TC Document

I. Basic Information for TC

▪ Country/Region:	Regional
▪ TC Name:	Water Funds: A Conservation/Climate Resilient Model for Stressed Watersheds in Latin America and the Caribbean
▪ TC Number:	RG-T3177
▪ Team Leader/Members:	German Sturzenegger, Team Leader (INE/WSA); Manuela Velasquez, Raúl Muñoz, David Wilk, Mauro Nalesso, Larissa Trejo and Yolanda Galaz (INE/WSA); Napoleao Dequech Neto (CSD/CSD); and Cristina Celeste-Marzo (LEG/SGO)
▪ Taxonomy:	Client Support
▪ Beneficiary:	Argentina (Mendoza), Brazil (Curitiba), Chile (Santiago), Colombia (Cali) and Guatemala (Ciudad de Guatemala)
▪ Executing Agency and contact name	The Nature Conservancy
▪ Donors providing funding:	Global Environment Facility (FMM)
▪ IDB Funding Requested:	US$1,826,484
▪ Local counterpart funding, if any:	US$200,000 (in kind and in cash)
▪ Parallel Financing:	US$200,000[1]
▪ Disbursement period:	42 months (execution period: 36 months)
▪ Required start date:	October, 2018
▪ Types of consultants:	Consulting firms and individual consultants
▪ Prepared by Unit:	INE/WSA
▪ Unit of Disbursement Responsibility:	INE/INE
▪ TC Included in Country Strategy (y/n):	N/A
▪ TC included in CPD (y/n):	N/A
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Climate Change and Environmental Sustainability

II. Objectives and Justification of the TC

2.1 Healthy watersheds provide vital natural infrastructure for water supply systems that serve cities around the world. They collect, store and filter water and provide benefits for biodiversity conservation, climate change adaptation and mitigation, food security, and human health and well-being. Today, 1.7 billion people living in the world's largest cities depend on water flowing from source watersheds located, in some cases, hundreds of kilometers away. Forty percent of urban watershed areas have high to moderate levels of degradation, with severe impacts on water security. This degradation increases nonpoint source pollutants, such as sediment and nutrients from agriculture and other sources, which find their way into water sources, raising the cost of water treatment for municipal and industrial users. Loss of natural vegetation and land degradation also change water flow patterns and lead to unreliable water supplies for both upstream and downstream users.

2.2 In Latin American and the Caribbean (LAC), many drinking water sources are severely degraded. Changes in land use and hydrological variability have caused serious

[1] Parallel financing refers to the financial contribution of project RG-T2751.

degradation in water-related ecosystems such as wetlands and forest streams, which store and reduce runoff, recharge aquifers, digest organic waste, and halt erosion. Without this green infrastructure, private companies, water utilities and other large downstream users face significant treatment costs, as the quality and availability of water supply, and hence the costs of treating and distributing it, depend heavily on the quality of these water-related ecosystems. By 2025, 70% of LAC's population is expected to live in water-stressed areas. Delivering clean and reliable water may be the single largest challenge that our growing cities face. Investing in watershed conservation through nature-based solutions that increase water quality and quantity is a cost-effective strategy for guaranteeing water security to millions of people in LAC.

2.3 A recent TNC study[2] identified LAC cities whose water supplies are at risk from climate change and development pressures. Approximately one in four cities could substantially improve water security by investing in climate-resilient management and restoration of green infrastructure –natural habitats and ecosystems that provide water regulation and processing services complementary to grey infrastructure– in the watersheds from which they draw their water supplies. Green infrastructure serves as a mechanism for Ecosystem-Based Adaptation (EBA), which provides adaptation benefits to land owners and water consumers. However, the cost of watershed conservation has been almost universally neglected in water pricing, and has not been valued against water treatment costs, new water infrastructure or climate hazard protection projects.

2.4 Despite numerous efforts to improve watershed management, few programs provide legal and financial mechanisms to allocate resources for water source conservation and climate protection. On the one hand, protected areas, which in many cases were originally created to shelter water sources, frequently lack financial support for conservation activities. In Colombia, for example, 50% of the population receives water from public protected areas, but market and institutional failures prevent these areas from getting the necessary financial funds to be soundly managed. On the other hand, upstream private and communal landowners, whose lands provide hydrologic, environmental and climate services, are typically not compensated by downstream users. In most cases, there is no mechanism or policy that compensates farmers who improve land practices, that sets aside private areas for conservation or that improves the management of public protected areas.

