).
- 3.4 Funding has been included in this component for: (a) research assistance for the production of the document outlined above; (b) editing, translation, shipping and programming needs related to the dissemination of the three major publications coming out of the project as a whole; (c) carrying out a policy workshop to share the results with high-level public officials in LAC countries⁹, and (d) two case studies, one econometric study and one institutional analysis understood as the kick starting of the research agenda resulting from the project and spelled out in the integration paper described above.
- 3.5 **Results:** The matrix below presents the main results expected from this project.

⁹ This policy dialogue workshop will represent a follow up to the Policy Dialogue meeting that took place in Silicon Valley, California on July, 2011, on the occasion of the Global Innovation Summit.

Indicative Results Matrix

Indicator	Base Line	Expected Result	Mode of Verification
Result A: # of times knowledge produced has been used in high level policy discussions	0	15	Minutes of the workshops and other innovation meetings and in LAC.
<i>Output 1</i> - Policy framework	0	1	Concept / Technical note published
<i>Output 2</i> - Policy Review of IDB lending and TC projects	0	1	Policy Review Report (Technical Note, published)
<i>Output 3</i> - Integration and dissemination paper	0	1	Concept / Technical Note published
<i>Output(s) 4</i> - Two case studies, one econometric study on innovation ecosystems in LAC	0	3	Three Technical Notes published
<i>Output(s) 5</i> - Policy Workshops	0	2	Minutes of the Workshop and Seminar
Result B: # of downloads of technical notes produced as part of this TC	0	150	IDB website / Google Analytics
<i>Outputs 1, 2, 3 and 4</i>	0	6	Concept / Technical notes published
Result C: # of citations of technical notes produced as part of this TC	0	10	IDB website / Google Analytics
<i>Outputs 1, 2, 3, and 4</i>	0	6	Concept / Technical notes published
Result D: the knowledge produced as a result of this TC will influence the future design of PBLs and IDB operations that address the business climate in LAC	0	1	PBL or IDB Operation that incorporates the findings from the knowledge produced by this TC or refers to the studies as part of the justification for intervention.

3.6 **Budget:** To achieve the outputs and activities described, the total cost of this project is \$ 290,000.

Indicative Budget

Activity/Component	Description	IDB/Fund Funding	Total Funding
Component 1 Review of IDB business climate operations			
Review IDB lending and TC projects	Compile a review of every project on this topic – bank wide	25,000	25,000
Component 2: Policy Framework			
2 Senior Consultants	International consultants to provide advice innovation ecosystems, policy framework, metrics	45,000	45,000
Research assistant	Literature review, data gathering, statistical analysis (7 months)	35,000	35,000
Workshop in Washington, D.C. on New Perspectives on Business and Innovation Climate	Discussion of the analytical study drawing on the expertise of high-level international authorities and selected CTI senior specialists	15,000	15,000
Total Component 2		95,000	95,000
Component 3: Integration and Dissemination			
International Workshop held at the IDB headquarters in Washington, D.C.: Policy dialogue with key stakeholders	Present the results to LAC stakeholders at an event and discuss next steps	25,000	25,000
Research assistance, Integration and Dissemination product	Integrate the output of the two previous components having in mind the drawing of policy recommendations and producing an outline of a research agenda on innovation ecosystems. Presenting it in formats that facilitate dissemination	15,000	15,000
Kick start a research agenda on innovation ecosystems and deliver 3 knowledge dissemination products	Conduct preliminary empirical analysis along the lines of the proposed conceptual framework in a series of individual studies (two case studies, one econometric analysis).	70,000	70,000

Activity/Component	Description	IDB/Fund Funding	Total Funding
Editing, translation, programming, printing, shipping		20,000	20,000
<i>Total Component 3</i>		<i>130,000</i>	<i>130,000</i>
Evaluation/Peer review		10,000	10,000
Coordination and Supervision		15,000	15,000
Auditor		5,000	5,000
Contingency		10,000	10,000
Total		290,000	290,000

