

Technical Cooperation (TC) Document

I. Basic Information for TC

▪ Country/Region:	REGIONAL
▪ TC Name:	Transboundary Cooperation for the Conservation, Sustainable Development and Integrated Management of the Upper Paraguay River Basin - Pantanal
▪ TC Number:	RG-T3732
▪ Team Leader/Members:	Munoz Castillo, Raul (INE/WSA) Team Leader; Denea Larissa, Trejo Carcamo (INE/WSA); Dipasquale, Irene Etelvina (INE/WSA); Grunwaldt, Alfred Hans (CSD/CCS); Lopez, Liliana M. (INE/WSA); Negret Garrido, Cesar Andres (LEG/SGO); Pabon Zamora, Luis Hernan (INE/WSA); Valdes Conroy, Hector (CSD/RND)
▪ Taxonomy:	Operational Support
▪ Operation Supported by the TC:	RG-T3641.
▪ Date of TC Abstract authorization:	.
▪ Beneficiary:	Ministry of Environment and Water-Bolivia, National Water Agency- Brazil and Ministry of Environment Paraguay
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	IADB/Global Environment Facility Fund(FMM)
▪ IDB Funding Requested ¹ :	US\$102,000.00
▪ Local counterpart funding, if any:	US\$98,000.00 (Cash)
▪ Disbursement period (which includes Execution period):	12 months (includes execution period)
▪ Required start date:	September 2020
▪ Types of consultants:	Individual consultants, firms, and service
▪ 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:	Economic integration; Institutional capacity and rule of law

II. Description of the Associated Operation

- 2.1 This Operational Support – Technical cooperation is associated to the GEF operation RG-T3641:Transboundary cooperation for the conservation, sustainable development, and integrated management of the Upper Paraguay River Basin - Pantanal. The main objective of the GEF operation is to promote water security through strengthening transboundary water governance, sustainable development,

¹ An additional \$98,000 (totaling \$200,000 of the PPG allocation) will be executed by UN Environment (previously UNEP).

balancing multiple use and promoting integrated management of the Pantanal-Upper Paraguay River Basin for the social and economic well-being of the population and for the conservation of the freshwater ecosystem, its services, its biodiversity and connectivity.

- 2.2 The GEF operation to be co-implemented between IADB and UNE will include the following components and activities:
- 2.3 **Component 1. Strengthening cooperation for integrated river basin management.** A proposal of alternatives for tri-national coordination of the basin. Proposed water management principles and targets (e.g. on water quality and quantity objectives) as input to the Strategic Action Plan (SAP). A proposed framework for improved management and protection of the aquatic ecosystem.
- 2.4 **Component 2. Consolidating and sharing knowledge, and developing a common understanding of the Pantanal-Upper Paraguay Basin.** A region wide Transboundary Diagnostic Analysis (TDA) complementing and building upon countries' experience and knowledge, further defining the La Plata basin diagnostic. Basin wide ecosystem modelling including inter alia environmental flow modeling, water balance, climate change scenarios. Documented established and functional basin wide information exchange sharing (including agreed and signed data sharing protocols) and an integrated hydro-climatic reporting system including inter-country capacity development. A strategic plan for a basin wide water monitoring network (include hydromet, water quality, sediment and groundwater relevant networks prioritizing at least 15 sites).
- 2.5 **Component 3. Towards trinational planning for sustainable management of the basin.** A region wide SAP approved by ministries or same level government authorities including water agencies. A proposal for land management actions to reduce threats (non-point source pollution and sediment loads). A proposal for achieving environmental flow regimes in up to two critical sub-basins. A sustainable financing strategy (including a Project Preparation Facility, Public-Private Partnerships, an alliance of investors, etc.) to support implementation of the SAP and key priority activities. Up to six integrated municipal water and sanitation plans.
- 2.6 **Component 4. On-the-ground interventions promoting integrated water resources management and sustainable finance.** Sustainable land and water management practices implemented in critical sites (e.g. Taquari sub-basin, Tucavaca sub-basin, etc.) to reduce stresses, including sediment and pollution loads in at least 600 Ha. Water/food/energy nexus interventions for enhanced water and land security considering competing water uses in at least one location. Best Practices for efficient irrigation tested in 50 Ha with optimization of water demand targets towards an efficient water use allocation system. Aquifer recharge protection measures tested in at least one critical area relying on groundwater resources including mapping of resource use restriction zones. Testing innovative approaches for water use permit for sewage discharge. Novel economic and financial instruments to support water and land management implemented in at least one site: such as payment for ecosystem services; efficient water use.
- 2.7 **Component 5. Awareness building, stakeholder involvement.** A stakeholder engagement and communication plan including awareness building products (such as