2.5 The development of innovative funding instruments that combine public, private and international resources is critical. There is an urgent need to create financial and institutional mechanisms that offer downstream users the incentives to proactively engage in conservation and climate adaptation practices in upstream catchment areas. For those reasons, The Nature Conservancy (TNC), FEMSA Foundation, the Global Environment Facility (GEF) and the Inter-American Development Bank (IDB), launched in 2011 the Latin America Water Funds Partnership to create and strengthen Water Funds (WFs) across LAC. A WF is a financial and governance mechanism that promotes public and private sector participation for watershed conservation (see structure of a WF). This mechanism offers opportunities to advance sustainable watershed management and urban water security. Conservation projects can be grouped in four categories: (i) payment for environmental services, including

[2] Report, An opportunity for water security in 25 cities in Latin America, developed with data from the study: McDonald, R. I. y D. Shemie. Blueprint de Agua Urbana: Mapeo de soluciones de conservación para el desafío mundial del agua. 2014, The Nature Conservancy: Washington, D. C.

watershed management and biodiversity conservation; (ii) water resources management as part of sustainable land use programs; (iii) conservation projects to protect the natural habitats where these services originate; and (iv) climate adaptation measures to mitigate impacts on water resources. These broad categories include activities such as the creation of protected areas, forestation and reforestation, riparian restoration, helping landowners switch to conservation/climate-friendly practices, and supporting community-driven conservation initiatives, among others.

2.6 Forty WFs initiatives are underway in the region, 23 of which are formally created and operating in Brazil, Mexico, Peru, Ecuador, Guatemala, Colombia, Costa Rica and the Dominican Republic. There are nearly 80 million people who could potentially benefit from watershed conservation projects implemented through these WFs. The total area to be conserved by these 23 funds is more than 200,000 hectares. In the last five years, these funds have been able to leverage over US$150 million for conservation investments from a variety of public and private sources.

2.7 Ten of these 23 WFs were financed through a US$5 million grant provided by the GEF through the IDB and executed by TNC (GRT/CF-12631-RG). Implementation finalized in 2016 and supported the establishment of 10 WFs in five countries: Brazil, Colombia, Dominican Republic, Mexico and Peru. Several learnings can be drawn from this previous GEF project: (i) WF's must engage water utilities, guaranteeing that water conservation practices are mainstreamed in the utilities' business model and their sustainability objectives; (ii) WF's must promote policy change and an enabling regulatory environment to unlock public and private funding for land/water conservation activities (new tariff systems, new public funding mechanisms, payment for environmental services schemes or other public-private instruments); (iii) WFs must put in place strong monitoring mechanisms to quantify results of land/water conservation activities; and (iv) WFs must develop conservation plans that define specific objectives and strategies to achieve them, differentiating short, medium and long-term objectives. These plans should foster a pipeline of green infrastructure projects, aligning themselves with Bank priorities and respond to climate challenges faced by the watersheds.

2.8 The Bank approved on December 12th, 2016, the technical cooperation RG-T2751, which aims to consolidate and expand the WF model in eight countries (Brazil, Colombia, Dominican Republic, Mexico, Peru, Chile, Argentina and Jamaica). Particularlly, the RG-T2751 finances products that will serve as an input for the execution of the present TC, specifically studies, plans, monitoring systems and knowledge products in Argentina (Mendoza) and Chile (Santiago). Based on the lessons learned and best practices identified in the previous operation, a variety of technical assistance, studies, monitoring and pilot projects are required to create a Water Fund. Thus, this TC also complements the operation RG-T3184 approved in March 15th, 2018. The objective is to complement the necessary resources to make these WFs sustainable.The four specific objectives of this TC are: (i) to improve and consolidate existing funds; (ii) to expand the WF model to additional urban watersheds affected by water stress; (iii) to promote policy change and an enabling regulatory environment (national and/or local) to unlock public and private funding for land/water conservation activities; and (iv) to systematize the model's methodology through knowledge, capacity building and dissemination tools and platforms. With these resources, five WFs will be created/strengthened to protect upper watershed biodiversity and improve the water security of 14 million people in five major LAC cities by connecting water users in urban areas with upper watershed land stewards.

2.9 The prioritization of WFs to be benefited with this TC will be based on the following criteria: (i) key areas of biodiversity; (ii) populations with the most benefit from watershed conservation (e.g. more than 200,000 people); (iii) urban watersheds facing critical climatic conditions and climate adaptation challenges; (iv) opportunities for public-private partnerships to address environmental service issues, possibly mobilizing climate finance; (v) compatibility with the Bank's country strategy and with the relevant national policies and strategies; (vi) existence of a TNC Country Office; and (vii) level of engagement of local authorities with the environmental sustainability/climate resilience agenda, specially of the local water operator(s). Five WFs, which comply with these criteria, have been pre-identified: Three WFs will be newly created: Curitiba (Brazil), Mendoza (Argentina), and Santiago (Chile), and two will be strengthened and consolidated, Cali (Colombia), and Ciudad de Guatemala (Guatemala).