IV. EXECUTING AGENCY AND EXECUTION STRUCTURE

- 4.1 This technical cooperation will be executed from the IDB's headquarters and its implementation and monitoring is the responsibility of IFD/CTI. The project will be Bank-executed because of its ability to coordinate activities on a regional basis and its proven record for executing TC activities and ability to identify qualified senior consultants and to disseminate results to all member countries. In addition, this operation will contribute to increasing the knowledge of IDB specialists and will strengthen their capacity to support member countries.
- 4.2 **Procurement:** Consultants and services will be hired to support the implementation of project activities. The Bank will contract all the consultancies and services in accordance with the policies and procedures of the Bank. The terms of reference for the consultancies and the procurement plan are included as Annexes.
- 4.3 **Monitoring and Evaluation:** the above indicative results matrix will serve as the framework for which this technical cooperation will be monitored and evaluated. Since this is a two year project, the progress in terms of the outputs will be assessed at six month intervals. The progress in terms of the outcomes will be assessed at 6 month intervals beginning six months before the conclusion of the TC.

V. PROJECT RISKS AND MAJOR ISSUES

- 5.1 Risks are mainly due to possible limitations in the availability of data and other information for LAC countries making it more difficult for consultants to conduct high-quality studies. Careful selection of the consultants and design of their terms of reference as well as close supervision of the consultants and clear timely feedback should mitigate these risks.

VI. EXCEPTIONS TO BANK POLICY

- 6.1 There are no expected exceptions to Bank policy in the execution of this TC.

VII. ENVIRONMENTAL AND SOCIAL CLASSIFICATION

- 7.1 There are no environmental risks associated with this TC. In accordance with this and the ESG classification this operation has been classified as "C".

Required Annexes:

- Annex I: Terms of Reference for activities/components to be procured
- Annex II: Procurement Plan

REGIONAL

RG-T2170

LATIN AMERICAN AND CARIBBEAN (LAC) COMPETITIVENESS AND INNOVATION ENVIRONMENT

CONSULTANCY FOR A POLICY REVIEW AND COLLECTION OF BEST PRACTICES

TERMS OF REFERENCE

I. BACKGROUND

- 1.1 Productivity growth in the LAC region has stagnated over the last couple of decades and relative to developed and emerging economies, the region as a whole is underperforming; IDB's DIA 2010 suggests that aggregate productivity levels suffer because there are very few firms in LAC with outstanding productivity levels, many firms exhibit low levels of productivity, and there are not enough firms with medium productivity levels. Among other findings, the 2010 DIA indicates that private sector investment in innovation could lead to improvements - both in individual firm performance - and in aggregate productivity levels.
- 1.2 Getting firms interested in investing in innovation has traditionally been approached as a matter of establishing mechanisms that compensate for well-known market failures in the financing of innovation activities. In addition, an implicit requirement of a firm's engagement with innovation has been the need to ensure that they operate in a reasonable business climate, one that frees them from excessive government regulation and provides an adequate legal and competitive environment in terms of trade and investment. Firms, from this perspective, do not exist in a vacuum, but rather in the midst of a business environment that constitutes a critical part of the way they develop, how competitive and productive they become, and whether they are able to invest in innovation.
- 1.3 Years of work on both fronts, namely developing public policies that aim at facilitating financing for private sector innovation and institutional and legal reforms aimed at improving the business climate, have no doubt achieved results. They have, however, failed to produce a single example of a Latin American economy that has visibly and clearly transitioned into an innovation-driven / knowledge economy¹, one in which the main driver of growth is the production, adaptation and dissemination of knowledge, as applied to the productive process.

¹ The World Economic Forum report (2011) identifies not one Latin American economy as innovation-based. They all fall into the category of resource-based or efficiency-based. The Chilean economy is presented as "in transition" to knowledge-based status.