audiovisuals, education package, etc.). A training program on sustainable water and land management for utilities, management authorities, water users, civil society, amongst others. Gender equity, women empowerment and mainstreaming Plan and implementation. Documented IW: LEARN support including knowledge sharing, experience notes, twinning program, and dialogues and, IW conferences participation (1% of GEF grant).

- 2.8 The Full-size GEF operation (RG-T3641), for a total of \$8,190,000, will be funded under the GEF International Waters focal area. IDB will execute \$4,200,000 of Project Grant Funding (PGF). The additional \$3,990,000 will be executed by UN Environment (previously UNEP). The beneficiary countries include three IDB-member countries. The PIF Proposal was approved and included in the GEF Work Program, with a notification from GEFSEC to IDB (May 4th, 2020), which included notification of the approval of the PPG Grant. The GEF project proposal will be prepared during the third and fourth quarter 2020 and first quarter 2021 and will be submitted for IDB's Board approval after the final submission for GEF Chief Executive Officer (CEO) Endorsement, estimated for Q2, 2021.

III. Objectives and Justification of the TC

- 3.1 The proposed objective is to support the preparation of the GEF proposal, by providing inputs for detailed design and validation of the components, their indicators and targets, co-financing², risk assessment, institutional arrangements for execution, detailed budget and other supporting documentation. The proposal will show the project's contribution to the GEF Focal Areas and to national sustainable development objectives and expected global environmental benefits.
- 3.2 This TC will support the definition and sizing of the following activities to be financed under the Full-size GEF operation:
- 3.3 **Transboundary Ecosystem modelling** will include environmental flow modeling, water balance, climate change scenarios, amongst others. Improved trinational ecosystem modelling including water-climate development scenarios is needed to facilitate coordinated management and decision-making. The product will be a model with tests run on different key parameters to be determined during the PPG phase. The modeling results will support the TDA formulation. The activity will also involve knowledge exchange and capacity development between the countries to enhance national sustainability of the outputs. In this regard, targeted workshops will be conducted to help develop capacity within the region to provide information for coordinated management as well as implement priority actions identified in the basin wide SAP (Output 3.1). These workshops may be individually designed or designed in conjunction with interventions associated with Components 3 & 4.
- 3.4 **A proposal for environmental/ecological flows in at least one critical sub-basins.** Ultimately, to preserve the ecosystem function of the wetlands certain minimum flows are required at key periods for the major sub-basins in the region. As a step towards

² Co-financing refers to other financial resources that will be directed to same area of intervention or to the specific project activities proposed under the program.

this, studies will be conducted to determine environmental/ecological flows in sub-basins and a methodology for their establishment including the matching regulatory process will be formulated for broader application within the basin. Ecological flow studies will provide guidelines for preserving aquatic ecosystems and coordinating sustainability with respect to hydropower development.

