

## DEVELOPMENT OF THE NATURAL CAPITAL LAB

RG-T3415

### CERTIFICATION

I hereby certify that this operation was approved for financing under the **Ordinary Capital Strategic Development Program for Sustainability (SUS)**, and through a communication dated February 26, 2019 and signed by Felipe Caicedo (ORP/GCM). Also, I certify that resources from said funds are available for a combined up to **US\$975,000** 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, representing a risk that will not be absorbed by the Fund.

Certified by:	Original Signed	05/03/2019
	Sonia M. Rivera	Date
	Chief	
	Grants and Co-Financing Management Unit	
	ORP/GCM	

Approved by :	Original Signed	05/07/2019
	Juan Pablo Bonilla	Date
	Manager	
	Climate Change and Sustainable Development	
	Sector CSD/CSD	

## TC Document

### I. Basic Information for the Technical Cooperation (TC)

▪ Country/Region:	REGIONAL/IDB
▪ TC Name:	Development of the Natural Capital Lab
▪ TC Number:	RG-T3415
▪ Team Leader/Members:	Gregory Watson (CSD/CSD) Team Leader; Napoleao Dequech (CSD/CSD); Maria Vizeu Pinheiro (CSD/RND); Cesar Leyva (CSD/CSD); Mila Alvarez (CSD/RND); Monica Centeno (LEG/SGO); Anita Fiori (MIF/LEU); Hilen Meirovich (INO/NFP), Ynty Martinez (CSD/CSD), Juan Gomez, (CSD/CCS)
▪ Taxonomy:	Research and Dissemination
▪ Date of TC Abstract Authorization:	22 Jan 2019
▪ Beneficiary:	Borrowing member countries of the IDB
▪ Executing Agency:	Inter-American Development Bank
▪ Donors providing funding:	OC Strategic Development Program for Sustainability (SUS)
▪ IDB funding requested:	\$975,000
▪ Local counterpart funding:	N/A
▪ Disbursement period:	24 months (execution period: 24 months)
▪ Required start date:	April 2019
▪ Types of consultants:	Firms and Individuals
▪ Prepared by Unit:	Climate Change and Sustainable Development Sector (CSD/CSD)
▪ Unit of Disbursement Responsibility:	CSD
▪ TC included in Country Strategy:	No
▪ TC included in CPD:	No
▪ Alignment to the Update of the Institutional Strategy:	Productivity and innovation; and environmental sustainability

### II. Objective and Justification of the TC

- 2.1 To support the sustainable use of natural capital, the Inter-American Development Bank Group (IDBG) has launched the Natural Capital Lab with the vision of serving as a one-stop shop for the IDBG to drive innovation in the sustainable use and conservation of landscape and marine ecosystems<sup>1</sup>. The Natural Capital Lab is strategic resource of the IDB's Climate Change and Sustainability Division, created jointly with the IDB Lab, and will serve as a new space where the public and private sectors can work together, connecting different stakeholders with IDBG programming.
- 2.2 This TC will support the Climate Change and Sustainable Development Department (CSD/CSD) in the development of the Natural Capital Lab. It will enable the Lab to: (i) generate knowledge and capacity to support the deployment of Natural Capital Lab resources committed by the Governments of France and

<sup>1</sup> Natural capital definition includes assets in terrestrial, coastal and marine areas that generate flows of ecosystem services that benefit people. These ecosystem services are classified as provisioning services (e.g., water, food and fiber), regulating services (e.g., atmospheric and hydrological regulation), and recreation and cultural services (e.g., tourism and acquisition of knowledge) (Haines-Young and Potschin-Young, 2018.) The term "natural capital" refers to the terrestrial and marine ecosystem components, including biodiversity, that contribute to the generation of valuable goods and services for humankind now and in the future (Guerry et al., 2015).