- 1.4 Assuming there are indeed diminishing returns from further implementation of the business climate framework, as traditionally understood², mainly because it fails to address critical features of the emerging knowledge economy. Then the first challenge to be faced is that there is not a generally accepted and well developed definition of an alternate notion, one that can be designated as an innovation environment, and therefore; it is not always clear which particular aspects of an environment make it more or less conducive for competitiveness and innovation.
- 1.5 Emerging theorists (Hwang & Horowitz, 2012; Kanter 2012; Shukla, 2012) suggest the right climate for innovation is defined as a complex ecosystem³ – where adaptability, interdependence, complementarity among a diversity of elements, redundancy and a fair amount of serendipity, rather than planning, constitute the rule and organizing principles. This kind of framework emphasizes that the decisive elements that lead to the flourishing of innovation in a given economy –or in a subset of it, such as a city, a region- are not those traditionally incorporated into the toolkit of industrial and innovation policy (focused on finance and infrastructure, for the most part), but on “intangibles” such as entrepreneurial culture, trust, personal, business and knowledge networks, intellectual property rights management awareness and savvy, global connections, prominence of engineering and design in business venture, and so on.
- 1.6 The current research and dissemination TC project constitutes a first systematic exploration of these issues. That so many open questions exist can be seen as less of a problem when considering that the best and dominant framework to understand business climate over the past decade, the World Bank Doing Business framework.^{4,5}
- 1.7 The IDB has been working to position itself as a thought leader in innovation and competitiveness and through projects such as this one, it will continue to develop and raise awareness where there are critical knowledge gaps. The IDB’s Competitiveness and Innovation Division will launch a research program (RG-T2170) for the express purpose of addressing the need to develop a clear framework for assessing and fostering environments that are conducive to competitiveness and innovation in LAC and can be used to frame the analysis of important policy questions.

² This assumption is plausible within our framework, yet it remains uncorroborated. One of the studies contemplated here will proceed to review evidence in this regard.

³ “Rainforest” is the term of choice used by the authors of the book: Hwang and Horowitz. 2012. “The Rainforest; the Secret to Building the Next Silicon Valley”. Los Altos Hills, California: Regenwald.

⁴ *Doing Business* has collected and reported data on 11 indicators related to regulations that affect a firm at different stages of its lifecycle. By self-admission - *Doing Business* does not measure all aspects of the business environment or all aspects of competitiveness. Despite its limitations, widespread dissemination of this information to measure the costs of doing business and ample publications (873 articles in peer reviewed journals and 2,332 working papers) have made it mainstream in many countries when it comes to discussing competitiveness policy.

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- 1.8 A component of RG-2170 will be dedicated to reviewing and documenting the Bank's previous efforts to assess and facilitate enabling conditions for businesses, competitiveness and innovation in light of the current development challenges of the region; this will include competitiveness PBLs, investment loans, and TCs focused on competitiveness. In order to execute that component, it will be necessary to contract senior consultants in agreement with these Terms of Reference.

II. OBJECTIVES

- 2.1 The objective of this consultancy is to perform a policy review and mapping exercise of previous IDB efforts to support policy instruments, lending operations and technical assistance for the purpose of stimulating enabling environments for a) businesses b) competitiveness and/or c) innovation. An important aspect of the review will include an analytical section to assess strengths and weaknesses of the previous efforts and assemble a set of successful practices and suggest a set of priority action areas for CTI and the IDB.

III. MAIN ACTIVITIES

- 3.1 The consultant must perform the following activities:

Methodology and Final Work Plan: The consultant will submit a detailed description of the methodology that will be used and the Work Plan for the duration of the consultancy, including:

- a) Technical Approach: defining the scope of work the numbers and types of loans and TCs considered and methodology used for data collection and analysis of the data.
- b) Details of activities necessary for the deliverable and a detailed work schedule, specifying the distribution of tasks.
- c) Anything else the consultant deems necessary for the execution of the consultancy.

