**Technical Cooperation Document**

1. **Basic Information for TC**

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| * Country/Region: | REGIONAL |
| * TC Name: | Facing the Water Security Challenge: Developing Water Security and Drought Management Plans for LAC Countries |
| * TC Number: | RG-T3476 |
| * Team Leader/Members: | Munoz Castillo, Raul (INE/WSA) Team Leader; Basani, Marcello (INE/WSA); Bravo Velasquez, Julianyth (INE/WSA); Carcasci, Giulia (INE/WSA); Esquivel Gallegos, Maricarmen (CSD/CCS); Gonzalez Medina, Francisco De Asis (INE/WSA); Grunwaldt, Alfred Hans (CSD/CCS); Lopez, Liliana M. (INE/WSA); Lutz, Liza M. (LEG/SGO); Machado, Kleber B. (INE/WSA); Manjarres, Jose Francisco (INE/WSA); Nalesso, Mauro (INE/WSA); Negret Garrido, Cesar Andres (LEG/SGO); Paredes, Juan Roberto (INE/ENE); Valdes Conroy, Hector (CSD/RND) |
| * Taxonomy: | Research and Dissemination |
| * Operation Supported by the TC: | N/A |
| * Date of TC Abstract authorization: | 03 Jul 2019. |
| * Beneficiary: | IDB's borrowing member countries |
| * Executing Agency and contact name: | Inter-American Development Bank |
| * Donors providing funding: | LAIF grant to CC and W&S(LAF); Multidonor AquaFund(MAF) |
| * IDB Funding Requested: | US$550,000.00 |
| * Local counterpart funding, if any: | US$0 |
| * Disbursement period (which includes Execution period): | 16 Months of disbursement period  15 Months of execution period |
| * Required start date: | November 10, 2019 |
| * Types of consultants: | Firms |
| * Prepared by Unit: | INE/WSA-Water & Sanitation |
| * Unit of Disbursement Responsibility: | INE-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; Environmental sustainability |

1. **Objectives and Justification of the TC**
   1. Water Security can be defined as the ability to ensure sustainable access to adequate quantities of quality water to sustain life, human well-being and socio-economic development; as well as to ensure protection against pollution and water-related disasters, and to conserve ecosystems in a climate of peace and political stability.
   2. Even though water is the most ubiquitous resource on earth, 97.5 percent is saline. Only 0.26 percent (90,000 Km3/year) of the global freshwater reserves are accessible for human consumption. About two thirds of it, known as green water, evaporates back into the atmosphere and hence is not directly available. The remaining fresh water, known as blue water, cannot be fully utilized due to spatial and temporal mismatch between availability and demand and frequently pollution and salinization due to agricultural and industrial use. This grim scenario is made worse by climate change as can be seen in the IDB Strategic Document on Water Security (SDWS) (2019), which is foreseen to be published in 2019. Furthermore, the urgency to move towards water security is reflected in different actions included in the Paris Agreement and the Sustainable Development Goals (SDGs), such as the SDG 6, “Clean Water and Sanitation”). The established goals hint at 2030 as turning point when water security would become harder to achieve if no action is taken right now.
   3. In line with the perceptions and findings underlying the Paris Agreement,   
      the Inter-American Development Bank (IDB) elaborated the SDWS, that identifies needs, issues and challenges to achieve water security in Latin America and the Caribbean. The document also identifies water security plans, as well as the legal and institutional guidelines to implement them, as crucial to allow countries to move towards water security. Finally, it includes an action plan that unpack actions that could, through guaranteeing water security, contribute strongly to achieving the IDB Group mission to promote sustainable development in the Region.
   4. Critical issues identified in the document include the need to: consider water resources and hence water security at the highest levels of decision making; modernize the legal and institutional framework to facilitate the implementation of the integrated water resources management and water security instruments; curb the pollution of water resources and recover the quality of polluted rivers (some contaminated watersheds are identified in the IDB document); develop instruments to finance the integrated water resources management and hence water security initiatives and; validate innovative solutions to water resources planning (Nexus), water quality enhancement and conservation (Nature Based Solutions (NBS), Green Infrastructure) and to create strategic water reserves.
   5. Within this broad range of needed actions, this project focuses on the development of a National Water Security Plan (NWSP), which the SDWS identifies as the initial step to be taken in the effort to achieve water security, and that addresses the above mentioned challenges of integrating water resources in the decision making level, modernizing the institutional framework, and developing instruments to finance the integrated water resources management. These plans can be agreed upon at different levels of the government and implemented based on adequate legal and institutional frameworks and funds. Only Panama has a NWSP, but according to the assessment presented in the SDWS, there is no legal basis for its implementation and as a result it is still on paper. However, in the meantime, other countries (Paraguay, Uruguay, Chile, Panama) have contacted the IDB’s Water and Sanitation Division, showing interest in NWSP or basin water security plans, which indicates that these other countries might follow. Hence the general objective of this TC is to prepare a NWSP for a country from the Region that includes: the adequate legal and institutional framework for its implementation, a thorough consultation within and among the national institutions with direct or indirect responsibilities regarding water resources management, the necessary written agreements, the necessary resources and instruments for its implementation.
   6. The European Union, through the Latin American Investment Facility (LAIF), approved the Program 'Promoting Adaptation to Climate Change and Integrated Water Resources Management in the Water and Sanitation Sector in Latin America under the Cooperation Fund for Water and Sanitation (FCAS)' submitted by the Spanish Agency for International Development Cooperation (AECID). The Program represents a grant of 15.300,000 € from the European Commission to the AECID where the IDB administers 12,862,000 €. Part of this TC is financed through these LAIF funds. The TC will contribute to the development of Component I of the LAIF focused on climate change adaptation, which specifically addresses water security and droughts through studies and analyses as basis for adaptation plans. AECID and IDB have signed an agreement for the use of these funds that has been included as annex of this document.
   7. Another part of the funds comes from AQUAFUND. The TC is aligned with the objectives of this instrument as it is focused on the development of products, platforms and technical studies that contribute to knowledge and innovation, as well as strengthening institutional capacities in the water and sanitation sector.
   8. The TC is consistent with the Update of the Institutional Strategy 2010-2020 and is aligned with the following development challenges:

* Social inclusion and equality: improving resilience to drought phenomena and water scarcity is crucial to ensure a clean and safe water supply, which is a decisive step to successfully reduce poverty.
* Productivity and innovation: improving the security and resilience of drinking water supply is necessary to sustain all social and economic activity.
  1. The TC is also aligned with the transversal aspects of:
* Climate change and sustainability: ensuring the availability of water resources and increasing resilience capacities in times of drought are part of climate change adaptation strategies.
* Institutions and the rule of law: this TC includes support for governance, institutions and regulatory frameworks for water security in the countries.
  1. The TC is aligned with the Water and Sanitation Sectoral Framework Document (GN-2781-8) approved by the IDB in December 2017, which reaffirms the necessity to strengthen the water security in the Region, to ensure sufficient quality water resources for all uses and reduce the risk of disasters, in consideration of the effects of climate change on hydroclimatic threats.
  2. In addition, the TC is aligned to the Country Strategies of Paraguay (GN-2958), in the priority areas of (i) public management and institutions; (ii) productive and resilient infrastructure; and (iii) human capital and living conditions; Uruguay (GN-2836), in the priority areas of (i) productivity and competitiveness; (ii) equity and social inclusion; and (iii) public sector management; Chile (GN-2946), in the priority areas of (i) improved quality of life for the population; and Panama (GN-2838), in the priority areas of (i) improving the delivery of basic services to the population living in poverty; and (ii) enhancing the logistics services, efficiency, and connectivity of the productive infrastructure.
  3. This TC will include one beneficiary country. Component 1 of this TC considers the final selection of the beneficiary country. The selection of the beneficiary country and the basin will be made considering the criteria described in Activity 1 of Component 1.