2.10 This TC is consistent with the Update to the Institutional Strategy 2010-2020 (AB-3008) and aligned with the cross-cutting theme of climate change and environmental sustainability, through the creation and strengthening of the WFs that would implement climate adaptation measures to mitigate impacts on water resources and promote water security in urban areas. Also, the TC is aligned with the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth (GN-2710-5), as it will finance green infrastructure solutions as an alternative and/or complement to gray infrastructure projects. Additionally, this TC is consistent with the fourth dimension of success of the Water and Sanitation Sector Framework Document (GN-2781-8) that highlights the importance at of promoting water security in LAC by creating and strengthening long-term mechanisms for watershed conservation such as the WFs.

III. Description of activities/components and budget

3.1 This TC will support the creation or strengthening of five WFs across LAC. These funds will serve as financing mechanisms for the conservation of key watersheds in five cities. The TC is structured as follows:

3.2 **Component 1 – Water Fund's Design and Monitoring.** Through this component, technical studies will be financed. Namely: (i) ecosystem services modelling and hydrological analysis with climate vulnerability and impact analysis; (ii) legal/institutional studies; (iii) monitoring design and baseline studies; and (iv) socio-economic studies. Based on this information, a set of Plans (Strategic Plan, Financial Plan, Communication Plan and Monitoring Plan) will be developed. WF creation will include formalizing and officially launching WFs, setting up an initial governance scheme and operating structure, and designing demonstrative conservation projects. Monitoring systems will be put in place to showcase the benefits of green infrastructure (e.g. avoided water risks, reduced treatment costs for water operators). Additionally, conservation activities will be implemented on the field to serve as example of the type of interventions WFs will put in place.

3.3 **Component 2 – Water Fund's Technical Assistance.** This component will finance WFs' technical secretariat and will provide technical support, through TNC staff, for the design, creation and implementation of the Funds. TNC will ensure all WFs have quality control systems in place. Additionally, TNC scientists will provide technical support and training to implement demonstrative projects and monitoring protocols to measure the impacts of the WFs.

3.4 **Component 3 – Training, Knowledge and Capacity Building.** This component will finance: (i) IWLEARN Experience Note will be developed. This work consists of consolidating the information on lessons learned and good practices for disseminate accomplishments and successful experiences, contributing to the network of GEF projects in international waters (IWLEARN); (ii) the design of a hydroelectric watershed conservation pilot project;[3] and (iii) the development of a business case to quantify and communicate the benefits of investing in green infrastructure through WFs. This component will also finance the dissemination of these tools and associated communication materials.

3.5 The total cost of the TC is US$2,226,484 (see Detailed Budget), US$1,826,484 will be funded by the Global Environment Facility (GEF), and TNC will finance US$75,000 in cash and US$125,000 in kind resources (for example, man/hour). The remaining US$200,000 will be finance through a parallel financing.[4]

Indicative Budget (US$)

Component	Description	IDB Funding (GEF)	Counterpart Funding	Parallel Financing	Total Funding
Component 1	Water Fund's Design & Monitoring	712,350	75,000	120,000	907,350
Component 2	Water Fund's Technical Assistance	628,090	0	0	628,090
Component 3	Training, Knowledge & Capacity Building	270,000	0	80,000	350,000
Project Management & Evaluation		216,044	125,000	0	341,044
TOTAL		**1,826,484**	**200,000**	**200,000**	**2,226,484**

3.6 Additionally, it is estimated that the project would leverage co-financing resources for approximately US$8.1 million from public entities (Parana State Government in Brazil and from the Germany Federal Ministry for the Environment), the private sector (FEMSA Foundation) and from other partners (e.g. Guatemala Water Fund).

IV. Executing agency and execution structure

4.1 **Execution Arrangements:** The Executing Agency (EA) of the TC will be The Nature Conservancy (TNC), the leading conservation non-profit organization in the world. TNC was created 64 years ago, works in 69 countries, and has more than 600 scientists. TNC has more than 15 years working with WFs. TNC executed the operation GRT/CF-12631-RG before the estimated time and accomplished all expected outcomes and outputs.

4.2 The administrative and technical supervision of the proposed operation will be under the responsibility of INE/WSA. The project team will be responsible for the preparation and submission to the donor of all execution reports. If at the end of project execution, the project is closed with a positive uncommitted and unspent balance, the project

[3] Given that roughly 60% of cloud forests in LAC have been lost due to factors such as agriculture and forest conversion to pasture, linking hydropower generation to cloud forest restoration provides a potentially meaningful and scalable restoration platform.

[4] Parallel financing refers to the financial contribution of project RG-T2751.

team will be responsible for requesting ORP/GCM to transfer the unspent balance to the donor.