- 3.2 Identification and detailed description of the Competitiveness and Innovation policies, including but not limited to:

- The objective of the policy instrument, lending operation or technical assistance program
- The specific enabling conditions that the interventions were meant to address
- A classification of the types of interventions and their intended consequences
- Modality of financing and the amount of financing that was dedicated to the policy instrument or incentive, lending operation or technical assistance program
- A summary of evaluation efforts; previous and/or ex-post and a table of the documented results that were deemed successful

- Summary of the previous efforts by type; by intended condition the intervention was meant to affect and by institution
- 3.3 Benchmarking analysis of the past programs, lending operations and policies with the best international practices for similar instruments or policies and a brief analysis that relates the historical evolution of such policies over time in both the Latin American and Caribbean region and internationally.

IV. REPORTS / DELIVERABLES

- 4.1 Deliverables will consist of the following:
- **First Deliverable:** Final Approved Work Plan
 - **Second Deliverable:** Draft Policy and Program Review
 - **Final Deliverable:** Final report Policy and Program Review and Road Map

V. PAYMENTS

- 5.1 Payments will be made as detailed below:
- 10% at the final acceptance and signing of the contract.
 - 10% at the delivery of the First Deliverable.
 - 30% after the submission and approval of the Second Deliverable.
 - 50% after the submission and approval of the Final Deliverable.

VI. COORDINATION

- 6.1 The technical and administrative responsibilities of this consultancy will be coordinated by Claudia Stevenson and Juan Carlos Navarro (IFD/CTI) and members of the project team.

VII. CHARACTERISTICS OF THE CONSULTANCY

- 7.1 Type: International Senior Individual Consultant
- 7.2 Duration: Starting on October 1st, 2012; duration of 6 months.
- 7.3 Place of work: External Consultancy or IDB Headquarters in Washington, DC.

VIII. QUALIFICATIONS

- 8.1 Academic Degree/ level and years of experience: no less than 5 years of experience in conducting policy reviews and or synthesizing past efforts by multi-lateral institutions and policy makers to design policy instruments and 3 years of experience with assessing the quality of practices during policy implementation in a variety of international contexts. A Master's degree in economics, public policy or a similar field is required.
- 8.2 Language: In order to read and understand all of the IDB documents related to this consultancy, the consultant is required to be fluent in both Spanish and English.
- 8.3 Areas of expertise: It is mandatory that the expertise should not be confined only to developed nation contexts. Preference will be given to candidates that have specific academic or applied backgrounds in assessing interventions aimed at stimulating business, innovation and competitiveness environments or a similar field.

Payment and Conditions of Employment: If the work will be carried out at Bank headquarters in Washington D.C. Remuneration will be determined in accordance with Bank regulations and criteria. The Bank will additionally contribute toward travel and moving expenses, if applicable. If a candidate is not a citizen or resident of the United States, the Bank will apply for a G-IV visa from the consulate of the United States in the candidate's country of origin. If a candidate cannot obtain a visa to work at the IDB the contractual offer will be rescinded.

Consanguinity: Individuals with relatives working for the IDB within, and including the fourth degree of consanguinity and the second degree of affinity are not eligible for employment as staff, consultants, or contractors through firms or agencies. Candidates must be citizens of a member country of the Inter-American Development Bank

REGIONAL

RG-T2170

LATIN AMERICAN AND CARIBBEAN (LAC) COMPETITIVENESS AND INNOVATION ENVIRONMENT

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- 1.7 The IDB has been working to position itself as a thought leader in innovation and competitiveness and through projects such as this one, it will continue to develop and raise awareness where there are critical knowledge gaps. The IDB’s Competitiveness and Innovation Division will launch a research program (RG-T2170) for the express purpose of addressing the need to develop a clear framework for assessing and fostering environments that are conducive to competitiveness and innovation in LAC and can be used to frame the analysis of important policy questions.
- 1.8 A component of this TC’s research program will be dedicated to creating a conceptual framework that outlines measurable characteristics affecting the

³ “rainforest” is the term of choice used by the authors of the book: Hwang and Horowitz. 2012. “The Rainforest; The Secret to Building the Next Silicon Valley”. Los Altos Hills, California: Regenwald.

