

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

REGIONAL

**TRANSBOUNDARY COOPERATION FOR THE CONSERVATION, SUSTAINABLE
DEVELOPMENT AND INTEGRATED MANAGEMENT OF THE PANTANAL -
UPPER PARAGUAY RIVER BASIN**

(RG-T3641)

TC DOCUMENT

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TC Document

I. Basic Information for TC

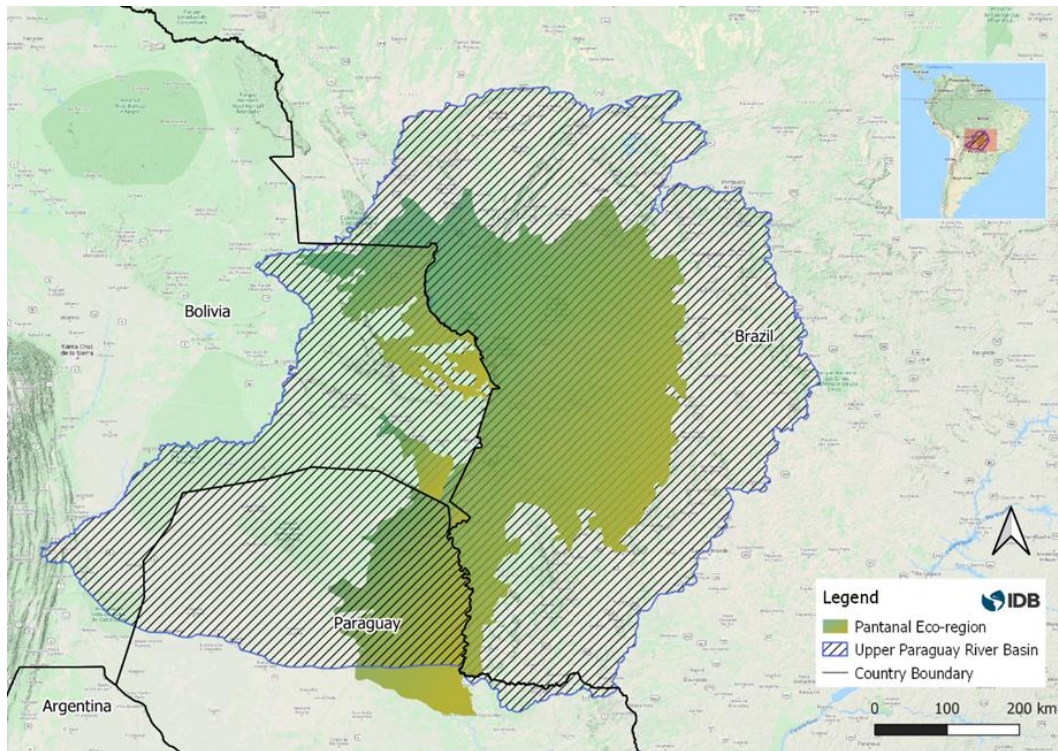
▪ Country/Region:	REGIONAL
▪ TC Name:	Transboundary Cooperation for the Conservation, Sustainable Development and Integrated Management of the Pantanal - Upper Paraguay River Basin
▪ TC Number:	RG-T3641
▪ Team Leader/Members:	Munoz Castillo, Raul (INE/WSA) Team Leader; Mendez Torrico, E. Gustavo (INE/WSA) Alternate Team Leader; Almeida Oleas, Natalia (LEG/SGO); Arguello, Marlene Zoraida (VPC/FMP); Berlanda Custodio Da Silva, Cleide (VPC/FMP); Cotacachi Velasquez, Nestor David (SCL/GDI); Dunbar, Gregory A (VPC/FMP); Escala, Victor H. (VPC/FMP); Grunwaldt, Alfred Hans (CSD/CCS); Guiza Ceron, Carlos Andres (INE/WSA); Langstroth, Robert Peter (VPS/ESG); Lopez, Liliana M. (INE/WSA); Manjarres, Jose Francisco (INE/WSA); Mecerreyes Espinosa, Cristina (INE/WSA); Paula Roberts (INE/WSA)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	
▪ Date of TC Abstract authorization:	
▪ Beneficiary:	Brazil, Bolivia, and Paraguay
▪ Executing Agency and contact name:	World Wildlife Fund Inc
▪ Donors providing funding:	IADB/Global Environment Facility Fund(FMM)
▪ IDB Funding Requested:	US\$4,200,000.00
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period (which includes Execution period):	48 months
▪ Required start date:	October 2022
▪ Types of consultants:	Individual consultants and consulting firms
▪ Prepared by Unit:	INE/WSA-Water & Sanitation
▪ Unit of Disbursement Responsibility:	INE/WSA-Water & Sanitation
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	Yes
▪ Alignment to the Update to the Institutional Strategy 2020-2024:	Social inclusion and equality; Productivity and innovation; Economic integration; Institutional capacity and rule of law; Environmental sustainability; Gender equality