- the UK, among other donors<sup>2</sup>; (ii) support the identification and development of innovative tools, incubation of ideas, and test new financing models to value and protect the region's natural capital; (iii) enhance regional dialogues and disseminate the knowledge generated by IDBG projects and products to the region's countries through workshops and events; and (iv) help to reinforce the Bank's strategic positioning on natural capital, strengthening the establishment of strategic partnerships with both the public and the private sector.
- 2.3 The Lab will promote the work of IDB departments and divisions, and work with departments to channel resources to develop their innovation projects in the natural capital space. In addition, the Lab will serve as a hub to centralize environmental sustainability knowledge and draw on relevant divisions expertise to provide advisory services on natural capital and environmental subjects.
  - 2.4 The achievement of the Sustainable Development Goals (SDG) will only happen if the diversity of actors involved in advancing an innovation agenda learn to partner with each other. Government, academia, private sector, entrepreneurs, and civil society cannot solve problems alone.
  - 2.5 The Natural Capital Lab prioritizes multi-stakeholder partnerships. It is working with funding partners, IDBG departments, governments of the region, and key external partners such as the Convention on Biological Diversity and the World Economic Forum, and others to develop a set of knowledge products, cutting edge projects with a high-risk tolerance, and convenings to help set the regional and international agenda on how to treat nature as an asset, and not a cost, in the run-up to the Biodiversity Conference of the Parties (COP-15) of 2020 and beyond.
  - 2.6 The Lab is based on the successful experience of the Bank's *Special Program for Biodiversity and Ecosystem Services* (BIO) and the *Multi-donor Fund for Biodiversity and Ecosystem Services* (MBD). This program was illustrative of the IDB's comparative advantage in mainstreaming natural capital in productive sectors and the value added of providing technical assistance to support loan operations as well as leverage new ones. It also draws on the innovative projects and models developed in the IDB Lab's agenda on Leveraging Natural Capital since 2011, where cutting-edge financial models were tested. By bringing these innovations together at the level of CSD and working across the entire IDBG, the Natural Capital Lab seeks to mainstream and scale up biodiversity and natural capital initiatives.
  - 2.7 The challenge is that although it represents only 16% of the planet's land, Latin America and the Caribbean holds 40% of the world's biological diversity, contains seven of the world's biodiversity hotspots, six of the 17 megadiverse countries, 11 of the 14 terrestrial biomes, and the 2nd largest reef system worldwide. More than 30% of the earth's available freshwater and almost 50% of the world's tropical forests are found in Latin America and the Caribbean (LAC). However, natural resources are under threat. A recent study by the World Wildlife Fund showed that South and Central America have lost 89% of their populations of vertebrates. Global Forest Watch data shows that four of the top 10 countries for tropical tree cover loss in 2017 are from Latin America. Mangrove deforestation rates are three to five times higher than terrestrial forests. In oceans, 90% of fish stocks are either fully fished or over-fished, and plastic pollution has been detected in all major marine environments. Chemical and air pollution is advancing, with the World Health Organization estimating that 90% of the world's population lives with toxic air.

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<sup>2</sup> At the 2018 One Planet Summit President Macron of France announced the French Government's commitment to become the founding partner of the Natural Capital Lab, with a €24 million contribution. In addition, the Natural Capital Lab has mobilized approximately US\$18M from the Government of the United Kingdom for Blue Carbon and biodiversity projects to be deployed over the coming years as approved by the IDB Board in GN-2949.

- 2.8 McKinsey estimates that US\$300-US\$400 billion is needed each year to preserve and restore ecosystems, but projects receive just US\$52 billion, mostly from public and philanthropic sources. This shortfall can be partially addressed by facilitating private investment in conservation and restoration projects and fostering private innovation in sustainability solutions. It can also be addressed by helping all actors –the public sector, corporates, entrepreneurs, and civil society– quantify the value of natural capital in economic terms. As countries seek to fulfill their commitments under the Convention on Biological Diversity, the Paris Climate Accord, and SDG 14 and 15, the sustainable use of natural capital will become vitally important to the achievement of these commitments, national development strategies, and local livelihoods. This is a major opportunity to catalyze innovative ways to efficiently and sustainably put LAC's natural capital ecosystem services at the service of the region.
- 2.9 Many challenges remain, in the public sector, natural capital and biodiversity responsibilities are split among many actors including ministries of environment, national parks services, forest commissions, ministries of agriculture, water commissions, tourism secretariats, and ministries of housing. Ministries of finance, which are responsible for funding programs and subsidies that may impact natural capital, and which have financial expertise that can help structure innovative mechanisms to unlock the value of natural capital and can leverage private finance to supplement public funds, are generally not directly involved in the conversation. There is a pressing need for the mainstreaming of natural capital and biodiversity within governments to: (i) make the economic case for the natural resources as an asset; (ii) assist governments on the legal and regulatory frameworks needed to spur investment; and (iii) provide examples of successful financial models and projects that can be replicated or scaled<sup>3</sup>.
- 2.10 In the private sector, challenges are spread on two fronts: (i) providing incentives, regulations, and models for actors who are harming natural capital or who do not incorporate natural capital in their business decisions; and (ii) supporting innovators in the private sector that have begun to experiment with new financial and business models to conserve, value, price, and trade natural capital that enhance and protect the underlying natural assets.
- 2.11 This operation is consistent with the Update to the Institutional Strategy 2010-2020 (AB-3008) and is aligned with the objective of providing adequate knowledge and innovation ecosystems, particularly in developing policies that facilitate the use of technology to sustainably seize the Region's natural resource endowment, as a means to remedy the challenge of low productivity and innovation. It is also aligned with the cross-cutting theme of climate change and environmental sustainability, as it gives special attention to solutions that promote environmental sustainability and development concurrently. Additionally, this TC will support the goal of enhancing the IDB's strategic relevance by strengthening its catalytic role, its relevance to countries and its focus on multi-sectorality by leveraging external funds and working across departments to deploy knowledge and develop new solutions.
- 2.12 The project is consistent with the objective of the Development program for Sustainability as it: (i) contributes to expand the knowledge base on climate change mitigation and adaptation geared toward leveraging climate investment; and (ii) promotes opportunities for LAC agricultural sector players to improve transitions toward sustainable agriculture. It is consistent with the program's focus areas of strengthening institutional capacity on environmental