⁴ *Doing Business* has collected and reported data on 11 indicators related to regulations that affect a firm at different stages of its lifecycle. By self-admission - *Doing Business* does not measure all aspects of the business environment or all aspects of competitiveness. Despite its limitations, widespread dissemination of this information to measure the costs of doing business and ample publications (873 articles in peer reviewed journals and 2,332 working papers) have made it mainstream in many countries when it comes to discussing competitiveness policy.

⁵ A Google Scholar search for articles and patents since 2004 with Doing Business in the title returns ~608 results. Adding Latin America to the title words; the search returns only 7 results and adding Caribbean to the title words; returns 0 results.

environment for competitiveness and innovation in LAC. In order to execute that component, it will be necessary to contract senior consultants in agreement with these Terms of Reference.

II. CONSULTANCY OBJECTIVES

- 2.1 The objective of this consultancy is to define a framework for evaluating and assessing innovation and competitiveness environments in LAC; comprehensive in its perimeters and agile enough to capture local nuances.
- 2.2 The specific objectives will be to:
 - a. Provide International expertise and advice regarding conceptual frameworks that could be used for innovation and competitiveness environments based on all the current available measures and indicators gauging each measure from the perspective of its usefulness for the LAC region.
 - b. The consultant(s) will participate in a small workshop with a panel of experts and selected CTI staff and management to; review the types of measurements or indicators that are available, recommend a set of metrics that would be best suited for a framework that could fully assess progress and development in conditions that foster innovation and competitiveness, gauge the usefulness of such metrics in LAC, and give the panelists an opportunity to clarify any doubts. In addition, the consultant(s) will be invited to attend a second workshop that will facilitate a policy dialogue and disseminate the results of RG-T2170 with key LAC stakeholders soliciting feedback and determining the next steps.
 - c. Review the inputs, potential metrics and the conceptual framework considering how the IDB can contribute to the field in the context of existing models and practices of other international organizations.

III. MAIN ACTIVITIES

- 3.1 The activities will include, but may not be limited to:
- 3.2 Provide top-level expert advice regarding the current thinking about issues of innovation ecosystems as applied to the context of developing and emerging Latin American and Caribbean economies.
- 3.3 Provide input regarding the scope of intangible conditions that may play a role in competitiveness and innovation environments and contribute to the generation of

- a synthesis of the measures and/or past attempts to capture information about those conditions in different economies.
- 3.4 Provide inputs and recommendations for a set of metrics that would be best suited for a framework that could fully assess progress and development in conditions that foster innovation and competitiveness, gauge the usefulness of such metrics in LAC. Provide comments and suggestions for all materials that will be generated as inputs for the Workshop on *New Perspectives on Business and Innovation Climate*.
 - 3.5 Participate in the workshop on *New Perspectives on Business and Innovation Climate* with a panel of experts and selected CTI staff and management to; present inputs and/or advice and gather feedback from other panelists.
 - 3.6 Provide formal advice regarding the conceptual framework that will draws on the results and conclusions reached in activities 3.2 through 3.5 and identify potential weaknesses or implicit incentives generated by the conceptual framework and each of its metrics. Document the advice in a report.

IV. REPORTS/OUTPUTS/DELIVERABLES

- 4.1 Deliverables will consist of the following:

First Deliverable: Workshop participation

Second Deliverable: Advisory Report (described in 3.6)

V. PAYMENTS

- 5.1 Payments will be made as detailed below:
 - 20% at the final acceptance and signing of the contract
 - 40% after the participation in the workshop
 - 40% at the delivery and approval of the Second Deliverable – Advisory Report

VI. COORDINATION

- 6.1 The technical and administrative responsibilities of this consultancy will be coordinated by Juan Carlos Navarro and Claudia Stevenson (IFD/CTI) and members of the project team.

