

## TC ABSTRACT

### I. Basic Project Data

▪ Country/Region:	REGIONAL/IDB
▪ TC Name:	Water Security, Circular Economy and Wastewater-to-Resource (WW2R) in Latin America and the Caribbean: Analytical Research and Case Study Implementation
▪ TC Number:	RG-T3477
▪ Team Leader/Members:	MUNOZ CASTILLO, RAUL (INE/WSA) Team Leader; GONZALEZ MEDINA, FRANCISCO DE ASIS (INE/WSA); LOPEZ, LILIANA M. (INE/WSA); CARCASI, GIULIA (INE/WSA)
▪ Taxonomy:	Research and Dissemination
▪ Number and name of operation supported by the TC:	N/A
▪ Date of TC Abstract:	30 Apr 2019
▪ Beneficiary:	Countries of Latin America and the Caribbean
▪ Executing Agency:	INTER-AMERICAN DEVELOPMENT BANK
▪ IDB funding requested:	\$ 400,000.00
▪ Local counterpart funding:	\$ 0.00
▪ Disbursement period:	18 months
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	Water & Sanitation
▪ Unit of Disbursement Responsibility:	Infrastructure and Energy Sector
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Social inclusion and equality; Productivity and innovation; Institutional capacity and rule of law; Environmental sustainability

### II. Objective and Justification

- 2.1 The primary objective of this analytical work is to promote a paradigm shift in the LAC region's approach to circular economy in water, and specifically in wastewater through resource recovery. Wastewater-to-resource (WW2R) increases the economic benefits of treatment systems and provides additional benefits that can be captured by the served population (energy, nutrients, bio-solids). This work will promote the prioritization and design of investments in the context of a circular economy in which wastewater is considered as an asset and a resource to be utilized rather than a liability, while promoting at the same time integrated, regional watershed planning. This project will consider basins which are trans-boundary as a plus to be considered as pilot under the scope of work.
- 2.2 With approximately one third of the global water resources and precipitations (Mejía, 2014), Latin America and the Caribbean (LAC) is the continent with the greatest availability of water per capita. However, the availability of the resource is highly seasonal and unevenly distributed between countries and regions, generating areas with high levels of water stress. In addition, the growing demand for water derived from the population increase, the decrease in water availability caused by the effects of climate change, and the competition between different water uses place additional pressures on the availability of the resource. In addition to availability challenges, another critical aspect is water quality. In the LAC region, the main source of water pollution originates from the lack of wastewater treatment. The environmental impact

caused by the discharge of these waters threatens the natural ecosystems, and negatively affect the health of the inhabitants with direct and indirect exposure to these waters.

### III. Description of Activities and Outputs

- 3.1 This TC will finance the following components: Component 1: Review of existing experiences and baseline assessment. Component 2: Innovative models for wastewater planning, financing and regulation, and Component 3: Knowledge Dissemination, Advocacy and Capacity Building.
- 3.2 **Component 1: Review of Existing Experiences and Baseline Assessment.** Identify the best practices present in the region in terms of integrating wastewater management in the city's natural resources, urban and economic cycle and to capture the best innovations around the world that could be applicable to the region.
- 3.3 **Component 2: Component 2: Innovative models for wastewater planning, financing and regulation.** This component will focus on developing and operationalizing alternative approaches to promote a paradigm shift on: Basin Planning, Infrastructure Investment and Wastewater Management Approach.
- 3.4 **Component 3: Component 3: Knowledge dissemination, advocacy and capacity building.** Dissemination and capacity building processes related to the activities of the previous components. The activities financed include conducting stakeholder consultations, disseminating outputs and sharing knowledge, developing messages and products to reach global audiences, and providing capacity building support to client countries.

### IV. Budget

Indicative Budget (in US\$)		
Activity/Component	IDB/Fund Funding	Total Funding
Component 1: Review of Existing Experiences and Baseline Assessment	\$ 50,000.00	\$ 50,000.00
Component 2: Innovative models for wastewater planning, financing and regulation	\$ 300,000.00	\$ 300,000.00
Component 3: Knowledge dissemination, advocacy and capacity building	\$ 50,000.00	\$ 50,000.00

### V. Executing Agency and Execution Structure

- 5.1 This TC will be executed by the Bank. It will be implemented by the IDB's INE/WSA Division. The Bank will carry out the selection and hiring of the consulting services necessary for this TC in accordance with applicable Bank procedures and policies. INE/WSA will be responsible for implementing and monitoring the project.
- 5.2 According to Annex 10 of GN-2629-1, the Bank will execute this TC since the team could not identify an institution in the Region with the necessary technical, operational or institutional capacity to duly and timely execute this project given the multi-sectoral nature of the activities and components. Monitoring will be based on the documentation generated. No formal evaluation will be undertaken, but an end-of project report will be prepared by the team. This report will summarize the execution, the results obtained, as well as the lessons learned for future projects of this nature.

### VI. Project Risks and Issues

- 6.1 Institutional capacity and readiness to engage in an inter-sectoral digital solution exercise: This risk will be mitigated through swift promotion of dialogue and application of mechanisms for active involvement of public sector specialists and authorities, leveraging existing relationships between Bank Sector Departments, Bank

Country Departments and LAC Governments, as well as VPS and VPC expertise. Sustainability: This knowledge generated by the activities of this TC will be systematized and will create a methodology to support replicability in the region. Internal Coordination Risk: In order to mitigate this risk, the team leader will coordinate with VPS, VPC and other IDBG areas, as necessary.

## **VII. Environmental and Social Classification**

- 7.1 The components financed by this TC will not have negative environmental and social impacts. Therefore, the category of environmental and social classification is "C", in accordance with the Bank's Environmental Policy (see [SSF](#) and [SPF](#)).