1. **Description of activities/components and budget**
   1. **Component 1: Assessment**. The objective of this component is to select the beneficiary country of the project, and gather the necessary information, to be compiled in a diagnostic report, to design and implement the other components of the project. To this end, this Component includes the following activities.
   2. *Activity 1. Identification of a country for the pilot plan*. The selection of a country to develop a NWSP adopting the concepts of water security included in the IDB SDWS will be made based on the following criteria: (i) watersheds with already moderate to severe water stress conditions and/or presence of users for competitive use of the water resource; (ii) lack or little management and integrated basin governance; and (iii) interest of the government entities benefited. A pilot framework for water security screening including indicators for the key dimensions of this concept (legal-institutional, data and technical capacity, environmental, climate change and socio-economic) will be developed and applied in the selected country. A preliminary selection of a pilot basin will be done during this phase.
   3. *Activity 2. Legal and institutional framework assessment*. This activity aims at performing a thorough assessment of the legal and institutional framework, through a diagnostic report. The aim is to evaluate its operational status and compatibility with the integrated water resources management concept and water security paradigm. An economic analysis to identify the opportunity costs for change will be performed.
   4. *Activity 3. Information gathering*. Information will be gathered at national and the pilot watershed level in the relevant areas such as: water quality, water quantity, water demand, meteorological data, climate change, droughts, floods, existing information system related to water resources and environmental management, implemented NBS, mapped ecosystem with potential for NBS, existing water reserves programs, national development programs and their relation to water availability etc. This information is crucial in calculating some of the elements that are at the base for developing a NWSP: a water balance that considers water demand and supply, water quality, the presence of competitive users for the water resources, and their variations based on climate change and future production scenarios, all of which can affect water security.
   5. *Activity 4. Information system*. This activity includes the evaluation of existing water resources and environmental information systems at national and watershed level and propose necessary changes to include the water security components.
   6. The product associated with this component is a comprehensive assessment of the water resources sector using the water security lens and anchored in the concept of Integrated Water Resources Management (IWRM) for the selected country.
   7. **Component II: Water Security and Drought Management Plans**. The objective of this component is to develop Water Security and Drought Management Plans at the national and watershed levels, and to provide the necessary tools to facilitate the replication of similar plans to other countries and basins. To this end, this component includes the following activities.
   8. *Activity 1: National Water Security Plan*. This activity includes the elaboration of a NWSP in direct communication with the country institutions and relevant stakeholders, based on the available and gathered biophysical information and considering the impacts on the National Development Agenda. It will be emphasized that there is no development without sustainable and secure sources of water.
   9. *Activity 2: Water security and drought management plan at the watershed level*. To facilitate the implementation of the mandates of the NWSP and to initiate the fundamental links between national and local planning, this activity includes the development of a pilot watershed water security and drought management plan that has interfaces with the integrated water resources management plan, water drought plan, flood control plan and water utilities masterplans adopting the water cycle as guidance. Some of the elements that the plan will analyze might include the inclusion of Nature Based Solutions for water quality control, and the establishment of strategic water reserves and the necessary studies to facilitate its implementation. A water balance for the selected watershed will be construed to study different climate, and socio-economic (water uses and demands) that could potentially affect future water security conditions at the watershed level, to inform the water security plan design. HydroBID as a modeling tool is proposed (when suitable for the scope of work and resolution needed) for the water balance modeling task.
   10. *Activity 3: Manuals and communication package*. A package will be prepared that includes a manual with the methodology to develop Water Security and Drought Management Plans, a communication plan at national and the watershed level to facilitate the development and implementation of the water security actions, and the terms of reference and guidelines for all relevant activities to promote the replication of the TC in other countries.
   11. *Activity 4*: Workshops. This activity will include workshops with key policy makers and relevant stakeholders coming from the selected country to provide a clear understanding of the current challenges and collect inputs and recommendations for the development of this project. A final workshop, with the presence of policy makers and relevant stakeholders, will be organized to present the project’s results and initiate the following phase of knowledge dissemination.
   12. The products associated with this component are a National Water Security Plan, a Water Security and Drought Management Plan at the watershed level, a manual and communication package, and the organization of workshops.
   13. 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.
   14. The TC supervision will be the responsibility of INE/WSA and there are no additional costs budgeted for this task. Nevertheless, the country will put together a team of specialists representing relevant institutions to act as the INE/WSA counterpart and support for the project supervision.
   15. INE/WSA will supervise the TC’s execution engaging in: (i) technical meetings or promoting workshops with the firm and the IDB (INE/WSA) team; (ii) analysis and evaluation of the submitted technical reports with the participation of the country technical team; and (iii) if needed, promoting workshops between relevant stakeholders, the IDB team and the firm to discuss results, methodologies adopted and help solve impediments encountered. By adopting this monitoring and evaluation approach, no financing is necessary for final evaluation reports or auditing of financial reports.
   16. This TC has a total cost of US$550,000 of which US$400,000 from the LAF - LAIF grant to CC and W&S, and US$150,000 from the MAF - Multidonor AquaFund.