VII. CHARACTERISTICS OF THE CONSULTANCY

- 7.1 Type of consultancy: Individual International
- 7.2 Duration: Starting on November 1st, 2012; duration of 6 months.
- 7.3 Place of work: External Consultancy with 3 Missions to the IDB Headquarters in Washington, DC.

VIII. QUALIFICATIONS

- 8.1 Requirements for the Individual Senior Consultant(s):
 - Academic Degree/ level and years of experience: no less than 10 years of experience in the evaluation and design of economic diversification and innovation policy instruments and 5 years of experience with assessing the quality of practices during innovation policy implementation in a variety of international contexts. A Master's degree in economics, public policy or a similar field is required.
 - Areas of expertise: It is mandatory that the expertise should not be confined only to developed nation contexts. Preference will be given to candidates that have specific academic or applied backgrounds in assessing innovation and competitiveness environments or in developing conceptual frameworks.

Payment and Conditions of Employment: If the work will be carried out at Bank headquarters in Washington D.C. Remuneration will be determined in accordance with Bank regulations and criteria. The Bank will additionally contribute toward travel and moving expenses, if applicable. If a candidate is not a citizen or resident of the United States, the Bank will apply for a G-IV visa from the consulate of the United States in the candidate's country of origin. If a candidate cannot obtain a visa to work at the IDB the contractual offer will be rescinded.

Consanguinity: Individuals with relatives working for the IDB within, and including the fourth degree of consanguinity and the second degree of affinity are not eligible for employment as staff, consultants, or contractors through firms or agencies. Candidates must be citizens of a member country of the Inter-American Development Bank

REGIONAL

RG-T2170

LATIN AMERICAN AND CARIBBEAN (LAC) COMPETITIVENESS AND INNOVATION ENVIRONMENT

TERMS OF REFERENCE

I. BACKGROUND

- 1.1 Productivity growth in the LAC region has stagnated over the last couple of decades and relative to developed and emerging economies, the region as a whole is underperforming; IDB's DIA 2010 suggests that aggregate productivity levels suffer because there are very few firms in LAC with outstanding productivity levels, many firms exhibit low levels of productivity, and there are not enough firms with medium productivity levels. Among other findings, the 2010 DIA indicates that private sector investment in innovation could lead to improvements - both in individual firm performance - and in aggregate productivity levels.
- 1.2 Getting firms interested in investing in innovation has traditionally been approached as a matter of establishing mechanisms that compensate for well-known market failures in the financing of innovation activities. In addition, an implicit requirement of a firm's engagement with innovation has been the need to ensure that they operate in a reasonable business climate, one that frees them from excessive government regulation and provides an adequate legal and competitive environment in terms of trade and investment. Firms, from this perspective, do not exist in a vacuum, but rather in the midst of a business environment that constitutes a critical part of the way they develop, how competitive and productive they become, and whether they are able to invest in innovation.
- 1.3 Years of work on both fronts, namely developing public policies that aim at facilitating financing for private sector innovation and institutional and legal reforms aimed at improving the business climate, have no doubt achieved results. They have, however, failed to produce a single example of a Latin American economy that has visibly and clearly transitioned into an innovation-driven / knowledge economy¹, one in which the main driver of growth is the production, adaptation and dissemination of knowledge, as applied to the productive process.
- 1.4 Assuming there are indeed diminishing returns from further implementation of the business climate framework, as traditionally understood², mainly because it fails

¹ The World Economic Forum report (2011) identifies not one Latin American economy as innovation-based. They all fall into the category of resource-based or efficiency-based. The Chilean economy is presented as "in transition" to knowledge-based status.

² This assumption is plausible within our framework, yet it remains uncorroborated. One of the studies contemplated here will proceed to review evidence in this regard.