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<sup>3</sup> These can include, for example, the use of nature-based solutions for green infrastructure, especially with regard to the preservation, conservation, and restoration of reefs, mangroves, and other coastal ecosystems to reduce vulnerability to natural disasters.

sustainability and disaster prevention, supporting technological innovations, reforms and market access initiatives, and complementing global and bilateral climate funds.

- 2.13 This operation will support the Bank's Corporate Results Framework (CRF), as it directly supports the indicators related to knowledge and dissemination. While this knowledge TC may do so only indirectly, all future Natural Capital Lab projects developed with the knowledge from this TC will directly support indicator 11 of the Country Development Results Indicators from the CRF: "Beneficiaries of improved management and sustainable use of natural capital", among others.<sup>4</sup>

### III. Description of Activities/Components and Budget

- 3.1 This TC is planned to support identification and development of financing models and applications of methodological and technological tools to value and protect the region's natural capital.
- 3.2 Component 1 will be focused on research and development of new financial and methodological models and instruments to promote sustainable investments in natural capital. Component 2 will support technological tools to generate high quality knowledge required for measuring and monitoring of natural capital in the region, filling the information and knowledge gap required to increase engagement of public and private partners. Component 3 will be focused on transferring the knowledge generated by Components 1 and 2 to multi-stakeholder groups in the region while fostering new alliances and partnerships to promote the mainstreaming of natural capital into different economic and social sectors.
- 3.3 **Component 1. Research and development of new financial models and instruments (US\$300,000).** Funds will be used for individual studies to: (i) generate knowledge on proposed natural capital solutions; (ii) support project preparation to deploy Natural Capital Lab resources; (iii) test and incubate new financial, methodological, and business models; and (iv) carry out studies on specific issues in natural capital trading and finance. Activities will include: (i) studies and work to develop new financial instruments to be tested by the Natural Capital Lab; (ii) development of investment plans or feasibility studies for innovative finance instruments for testing by the Lab; and (iii) the creation of methodologies and tools to value specific natural capital assets or develop specific solutions.<sup>5</sup> These knowledge products will not be academic exercises, they will be used in applied cases to open new areas of work with clients, prove new concepts, or provide initial diagnosis of a problem.<sup>6</sup> Because this TC supports, in part, the start-up and identification of highest value areas of intervention in this thematic area, the specific studies, investment plans, and methodologies to be completed will be developed in response to identified needs, goals, and requests of IDB clients with the input of IDB Country Offices and the relevant sectors, as the Natural Capital Lab begins to prioritize cases for work.
- 3.4 Studies will remain the intellectual property of the IDBG but may be licensed to clients for use.

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<sup>4</sup> Other indicators supported: (i) "Proportion of terrestrial and marine areas protected"; and (ii) "Global Innovation Index (LAC Average)", both from the Regional Context Indicators of the CRF.

<sup>5</sup> These tools will build upon methodologies such as TEEB (the Economics of Ecosystems and Biodiversity), the IDB integrated Economic-Environmental Modelling Framework, and others.