II. Objective and Justification

- 2.1 The objective of this project is to promote water security through strengthening transboundary water governance, sustainable development, balancing multiple-use and promoting integrated management of the Pantanal-Upper Paraguay River Basin (UPBR) 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 UPRB at around 600,000 km² is shared between Bolivia, Brazil, and Paraguay, and has a variety of inter-connected and inter-dependent biomes. The heart of it is the plain area containing the Pantanal, the largest continuous flood plain in the world which is shared between the three countries with about 138,000 km² in Brazil, 15,000 km² in Bolivia, and 5,000 km² in Paraguay (see Figure 1). The UPRB hosts more than 4,700 animal and plant species, a number of Ramsar sites and legally protected areas, and

it has been declared a Natural World Heritage site by UNESCO. Furthermore, it is home to about eight million people, two million of whom reside in the Pantanal 70% reside in large urban centers (e.g., Corumbá, Cuiabá, Cáceres, Puerto Suárez, etc.). Agriculture and livestock are the region's main economic activities followed by forestry, mining, fishing, tourism, river transport, and trade.

Figure 1: Upper Paraguay River Basin - Pantanal¹



- 2.3 The Pantanal maintains the flow of the Paraguay River throughout the wet and dry seasons behaving as a regulating valve to attenuate ebbs and floods of the river downstream.² It acts as the upstream water reservoir of the La Plata Basin (LPB), filtering sediments created by agricultural practices in the higher ground of the Planalto. The slow and constant Pantanal runoff is key to avoid incidence of floods downstream of the Paraguay river and to provide enough flow for navigation.³ The Pantanal also offers a range of ecosystem services estimated to be between US\$160 and US\$347 billion.⁴ The most prominent is the buffering of hydrological changes (both annual flood pulse and multiyear cycles), storing large portions of flood water and lowering the hydrograph of the Paraguay River downstream; it is considered the “largest evaporation window in Central South America”. Constanza et al. (1997) estimated that the Brazilian Pantanal is a unique valuable watershed, with an annual

¹ Map produced by the IDB during PIF stage with official geographic data provided by the Viceministerio de Recursos Hídricos y Riego (Bolivia), Agência Nacional de Aguas (ANA- Brasil), Ministerio del Ambiente y Desarrollo Sostenible (Paraguay).

² Gottgens, J. F., Perry, J. E., Fortney, R. H., Meyer, J. E., Benedict, M., & Rood, B. E. (2006). The Paraguay-Paraná Hidrovía: Protecting the Pantanal with Lessons from the Past. *BioScience*, 51 (4), 301.

³ Marengo, J., Alves, L., & Torres, R. (2016). Regional climate change scenarios in the Brazilian Pantanal watershed. *Clim Res.*, 68, 201–213

⁴ Bedoya, Valentina. 2018. Exploring Ecosystem Services Provided By The Pantanal Wetland, South America. Wageningen University and Research and WWF.

per hectare value of US\$6,000. Some of the latest studies about ecosystem services estimated a value of more than US\$5 million per resident.⁵