- to address critical features of the emerging knowledge economy. Then the first challenge to be faced is that there is not a generally accepted and well developed definition of an alternate notion, one that can be designated as an innovation environment, and therefore; it is not always clear which particular aspects of an environment make it more or less conducive for competitiveness and innovation.
- 1.5 Emerging theorists (Hwang & Horowitz, 2012; Kanter 2012; Shukla, 2012) suggest the right climate for innovation is defined as a complex ecosystem³ – where adaptability, interdependence, complementarity among a diversity of elements, redundancy and a fair amount of serendipity, rather than planning, constitute the rule and organizing principles. This kind of framework emphasizes that the decisive elements that lead to the flourishing of innovation in a given economy –or in a subset of it, such as a city, a region- are not those traditionally incorporated into the toolkit of industrial and innovation policy (focused on finance and infrastructure, for the most part), but on “intangibles” such as entrepreneurial culture, trust, personal, business and knowledge networks, intellectual property rights management awareness and savvy, global connections, prominence of engineering and design in business venture, and so on.
 - 1.6 The current research and dissemination TC project constitutes a first systematic exploration of these issues. That so many open questions exist can be seen as less of a problem when considering that the best and dominant framework to understand business climate over the past decade, the World Bank Doing Business framework.^{4,5}
 - 1.7 The IDB has been working to position itself as a thought leader in innovation and competitiveness and through projects such as this one, it will continue to develop and raise awareness where there are critical knowledge gaps. The IDB’s Competitiveness and Innovation Division will launch a research program (RG-T2170) for the express purpose of addressing the need to develop a clear framework for assessing and fostering environments that are conducive to competitiveness and innovation in LAC and can be used to frame the analysis of important policy questions.
 - 1.8 In order to execute the research and dissemination and the products of this technical cooperation, it will be necessary to contract a consultant to provide

³ “rainforest” is the term of choice used by the authors of the book: Hwang and Horowitz. 2012. “The Rainforest; The Secret to Building the Next Silicon Valley”. Los Altos Hills, California: Regenwald.

⁴ *Doing Business* has collected and reported data on 11 indicators related to regulations that affect a firm at different stages of its lifecycle. By self-admission - *Doing Business* does not measure all aspects of the business environment or all aspects of competitiveness. Despite its limitations, widespread dissemination of this information to measure the costs of doing business and ample publications (873 articles in peer reviewed journals and 2,332 working papers) have made it mainstream in many countries when it comes to discussing competitiveness policy.

⁵ A Google Scholar search for articles and patents since 2004 with Doing Business in the title returns ~608 results. Adding Latin America to the title words; the search returns only 7 results and adding Caribbean to the title words; returns 0 results.

research assistance and other types of support in agreement with these Terms of Reference.

II. CONSULTANCY OBJECTIVES

- 2.1 The objective of this consultancy is to provide research and statistical support to the IFD-CTI research team for the development of a framework for evaluating and assessing innovation and competitiveness environments in LAC; comprehensive in its perimeters and agile enough to capture local nuances.
- 2.2 The specific objectives will be to:
 - a. Gather information regarding conceptual frameworks that could be used for innovation and competitiveness environments based on all the current available measures and indicators gauging each measure from the perspective of its usefulness for the LAC region.
 - b. Provide support for workshops that will be held as part of RG-T2170 document and communicate the results of the workshops internally within division and the IDB.

III. MAIN ACTIVITIES

- 3.1 The activities will include, but may not be limited to:
- 3.2 Conduct a literature review on the scope of intangible conditions that may play a role in competitiveness and innovation environments and contribute to the generation of a synthesis of the measures and/or past attempts to capture information about those conditions in different economies.
- 3.3 Gather information, collect and analyze data as needed about issues of innovation ecosystems as applied to the context of developing and emerging Latin American and Caribbean economies and to provide support for the preparation of the policy framework.
- 3.4 Support the process of preparing inputs for the Workshop on *New Perspectives on Business and Innovation Climate*.
- 3.5 Document the results of workshop on *New Perspectives on Business and Innovation Climate*. Prepare communication documents that can be used internally within CTI and the rest of the IDB.
- 3.6 Provide support for the International Workshop: *Policy Dialogue with Key Stakeholders* and support for the development of the products that will result from RG-T2170.