- 3.5 **A sustainable financing strategy** (including a project preparation facility, Public-Private Partnerships, an alliance of investors, amongst others) to support implementation of the basin wide SAP. The financial strategy include a portfolio of potential blended financing options and prioritized bankable multisector investments tentatively estimated at US\$500 million based on priorities outlined in the SAP. The strategic finance plan will be initiated in tandem with the TDA and engage prospective donors and the private sector in aligning investment plans with objectives and goals of the SAP. The financial strategy will outline robust prioritized investment program and support governments in aligning the forthcoming needed investments within national investment plans. The financial strategy will also incorporate existing financing instruments, such as IDB Invest and the IDB Capital Lab for smaller scale investments. Aligning investors into SAP development will help ensure SAP financing.
- 3.6 **A series of integrated municipal water and sanitation plans (6 plans):** Surface water contamination from municipal discharges has large ranging (transboundary) impacts when considering the cumulative effect across the basin. This has particularly large effects in wetlands where nutrient loading can upset assimilation, particularly with nitrogen. To showcase opportunities and develop capacity to address this, integrated municipal water and sanitation plans will be developed in three municipalities across the three countries (which will be determined in the PPG) and provide the opportunity for technology and knowledge exchange between the countries.
- 3.7 **Water/food/energy nexus interventions for enhanced water and land security considering competing water uses.** This activity will respond to addressing the management of multiple uses of water in specific sub-basins. Balancing different water uses is critical at the international level to avoid water use conflicts and ensure sustainable use of water. This “nexus approach” to integrated water use and sanitation planning will be applied at least one site to be determined during PPG.
- 3.8 **Best Practices for efficient irrigation** tested in 50 Ha with optimization of water demand targets towards an efficient water use allocation system. Innovative administrative methods will also be used to assess water allocation in several key sites to be determined in the PPG phase.
- 3.9 **Aquifer recharge protection measures tested** in at least one critical area relying on groundwater resources including mapping of resource use restriction zones: most of the potable water consumed in the basin comes from groundwater sources, however, there is little to no knowledge of groundwater systems. Key to protecting groundwater sources is understanding threats and vulnerability, identifying areas through mapping, and identifying protection measures in related to those local threats. Vulnerability mapping and protection measures will be conducted in three areas to be chosen during the PPG phase.
- 3.10 **Testing innovative approaches for water use permits for sewage discharge.** One of the barriers to sustainable integrated water management is the lack of capacity and effective tools for management. This intervention will involve the identification and testing of innovative approaches for water use permits to sewage/wastewater

discharge e.g. testing the use of bio-indicators as a cost-effective way to monitor pollution discharge levels and set permit levels. The number of sites and their location chosen to test novel discharge permits will be determined during the PPG. Complimentary to discharge permits are water use restrictions. Innovative management methods will also be used to assess water use restrictions in several key sites and will be determined in the PPG phase.

- 3.11 **Novel economic and financial instruments to support water and land management.** One of the key barriers to sustainable resource use that has been identified is the lack of financial means and investments to implement actions. This intervention will test novel financing approaches implemented at the local level and adapted to the local situation in at least one site. These could include amongst others, payment for ecosystem services (ecosystem functions), or efficient water use incentives.
- 3.12 This TC is consistent with the IDB's Second Update to the Institutional Strategy (UIS) 2020-2023 (AB-3190-2) through the following pillars: i) **Institutional capacity and rule of law**, by strengthening the transboundary governance of the Pantanal, to allow the effective management of transboundary water resources; ii) **Climate change and environmental sustainability**, as it improves the water crisis prevention and management capacity of the world greatest wetland, the Pantanal which faces pressures that threaten to destabilize the ecosystem services that sustain the region's environment and social and economic development; and iii) **Economic integration**, by promoting a coordinated economic development planning process through a transboundary mechanism. This operation is also aligned with the IDB Group Strategy with Brazil 2019-2022 (document GN-2973), specifically the priority area of improving the business climate and narrowing gaps in sustainable infrastructure for enhanced competitiveness and the strategic objective "narrow infrastructure gaps". It also contributes with the Bank's Strategy of Bolivia 2016-2020 (GN-2843) with: (i) promoting innovation in research and development (R&D); (ii) reduction of vulnerability to natural disasters and CC; and (iii) improve the effectiveness of public management. It is also aligned with the Country Strategy of Paraguay 2019-2023 (GN 2958), under the strategic area "Productive and resilient infrastructure".