- 2.4 The LPB faces problems that destabilize the ecosystem services that sustain the region's environment, social and economic development. According to the [LPB Transboundary Diagnostic Analysis \(TDA\)](#), land use change and unsustainable agricultural practices are threatening the loss of biodiversity throughout the region. Agriculture and livestock expansion exerts significant pressures on water resources, especially in the plateau region, with cattle ranching as major driver for deforestation. Land use changes contribute to an annual concentration of sediments of 500 mg/L, and an average erosion of 146 t/km² per year in tributaries of the Paraguay River. Along with sedimentation, pollutants from mining, such as open iron ore mines and mercury found in fish, are a major threat for the Pantanal, i.e., 85% of wastewater in the Brazilian headwaters is untreated.
- 2.5 As global temperatures rise, droughts and floods become frequent and intense, changes in precipitation patterns affect river flows and the viability of the entire ecosystem, altering the distribution of species, habitat viability and resilience. Climate Change (CC) affects water uses by shifting dynamic processes such as evaporation and saturation of the soil, increasing forest fires, among other threats. The Paraguayan Pantanal has the highest recurrence of forest fires⁶ impacting water supply, livestock, and local communities.
- 2.6 Finally, there are more than forty existing hydroelectric dams in the UPRB tributaries and over 101 planned to be built in the next years. Dams can cause significant changes in the hydrological regime by shifting the typical flood pulse to the Pantanal plain and by changing the flow of nutrients and water quality impacting aquatic ecosystems, sustainable fisheries, and tourism, amongst others.
- 2.7 To find ways to solve these problems, the Pantanal countries (Bolivia, Brazil, and Paraguay) must also overcome limitations, such as: (i) Weak transboundary governance coordination for dialogue and planning. Despite the region falling under the mandate of the Inter-governmental Coordination Committee (CIC) of the LPB, the region lacks a focused tri-lateral coordination, necessary as the likeliness of water conflicts of a transboundary nature increases with development growth; (ii) Limited technical, financial, institutional, and administrative capacity to adopt and implement integrated actions, even in areas where they may exist, for example, within National Basin Plans; (iii) Lack of coordinated economic development planning. There is a lack of experience in investment planning and mobilization of resources to address many of the priority issues; (iv) Lack of a basin wide monitoring system. While there is a significant monitoring network in Brazil, this is not the case in Bolivia and Paraguay because of limited resources; and (v) weak understanding/awareness of the importance of the Pantanal system. There is a limited appreciation of the ecosystem services provided by the Pantanal. Understanding can enhance political will at a regional, national, and state level to address current threats.
- 2.8 Aiming to start a formal coordination for the basin's transboundary management, at the 8th World Water Forum in Brasilia, in March 2018, the Environment Ministers from the three countries signed the [Declaration for the Conservation, Integrated and Sustainable Development of the Pantanal](#). The declaration commits to meet the

⁵ A.F. Seidl, A.S. Moraes, Global Valuation of Ecosystem Services: application to the Pantanal da Nhecolândia, Brazil. Ecological Economics, 2000.

⁶ Secretaría de Emergencia Nacional (2018). Atlas de Riesgo de Desastres de la República del Paraguay.

Sustainable Development Goals (SDG) and sets the ground to advance in collaborative efforts for joint transboundary management to promote water security and climate resilience in the Alto Paraguay Basin and the Pantanal wetland.

- 2.9 **The GEF Project.** Having the Trinational Declaration as reference to address the challenges and priorities described above, the Global Environment Facility (GEF) approved the preparation of a full-size [GEF Project](#).⁷ This project is comprised of five components: (i) Component I. Strengthening cooperation for integrated river basin management; (ii) Component II. Consolidating and sharing knowledge and developing a common understanding of the Pantanal-Upper Paraguay Basin; (iii) Component III. Towards trinational planning for sustainable management of the basin; (iv) Component IV. On-the-ground interventions promoting integrated water resources management and sustainable finance; and (v) Component V. Awareness building, stakeholder involvement. To implement this project, the GEF has designated the IDB and the United Nations Environment Programme (UNEP) as Implementing Agencies (IAs), with the IDB as the leading agency, assigning funds to each institution: (i) US\$4.2 million to the IDB to implement Components II, III, and IV; and (ii) US\$3.9 million to UNEP to implement Components I and V. The present TC Document includes the portion of the project to be implemented by the IDB.
- 2.10 Project activities contribute to the GEF-7 International Waters (IW) Strategy Objective 3, 3.6, and 3.7 (enhanced regional and national co-operation on shared freshwater surface and groundwater basins, investments in water, food, energy, and environmental security) by testing novel and innovative financial instruments. Based on the preliminary documents available on programming directions for the [GEF-8](#), it can be expected that the project will continue to be aligned with the objectives and targets of the IW Focal Area Objective 3 (Catalyzing Environmental and Transboundary Water Security). The project contributes SDG 6.5 call to implement integrated water resources management at all levels. The project is further designed to advance regional mechanisms, such as the La Plata Treaty (1969), and address key issues identified in both the LPB Strategic Action Plan (SAP) (2018) and the Brazil Pantanal SAP (2006).
- 2.11 **Strategic Alignment.** This TC is consistent with the Bank's Second Update to the Institutional Strategy 2020-2024 (AB-3190-2) and is aligned with the development challenges of: (i) *Social Inclusion and Equality* by promoting actions to reduce existing differences to achieve equity in the provision of services offered by the Pantanal and engaging with local communities and stakeholders to inform coordinated transboundary planning for water security; (ii) *Productivity and Innovation* by implementing pilot projects with environmentally sound approaches and technologies for replication; and (iii) *Economic Integration* by promoting a coordinated economic development planning process through a transboundary mechanism. The TC is also aligned with the cross-cutting areas of: (i) *Climate Change and Environmental Sustainability* by understanding the potential impacts associated with development scenarios and CC; (ii) *Institutional Capacity and Rule of Law* by strengthening the transboundary governance of the Pantanal to allow the effective management of transboundary water resources; and (iii) *Gender equality and diversity*, by contributing to closing gender gaps in access to and control over natural resources, improving women's participation and decision making and generating socio-economic benefits