IV. PAYMENTS

- 4.1 Compensation will be twice monthly.

V. COORDINATION

- 5.1 The technical and administrative responsibilities of this consultancy will be coordinated by Juan Carlos Navarro (IFD/CTI).

VI. CHARACTERISTICS OF THE CONSULTANCY

- 6.1 Type of consultancy: Individual International
- 6.2 Duration: Starting on December 1st, 2012; duration of 1 year.
- 6.3 Place of work: Washington, DC. IDB Headquarters

VII. QUALIFICATIONS

- 7.1 Requirements for the research assistance Consultant(s):
- Academic Degree/ level and years of experience: At least 2 years of experience in conducting literature reviews, data production, or research assistance including work related to data and its analysis. A Master's degree in statistics, economics, public policy, industrial or innovation economics or a similar field is required.
 - Areas of expertise: It is mandatory that the expertise should not be confined only to developed nation contexts. Preference will be given to candidates that have knowledge of STATA or similar statistical software and proficiency in English and Spanish.

Payment and Conditions of Employment: If the work will be carried out at Bank headquarters in Washington D.C. Remuneration will be determined in accordance with Bank regulations and criteria. The Bank will additionally contribute toward travel and moving expenses, if applicable. If a candidate is not a citizen or resident of the United States, the Bank will apply for a G-IV visa from the consulate of the United States in the candidate's country of origin. If a candidate cannot obtain a visa to work at the IDB the contractual offer will be rescinded.

Consanguinity: Individuals with relatives working for the IDB within, and including the fourth degree of consanguinity and the second degree of affinity are not eligible for employment as staff, consultants, or contractors through firms or agencies. Candidates must be citizens of a member country of the Inter-American Development Bank

PROCUREMENT PLAN

LATIN AMERICAN AND CARIBBEAN (LAC) COMPETITIVENESS AND INNOVATION ENVIRONMENT

Project Number: RG-T2170

Period comprised in this Procurement Plan: From November 2012 to November 2014

[illegible]

Ref. No. ¹	Description of main procurement activities during the next 12 months.	Estimated cost in (US\$ thousands)	Procurement method ²	Source of financing and percentage		Prequalification ³ (Yes / No)	Estimated Dates		Status ⁴ (pending, in process, awarded, cancelled)	Comment
				IDB %	Local / Other %		Publication of specific procurement notice	Completion of contract		
	LAC in a technical note format and in compliance with the latest version of the VPS protocol for VPS/VPC publications to facilitate dissemination and publication of the associated knowledge products.									
	Evaluation / Peer review	\$10,000	QCII	100%	0%	No		Q4 2014	Pending	
	Coordination and Supervision	\$15,000	QCII	100%	0%	No		Q4 2014	Pending	
	Auditor	5,000	PSA	100%	0%	No		Q4 2014	Pending	
	Contingency	\$10,000	TBD	100%	0%	No		TBD	Pending	
2	Goods and Services									
	Publication costs	\$20,000	PC	100%	0%	No		Q2 2014	Pending	
	Description: Editing, translation, programming, printing, shipping									
	Workshop I – New Perspectives on Business and Innovation Climate	\$15,000	PC	100%	0%	No		Q4 2013	Pending	
	Workshop II – International Policy Dialogue with key stakeholders	\$25,000	PC	100%	0%	No		Q3 2014	Pending	

² **Goods and Works:** ICB: International competitive bidding; **LIB:** limited international bidding; **NCB:** national competitive bidding; **PC:** price comparison; **DC:** direct contracting; **FA:** force account; **PSA:** Procurement through specialized agencies; **PAs:** Procurement agents; **IA:** Inspection agents; **PLFI:** Procurement in loans to financial intermediaries; **BOO/BOT/BOOT:** Build, own, operate/build, operate, transfer/build, own, operate, transfer; **PBP:** Performance-based procurement; **PLGB:** Procurement

⁴Column “Status” will be used for retroactive procurement and when updating the procurement plan.