IV. Description of activities/components and budget

- 4.1 **Component 1. General planning, coordination, and logistics (US\$47.700):** this component finances project coordination at both the regional and country levels as follow:
- 4.2 **PPG Project Coordinator** (Strategic planning/management, GEF system/processes). the PPG Program Manager will be in charge of developing project documentations for GEF FSP CEO Endorsement, in line with GEF, IDB and UN-Environment requirements, including: (i) clear targets, activities, time schedule, responsibilities and deliverables; (ii) coordinate the rest of the PPG team, technical consultants and national experts; (iii) assemble technical packages and project documentation, and (iv) define the log frame/results framework, monitoring and evaluation of the project, supported by the necessary inputs and required management assistance. The Program Manager will be financed under the IDB-PPG and the UN Environment-PPG allocations.
- 4.3 **National Coordinators** Under the leadership of the PPG Project Coordinator, the national coordinators will: develop workplan and content outlines for national

consultation and baseline data collection and integrate national documentation/inputs; and coordinate validation process with counterparts and stakeholders. They support data gathering, facilitation, analyze and summarize country priorities; provide inputs for national baselines; assist and coordinate country dialogues and consultations; provide the synthesis and packaging of documentation for project proposal; and presentation and dissemination of objectives and project activities. The National Coordinators will be financed under the IDB-PPG and the UN Environment-PPG allocation.

- 4.4 **Component 2. Technical expertise in support of Project preparation (US\$41.100):** this component will finance the technical experts that will work with both IDB and national agencies staff to develop proposed work plan, and action plan (including cost estimates), for the execution of the activities under the Bank's responsibility. They will oversee developing Terms of References for the implementation and recommendations for each of the activities. The GEF project activities that are under responsibility of the IDB were gathered in three packages that will be assigned to the following 3 technical experts:
- 4.5 **Technical Expert 1.** Responsible for the following project activities: Transboundary Ecosystem modelling. A proposal for environmental/ecological flows in at least one critical sub-basins. Water/food/energy nexus interventions for enhanced water and land security considering competing water uses.
- 4.6 **Technical Expert 2.** Responsible for the following project activities: A series of integrated municipal water and sanitation plans (6 plans). Best Practices for efficient irrigation. Aquifer recharge protection measures tested. Testing innovative approaches for water use permits for sewage discharge.
- 4.7 **Technical Expert 3.** Responsible for the following project activities: A sustainable financing strategy. Novel economic and financial instruments to support water and land management (payment for ecosystem services or efficient water use incentives).
- 4.8 **Component 3. Dialogues, meetings/facilitation, travel, and supervision (US\$13.200)** this component will organize and conduct country dialogues and meetings to present and discuss progress and results of project preparation. This includes: (i) regional and sub-regional sessions with stakeholders to validate results of country baselines and conception/early proposals included in the project; (ii) selective meetings with stakeholders to discuss project concepts; and (iii) workshops to assist the development and validation of capacity building and knowledge development and dissemination packages to be submitted in the final package for GEF CEO endorsement. The dialogues, meetings and expert facilitation will be financed under the IDB-PPG allocation; travel will be financed under both, the IDB-PPG, and the UN Environment-PPG allocations.
- 4.9 The total cost and the amount available for the proposed TC is US\$102,000 financed with GEF resources from the Project Preparation Grant (PPG). Its corresponding funds have been approved by the GEF on the same date as the PIF and specified in GEF's Commitments to IADB from GEF Council approval to 18 month later, in GEF communication to IDB (May 4th, 2020).

Indicative Budget (US\$)

Component	Activity	Description	IDB PPG Funding	UN Environment PPG Funding	Total Funding
1. Planning and Coordination (IADB \$47,700; UNE \$60,000)	PPG Project Coordinator based in Brazil (6 months x \$8,000)	Consulting fees	---	48,000	48,000
	IDB Coordination - by WSA's Transboundary Waters Program	IDB TBW consultant	---	---	---
	GEF CEO endorsement specialist	Consulting fees	---	12,000	12,000
	National Coordinators for Bolivia, Brazil, and Paraguay (3ps x 6mo x \$2,650)	Consulting Fees	47,700	---	40,000
2. Technical expertise in support of Project preparation (IADB \$41,100; UNE \$20,000)	Technical Expert 1	Consulting Fees	13,500	---	12,000
	Technical Expert 2	Consulting Fees	18,000	---	12,000
	Technical Expert 3	Consulting Fees	9,600	---	12,000
	UN Env. Technical experts	Consulting Fees		20,000	20,000
3. Dialogues, meetings, travel, and supervision (IADB \$13,200; UNE \$18,000)	Country dialogues, meetings/ workshops, facilitation	Consulting Fees, Services and Travel	9,000	10,000	24,000
	Travel and supervision	Travel IDB Staff/ consultants **	4,200	8,000	20,000
TOTAL			102,000	98,000	200,000