⁷ Additionally, the GEF has also provided resources for the preparation of this project under a Project Preparation Grant (PPG), "Transboundary Cooperation for the Conservation, Sustainable Development and Integrated Management of the Upper Paraguay River Basin – Pantanal" ([ATN/FM-18209-RG](#)).

or services for women. The TC is also aligned with the 2020-2023 Corporate Results Framework (GN-2727-12), by contributing to the fulfillment of the indicator of integration agreements and supported regional cooperation initiatives, through the creation of a Transboundary Diagnostic Analysis (TDA), and a Strategic Action Programme (SAP). In addition, the TC is aligned with the IDB's Country Strategies with the three riparian countries (Brazil, Bolivia, and Paraguay), as well as with the IDB's Vision 2025 through its contribution to SDG's progress (SDG 6), by mobilizing financing from the GEF and co-financing organizations, to strengthen transboundary water institutions to harness science, technology, and innovation.

III. Description of Activities/Components and Budget

- 3.1 As described in paragraph 2.9, UNEP will fund and implement Components I and V. Component I will finance transboundary cooperation mechanisms such as the elaboration of the TDA and the SAP and one pilot for land management actions. Component V will finance activities guiding the relationship with stakeholders in the field to increase awareness and participation, including the stakeholder engagement, and communication plans and the gender equity, women empowerment, and mainstreaming plans. UNEP will also contribute to certain activities under Components II, III and IV.⁸
- 3.2 The IDB will fund the technical scientific studies supporting the TDA and the sustainable financing strategy for SAP implementation. It will also lead the innovative aspects of the project by testing novel on-the-ground interventions to develop cost-effective approaches and demonstrate the benefits of water-stress reduction, under Components II, III and IV of the [CEO Endorsement Document](#).⁹ The following paragraphs provide the detail of the specific activities to be funded and implemented by the IDB:
- 3.3 **Component II: Consolidating and sharing knowledge and developing a common understanding of the Pantanal-Upper Paraguay Basin (US\$500,000).** Joint fact-finding and exchange of information between the three countries will facilitate improved understanding and consensus regarding key transboundary issues. The component will emphasize greater understanding of the potential impacts associated with development scenarios and CC. This will be supported through the development of a transboundary ecosystem modelling including environmental flow modeling, water balance and CC scenarios needed to facilitate, and support coordinated management and decision-making for shared water resources and land-use planning. Under this component, IDB will support the Basin wide ecosystem modelling including inter alia environmental flow modeling, water balance and climate change scenarios.
- 3.4 **Component III: Towards trinational planning for sustainable management of the basin (US\$1,121,010).** This component will support the formulation of a SAP signed by ministries, as a proposal for basin wide land management actions to reduce threats, for enhanced countries commitment to sustain equitable cooperation mechanisms and to support priority reforms and investments, specifically under this component, the IDB funding will contribute to develop a proposal for environmental/ecological flows for critical sub-basins, a sustainable financing strategy and six integrated municipal water and sanitation plans. This component will support: (i) a proposal for achieving environmental flow regimes in at least two critical sub-basins; (ii) a sustainable

⁸ For more information on the activities financed by UNEP see [OEL#III](#).

⁹ Only activities to be financed with IDB funds are described under this section. Please refer to the CEO Endorsement Document – Annex V and the Project Document (ProDoc) – Annex VII for further details about the GEF Project.

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; and (iii) a series of integrated municipal water and sanitation plans.