<sup>6</sup> For example, the Natural Capital Lab has demand from clients to assist in the development of master plans for innovative finance for national parks combining traditional sources of funding (user fees, tourism) with new untested payment for ecosystem service models, and more experimental bonds or equity offerings. Funds could be used to support the modeling and conceptualization of this new financing scheme. Similarly, demand has been noted for assistance in modeling public/private insurance products wherein natural assets are insured as components of resilience.

- 3.5 **Component 2. Fostering high quality knowledge through technological innovations (US\$275,000).** The economic valuation of natural capital and its use in planning of projects requires precise data. The Lab will work together with the Information and Technology (ITE), and the Knowledge, Innovation and Communications (KIC) Departments, and high-tech partners to address the demand for high quality knowledge in the structuring of natural capital within the IDBG. The activities under this component include working with the Environmental Systems Research Institute (ESRI) and other partners to integrate the latest technology of Web Geographic Information Systems (WebGIS) into CSD operations and projects, creation of a web geoportal that aggregates existing geospatial data from IDBG and external sources, and the piloting of access to this geoportal for clients. The use of WebGIS technology will provide CSD staff with a vehicle to innovate in new ways of analysis, planning, reporting, storytelling, and monitoring while making the mainstreaming of natural capital into operations more efficient and effective.
- 3.6 The use of WebGIS will enable the creation and storage of spatial data on natural capital in a geoplatform allowing the IDBG to reuse this information in other projects, optimizing Bank resources, and allowing the exploration of new dimensions and relationships through the geospatial analysis and integration of multisectoral data. This will serve as a vehicle to: (i) illuminate new inter-relationships between existing Bank datasets and the natural environment; (ii) develop new models and business; (iii) decrease financing risk; and (iv) provide spatial information that will assist our clients in their needs and decision-making processes.
- 3.7 Mainstreaming the use of WebGIS at CSD will be achieved through the following products: (i) a diagnostic of needs and associated development of a GIS pilot for CSD (co-managed with ITE and KIC); (ii) the implementation of the data collection systems required for the pilot; and (iii) courses and technical support to CSD staff to provide easy access to GIS tools. The webtool will be available to IDBG staff and consultants, and the information collected and created in the tool will be available to clients through a web portal developed in the initiative in partnership with KIC and ITE. In addition, a dissemination pilot will be selected based on available data, ongoing work, country needs, and emerging opportunities. This dissemination activity will use the new tool to showcase the power and capacity of geotechnologies in assisting decision making based on natural capital investment.
- 3.8 The contract for the diagnostic of needs and development of the pilot will be sole sourced to ESRI, under the justification that it represents continuation of previous work. ESRI has existing contracts with ITE to provide geospatial services and software licenses to the IDB, and its services are integrated into many IDB tools and applications.
- 3.9 **Component 3. Knowledge generation and dissemination to promote natural capital dialogue and strategic partnerships (US\$180,000).** The knowledge and models generated by the Lab in Components 1 and 2 and by other departments of the IDBG in their regular work, will be disseminated to public and private sector partners through events, publications, and alliances with networks of partners. Activities will include: (i) hosting a regional event with the Convention on Biological Diversity and finance ministers from the region to discuss the integration of natural capital into planning; (ii) the development of training products for governments and the private sector; (iii) organization and participation in events to share knowledge and build networks on natural capital in the region; (iv) the formulation of potential contributions to knowledge products developed by IDB partners relevant to the region; and (v) participation in network

events, as well as in the design of individual knowledge products prepared with partners to disseminate results.

- 3.10 In addition, this TC will support project management and operational activities including: (i) hiring a full-time consultant to support the management and coordination of the Natural Capital Lab operations; and (ii) travel and logistic expenses necessary for the proper management of the Lab. The consultant will provide input to the conceptualization and management of the knowledge products created in this TC, and will travel to gather input, data, and assist in the coordination of knowledge and research in countries.