* This allocation will be complemented with resources already mobilized under separate funding source for sub-regional coordination based in CME.

** Per Operational Policy for Technical Cooperation OP-400, TC resources may not supplement the budget of a Bank department or division for routine or customary activities. This TC will finance travel costs for Bank staff in accordance with GN-2470-2.

V. Executing agency and execution structure

- 5.1 This TC is classified as Operational Support. The IDB will be executing agency of this TC considering the following conditions: i) the beneficiary countries request (see Letter of Endorsement (LoE) in annexes); ii) this TC is supporting the preparation of the GEF project RG-T3461 of which the IDB's is the Implementing Agency; iii) the Bank's ability to ensure timely delivery of results in complex projects involving different countries, institutional jurisdictions, and stakeholders. In accordance with

Annex 10 of GN-2629, the IDB through INE/WSA will be the responsible of the project implementation and supervision.

- 5.2 A designated coordinator will coordinate the specialists-consultants work during the TC, including communication and dissemination in Spanish and English, respectively. The IDB shall not initiate project related travel in the beneficiary countries until a non-objection letter has been issued by the liaison entity of the corresponding country.
- 5.3 The Team leader, Raul Muñoz (raulmu@iadb.org), Water and Sanitation Division (INE/WSA) Sr. Sector Specialist in Headquarters as well as the IDB Specialists and consultants in the COFs will be responsible for execution and supervision of all the activities funded under this TC, according to the Results Framework and Procurement Plan.
- 5.4 **Monitoring arrangements.** The project team will report periodic progress towards the completion of all funded activities, based on technical reports and submissions by consultants (according to their TORs).
- 5.5 The TC procurement will follow Bank policies and will adhere to the TC procurement plan. Individual consultants will be contracted under the rules of the Bank's human resources policy (standards AM-650). Consulting firms will be contracted per the Bank's policies on the selection and contracting of consultants (GN-2765-1 and its operative guidelines OP-1155-4); the contracting of non-consulting services (e.g. seminars) will observe the Bank's Corporate Procurement Policies (GN-2303-20).

VI. Major issues

- 6.1 This operation poses very low risks, as it supports the preparation of GEF/Project backed with a solid PIF proposal approved by GEF, with Letters of Endorsement from 3 countries. The activities proposed are adequately programmed to be executed during the execution period which is 12 month following GEF's approval guidelines. One of the identified risks is a potential delay in execution originated from the COVID-19 pandemic; however, most of the TC activities can be carried out remotely with exception of field trips with stakeholders. This will be mitigated by coordinating with the Bank's Country Offices in Brazil, Bolivia and Paraguay, which will facilitate the mobilization of consultants and input gathering. Additionally, the coordination with UN-Environment will assure the delivery of products on-time for the submission of the Proposal for GEF CEO Endorsement, estimated for the first quarter of 2021.

VII. Exceptions to Bank policy

- 7.1 There are no exceptions to Bank policy.

VIII. Environmental and Social Strategy

- 8.1 In accordance with the Environmental and Social Compliance (OP-703) and the Safeguards Toolkit, this project is classified as category “C”. The activities financed through this operation will not have direct or indirect, social or environmental negative impacts. (See Environmental Filters [SPF](#) and [SSF](#)).

Required Annexes:

- [Request from the Client](#)
- [Result Matrix](#)
- [Terms of Reference](#)
- [Procurement Plan](#)