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| **Indicative Budget (US$)** | | | | |
| **Component** | **Products** | **LAF Funding** | **MAF Funding** | **Total Funding** |
| 1  Assessment | * 1. Assessment | 80,000 | - | 80,000 |
| 2  Water Security and Drought Management Plans | 2.1 National Water Security Plan | 100,000 | - | 100,000 |
| 2.2 Watershed water security plan | - | 140,000 | 140,000 |
| 2.3 Watershed drought management plan | 180,000 | - | 180,000 |
| 2.4 Manuals and communication package | 40,000 | - | 40,000 |
| 2.5 Workshops | - | 10,000 | 10,000 |
| Total | | 400,000 | 150,000 | 550,000 |

1. **Executing agency and execution structure** 
   1. The executing agency of this TC will be IDB through the Water and Sanitation Division (INE/WSA). The agreement with the donor states that IDB will be the executing agency of the technical cooperation’s financed with LAIF resources. Other aspect that reinforces the role of the Bank as the executing agency is its experience and knowledge on this important and strategical issue for the region. This TC is a Research and Dissemination TC that aims to propose analytical lines of work for the Bank oriented to contribute to a sustainable management and use of the resource and to multisectoral planning of responses to extreme climatic events, facilitating the economic and social development of the Region. INE/WSA will be responsible for the administration, planning, control and supervision of the assigned financial resources, as well as all the activities related to the adequate preparation and programming of the operation.
   2. Following the donor’s agreement, it is necessary to maintain a close coordination with the Spanish Agency for International Development Cooperation (AECID) and its county offices (Technical Cooperation Offices -OTC) where singular actions related to the TC are carried out. This coordination must be extended to the Delegations of the European Union (DEU), which should be also informed in periodical basis about the follow up of the implementation and results related to the technical cooperation. The OTCs should join the IDB in the meetings held with the DEU.
   3. As per section 20.1 of the Donor Agreement[[1]](#footnote-2), the titularity of rights and the property of the products financed by this TC belong to the IDB and AECID jointly. The IDB and AECID may at their discretion exercise such rights autonomously and independently and without the need for reciprocal consultations or authorizations. However, when the products of the evaluations contain confidential information, the provisions of Article 10, paragraph 5 of the Resolution of Grant Agreement signed between the donor and the Bank shall apply.
   4. Concerning the visibility of the project, and including the management of publications, use of logos, and confidentiality, the IDB will ensure to comply with the obligations included in section 12 of the Donor agreement.
   5. The execution period will be 15 months and the disbursement period will be 16 months. For this TC, the contracting of a firm is foreseen. The activities to be executed are included in the Procurement Plan and will be contracted in accordance with Bank policies as follows: (a) AM-650 for Individual consultants; (b) GN-2765-1 and Guidelines OP-1155-4 for Consulting Firms for services of an intellectual nature and; (c) GN-2303-20 for logistics and other related services.
   6. Prior to the initiation of activities in the selected beneficiary country, the Team Leader will be responsible for obtaining a letter of non-objection from the liaison country office with the Bank.
   7. Monitoring and supervision of this TC will be carried out by the Bank’s technical team led by the TC Team Leader, through the preparation of the progress monitoring reports on a semiannual basis. No supervision costs are foreseen.
2. **Major issues** 
   1. Given that the countries showed interest in developing the NWSP and its correspondent at the watershed level, no significant risks have been identified that substantially affect the execution of the TC. Attention must be focused on the identification and inclusion, in the discussions that precedes and follows the development of the NWSP, of the relevant stakeholders. Relevant institutions should not be left out and the discussions should include the highest levels of decision making with an assertive call that no national development objective can be sustainably reached without sustainable and secure sources of water, especially in the context of climate change.
3. **Exceptions to Bank policy**
   1. There is no exception to IDB policies.
4. **Environmental and Social Strategy** 
   1. The components financed by this TC will not have negative environmental and social impacts, hence the category of environmental and social classification is "C", in accordance with the Bank's Environmental Safeguards Policy (OP-703), [(see filters).](https://idbg.sharepoint.com/teams/EZ-RG-TCP/RG-T3476/15%20LifeCycle%20Milestones/Safeguard%20Filters.pdf)

**Required Annexes:**

[Results Matrix - RG-T3476](https://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=EZSHARE-500835083-8)

[Terms of Reference - RG-T3476](https://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=EZSHARE-500835083-9)

[Procurement Plan - RG-T3476](https://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=EZSHARE-500835083-10)

1. Paragraph 20.1 of the Donor Agreement: “The ownership, titularity and industrial and intellectual property rights of the results of the Intervention, as well as the reports and other documents related (the “Products of the Intervention”), correspond to the IDB and AECID jointly”. [↑](#footnote-ref-2)