4.3 For execution purposes, the IDB and TNC will sign a non-reimbursable technical cooperation agreement. IDB's disbursement unit will be Department of Infrastructure and Energy Sector (INE/INE). TNC will be responsible for the administration of the resources provided by the Bank, in accordance to Bank policies and procedures. TNC will execute the technical aspects of the TC through its Latin America Region Operating Unit. A Regional Project Manager will be designated. The finance unit of TNC Worldwide Office (TNC HQ) will have the overall responsibility for the financial administration of the funds and the financial systems, processes and training. At the national level, TNC's Country Offices will be responsible for the technical monitoring of the activities, in coordination with the Regional Project Manager. TNC shall not initiate project activities in each country before the Bank informs that a non-objection letter has been issued by the liaison entity of the corresponding country.

4.4 During the execution period of the Project, TNC will submit to the Bank, by no later than April 30 of every year, an annual report of the Project, describing: (i) the progress of the project during the preceding year; and (ii) the financial report of the contribution as of December 31st of the preceding year. Within six months after the completion of the Project, TNC will submit to the Bank: (i) a Final Project Report, including an overview of the expenditures incurred for the implementation of the project and the funds allocated to such expenditures (financial report); and (ii) an operation and progress report of the project (narrative report).

4.5 **Evaluations:** The project will include the following evaluations: (i) a mid-term evaluation within ninety (90) days from the mid-term point of the project disbursement period; and (ii) a final evaluation, upon execution of ninety percent (90%) of the resources of the Contribution or completion of sixty (60) months of the execution period of the project, whichever occurs first, that will include, among others: the degree of attainment of project objectives and results in relation to plans and the reasons for any variances; the organization established for project execution; implementation and acceptance of procedures and systems developed through the project; sustainability of the activities funded under the project; lessons learned that could be applied to future projects; and the final level of financial execution of the project according to the budget.

4.6 **Procurement:** TNC shall apply the "Policies for the Procurement of Goods and Works financed by the IDB" (GN-2349-9) and the "Policies for the Selection and Contracting Consultants financed by the IDB" (GN-2350-9), in particular Appendix 4 of such Policies for private sector entities, for procuring and contracting. A procurement plan will be prepared by TNC and updated according to the project needs. The procurement plan must be approved by the Bank before initiating any procurement process.

4.7 **Financial Management Aspects:** Financial Management matters will be conducted according to the Financial Management Guidelines for IDB-financed projects (OP-273-6). The disbursement period for the project is 42 months after the signature of the agreement. Preliminary, disbursements made by the Bank to TNC will be biannual and based on actual expenses incurred by TNC and reported to the Bank. Disbursements will be made from the Bank to TNC's HQ. TNC will submit the Final Audited Financial Statements of the project 120 days after the date of the last disbursement. The Financial Statements will be audited by external auditors acceptable to the Bank.

V. Major issues

5.1 A potential risk would be the weak performance in the implementation of the WFs. In order to mitigate these risks, feasibility studies, and Conservation and Monitoring Plans will be developed for each WF to establish the selection, development, implementation and monitoring of the conservation projects financed for such WF. Throughout project execution, TNC will also provide the required guidance, and develop templates for project management and reporting.

5.2 Another possible risk is the lack of availability of co-financing resources, particularly government authorities that very often are incapable to contribute resources to this type of mechanisms and large private sector water users that very often are unwilling to pay for the water services upon which they depend. To mitigate this risk, TNC conducted a preliminary assessment of potential donor sources and key stakeholders before selecting the beneficiary watersheds. Additionally, TNC will continue identifying relevant partners to leverage more resources and will design and implement a comprehensive communications and awareness campaign to encourage all users to contribute to the WFs.

VI. Exceptions to Bank policy

6.1 This TC does no present any exceptions to Bank policies.

VII. Environmental and Social Strategy

7.1 In accordance with the guidelines of the Policy Environment and Safeguards Compliance Policy (OP-703) the proposed operation was classified as category “C” (see Environmental Filters). No potential negative environmental and/or social impacts of the TC were identified and therefore no mitigation strategy is required to address any impact.

Required Annexes:

- Annex I: Request from the client
- Annex II: Results Matrix
- Annex III: Terms of Reference
- Annex IV: Procurement Plan

WATER FUNDS: A CONSERVATION/CLIMATE RESILIENT MODEL FOR STRESSED WATERSHEDS IN LATIN AMERICA AND THE CARIBBEAN

RG-T3177

CERTIFICATION

I hereby certify that this operation was approved for financing under the **GLOBAL ENVIRONMENT FACILITY (FMM)**, through a communication dated August 20, 2018 and signed by Brady Martin (ORP/GCM). Also, I certify that resources from said fund are available for up to **US$1,826,484** 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 firmado)*** 08/29/2018

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

Date