**Indicative Budget (US\$)<sup>7</sup>**

<b>Component</b>	<b>IDB/Fund</b>	<b>Counterpart</b>	<b>Total</b>
1. Research and development of new financial models and instruments	300,000	0	300,000
2. Fostering high quality knowledge through technological innovations	275,000	0	275,000
3. Knowledge generation and dissemination to promote natural capital dialogue and strategic partnerships	180,000	0	180,000
Project management and operational support	220,000	0	220,000
<b>Total</b>	<b>975,000</b>	<b>0</b>	<b>975,000</b>

#### **IV. Executing Agency and Execution Structure**

- 4.1 The operation will be executed by CSD/CSD through the Natural Capital Lab platform and is classified as Research and Dissemination.
- 4.2 The Sector Specialist responsible for the Natural Capital Lab will be responsible for the execution of this TC, in coordination with the Natural Capital Lab Working Group. This working group made up of IDBG staff from IDB Invest, IDB Lab, the Environment, Rural Development and Disaster Risk Management Division (RND), the Climate Change Division (CCS), and CSD, will meet regularly to coordinate and align the work of the Lab with the IDBG's priorities and programming. Other departments may join on an ad hoc basis.
- 4.3 Given the nature of this operation and the cutting-edge orientation of the deliverables to be developed, the IDB will act as the executing agency. Its regional coverage will require to manage and foster possible synergies and complementarities with Bank operations and research programs. CSD/CSD will coordinate with other departments and divisions and establish partnerships with academia, private sector actors, and governments to achieve these goals. Given that the Natural Capital Lab within CSD is raising funds from donors for natural capital initiatives, it may co-finance some activities with these funding sources, as appropriate.
- 4.4 As the executing agency, the IDB will follow its procurement policies and guidelines related to hiring processes: (i) individual consultants will be hired in accordance with the guidelines set out in policy AM-650; (ii) consulting firms of an intellectual nature only will be hired in accordance with the "Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work" (GN-2765-1) and its related Operational Guidelines (OP-1155-4); and (iii) logistics and other related services in accordance with the "IDB Corporate Procurement Policy" (GN-2303-20).
- 4.5 No formal evaluation will be undertaken, and monitoring will occur based on the

<sup>7</sup> The largest portion of this component on project management (US\$150,000) will be used to hire a consultant to identify demand, generate and link knowledge to potential operation, and identify partners for knowledge exchange. According to the procurement plan US\$70,000 are allocated for travel and logistics costs. Travel costs for staff members is estimated to be up to US\$30,000 for the transfer or knowledge generated within this TC and the Natural Capital Lab to the Bank clients and partners. The remaining amount (US\$50,000) will be used to cover travel costs for consultants. This will not substitute administrative budget for regular supervision travel (GN-2470-2).

documentation generated. Once the TC is completed, the project team will prepare a report with the lessons learned.

## **V. Major Issues**

- 5.1 The main risks to the operation are that there are delays in receiving the funding from committed donors (like the Government of France) for operations to be deployed in the future, and the knowledge developed in this TC does not immediately contribute to the development of pipeline related to these funding sources. However, there is funding secured from the UK for Blue Carbon projects and there are potential projects with the Global Environment Facility (GEF) in the design phase that are relevant for the team if the funding from committed donors is delayed. In addition, these TC activities are relevant for the region's clients even in the absence of the committed co-financing being immediately available, as the countries of the region prepare for the Biodiversity COP-15 in 2020.
- 5.2 Issues regarding the use of natural capital should pay careful attention to the distribution of benefits. Indeed, one of the core purposes of the Natural Capital Lab is to seek a more defined and equitable valuation and distribution of the benefits of natural capital flows to all stakeholders, particularly local communities. Thus, the activities conducted under this TC will carefully consider any risk or issues linked to indigenous communities and will observe the obligations to consult and to seek consent from these communities whenever required.
- 5.3 In addition, it is expected that the activities under this TC will generate opportunities to materialize activities that improve the livelihoods of indigenous communities while ensuring the conservation of biological diversity in a manner consistent with their interests and believes.
- 5.4 The development and implementation of the activities for this TC requires the involvement of a significant number of entities from the public and private sectors, so coordination and stakeholder engagement difficulties could arise. To mitigate this risk, the project team will work closely with IDB's sectors and country offices as well as IDB Invest to make sure proper coordination is undertaken. One mitigation mechanism will be the governance mechanism of the Natural Capital Lab –as a Lab for the IDBG it counts on an advisory committee of sector specialists from RND with technical knowledge, but also will structure a regular meeting of technical focal points from across the IDBG to develop a community of practice around issues of natural capital to coordinate programming, messaging, and events.

## **VI. Exceptions to Bank Policy**

- 6.1 There are no exceptions to the Bank policies regarding this operation.

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

- 7.1 Per the Environment and Safeguards Compliance Policy of the Bank (OP-703), the operation has been classified as Category "C", therefore no environmental assessment studies or consultations are required (see the [Safeguards Screening Form](#) and the [Safeguards Policy Filter](#))

## **VIII. Required Annexes**

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