- 3.5 **Component IV: On-the-ground interventions promoting integrated water resources management and sustainable finance (US\$2,198,260).** Sustained cooperation on integrated management of water resources in the Pantanal-Upper Paraguay Basin will be strengthened by showcasing innovative technologies and sound approaches that fit the local socio-ecological systems through piloting innovative approaches including financial mechanisms for replication resulting in demonstrated on the ground benefits in stress reduction and providing elements for replication and sustaining SAP delivery. The proposed pilot interventions funded by the IDB include: (i) water/food/energy nexus interventions for enhanced water and land security considering competing water uses; (ii) best practices for efficient irrigation; (iii) aquifer recharge protection measures; (iv) the testing of innovative approaches for water use permits for sewage discharge; and (v) a novel economic and financial instrument to support water and land management. These pilots will enhance food production, water infrastructure, sustainable extractive resources (forestry), and tourism and fisheries, by testing new financial methods such as capital funds (debt and/or equity), fixed income products (i.e., thematic bonds) and project preparation facilities (over the counter debt for water infrastructure). The results of this component are: (i) Water/food/energy nexus interventions for enhanced water and land security considering competing water uses in at least one (1) location; (ii) best practices for efficient irrigation tested in 50 ha with optimization of water demand targets towards an efficient water-use allocation system; (iii) aquifer recharge protection measures tested in at least one critical areas relying on groundwater resources including mapping of resource use restriction zones; (iv) four pilots testing innovative approaches for water use permit for sewage discharge and; (v) Novel economic and financial instruments to support water and land management implemented in at least one site (i.e. payment for ecosystem services; efficient water use, etc.).
- 3.6 **Project Management (US\$200,000).** It includes a portion of the cost of the Midterm and Final review contractual services, the audit foreseen under the Project Management Component and operating costs (such as communications and rental and maintenance of premises) and supplies, commodities, and materials, such as data management during the project.¹⁰
- 3.7 **Monitoring and Evaluation (US\$180,730).** It includes a portion of the cost of the Midterm and Final review contractual services, the costs for staff travel on official business, the travel of meeting participants and other related meeting costs associated with the monitoring and evaluation of the project.
- 3.8 **Expected results.** The main outcomes ¹¹ for this project, considering both implementing agencies' activities, are: (i) improved understanding of water security and regional cooperation for sustainable use and integrated management; (ii)

¹⁰ The overhead costs of this Project will fund operative costs, a percentage within the recurrent expenditure guidelines in OP-311, given that: (i) are part of the project, that is, these costs finance the operational and administrative needs required by the execution of the activities; (ii) are necessary, to the extent that guarantee the administrative and operating conditions for project execution; (iii) are productive, because they allow for strategic investments that result in the achievement of project activities and results; and (iv) are sustainable, since these costs are planned and anticipated for the project's execution period and guarantee a successful operation closure.

¹¹ The Results Matrix ([Annex II](#)) of this TC Document shows only the outputs in charge of the IDB. [Annex VI](#) shows the outputs for the whole GEF project, including IDB and UNEP activities.

improved understanding and consensus between the three countries regarding the key transboundary issues and the drivers of change in the region including enhanced capacity for joint monitoring and information exchange; (iii) Enhanced countries commitment to sustain joint, equitable cooperation actions and to support priority reforms and investments towards improving water security and preserving hydro-ecological services provided by the system; (iv) Demonstrated on the ground benefits of and stress reduction from environmentally sound and, cost effective approaches and technologies for replication in the SAP; and (v) Improved visibility of the Pantanal as a system of global significance, increased awareness and participation among stakeholders for integrated management and, strengthened gender equality and women empowerment to facilitate adoption of the SAP agenda.

- 3.9 The estimated budget for this TC is **US\$4,200,000** from non-reimbursable GEF funds. An additional US\$3,990,000 in GEF resources will complement this project (see ¶2.9) as parallel finance to be implemented by UNEP for a total budget of US\$8,190,000. The following table shows the distribution of funds per component.

Table I.1 - Indicative Budget (in US\$)

Activity/Component	IDB/GEF Funding	Parallel Financing UNEP/GEF	Total Funding
Component I. Strengthening cooperation for integrated river basin management	0.00	481,000	481,000
Component II. Consolidating and sharing knowledge, and developing a common understanding of the Pantanal-Upper Paraguay Basin	500,000	1,331,000	1,831,000
Component III. Towards trilateral planning for sustainable management of the basin	1,121,010	810,990	1,932,000
Component IV. On-the-ground interventions promoting integrated water resources management and sustainable finance	2,198,260	652,740	2,851,000
Component V. Awareness building, stakeholder involvement	0.00	300,000	300,000
Project Management and Audit	200,000	190,000	390,000
Monitoring and Evaluation	180,730	224,270	405,000
Total	4,200,000	3,990,000	8,190,000*

* An itemized budget table can be found as [Annex E](#) in the [CEO endorsement document](#).

- 3.10 **Resources mobilization:** Recurring expenditures and mobilized investments were identified by each government using the [GEF Co-financing guidelines](#) with IDB and UNEP technical support to ensure compliance. Countries identified in kind co-financing and public investment mobilized by funding source for the project's implementation period and aligned with project's outcomes and outputs. Staff time and institutional support was identified for each country (BO, BR, PY). Public investment mobilized originated mainly from projects in the area of the UPRB and the Pantanal related to land and water management, environmental sustainability , water security and watershed planning and management, hydrological studies data and information monitoring, sanitation and water infrastructure, strengthening governance and institutional capacity for water resources management, agricultural productivity and ecosystem management and protection, sustainable development, among others (refer to Table C in the [CEO Endorsement Document](#)). The total estimated co-financing resources to be mobilized by the project are around US\$130,142,879.

IV. Executing Agency and Execution Structure

- 4.1 The project will be implemented jointly by the IDB and UNEP to provide oversight and compliance with the GEF policies and procedures. The activities to be funded respectively by the IDB and UNEP are expected to be executed by the World Wildlife Fund Inc. (WWF) through its regional offices in Bolivia and Paraguay, and through an agreement with WWF-Brazil. WWF has been selected through a competitive selection process based on its experience as one of the world's largest conservation organizations present in 100 countries with approximately five million members worldwide, and with more than 20 years of experience in the Pantanal, with a portfolio of projects in the UPRB region of over US\$18 million, including the improvement of water resources management in the transboundary context of the UPRB and its associated biomes.
- 4.2 During the project preparation a due diligence of WWF's executing capacity has been carried out. The fiduciary project team has verified that, WWF applies the highest standards for project design and implementation, compatible with MDBs policies and procedures on the procurement of goods, services and works, election and contracting of consultants, financial controls, [oversight and reporting](#); and project monitoring, evaluation, and internal auditing. Based in provided information and given its excellent record in these regards and by having proven effective in applying such high standards in important projects executed in the past (some of them GEF funded) an Institutional Capacity Assessment (ICAS) has not been considered necessary.¹² The Bank believes that this is the case for their E&S Policies including on issues pertaining to E&S management, biodiversity protection and conservation, pollution prevention and control, stakeholder engagement, gender inclusion, and indigenous peoples.
- 4.3 **Execution structure.** The WWF will establish a Project Coordination Unit (PCU) composed of a technical and management team and local thematic specialists as required in the three countries, which will coordinate with government counterparts and other stakeholders in the countries and report to the IDB and UNEP. In addition, the project will define an organic structure led by a Project Steering Committee (PSC) comprised of the executing agency, country representatives and the IAs. In each country, activities will be coordinated by National Project Coordination Units (NPCUs), that will act as an interface between the PCU and national partners, National Technical Working Groups, national TDA/SAP Task Forces and liaise with Civil Society Organizations (CSOs) and local communities as appropriate. An Interagency Coordination Group (IACG), composed of the IAs, the EA, and the PCU, will coordinate project activities and act as progress review mechanism. CSOs, local communities, private sector, academia, and other stakeholders will participate in a Non-Governmental Advisory Body –the Regional TDA/SAP Socialization/Consultative Body.
- 4.4 For the portion of funding corresponding to the IDB, the IDB and WWF will sign a Technical Cooperation Agreement (TCA), establishing the responsibilities for the execution of the TC activities. An Operational Manual will establish operational procedures that WWF will follow and that will include all the precautions needed to ensure compliance with the IDB policies and local legislation, with special focus on procurement and fiduciary aspects and on environmental and social impact and risk management and supervision. Procurement of goods and services will be carried out in accordance with the provisions established in Appendix IV "Policies for the

¹² WWF.2014. International Whistle Blower Policy. [DOI](#)

Procurement in Loans to the Private Sector” of document GN-2349-15 (Goods and Works Procurement Policies) and GN-2350-15 (Consultant Procurement Policies). In this sense, WWF, as a private agency, may use its own procurement procedures in accordance with established private sector or commercial practices that are acceptable to the Bank, so that the Bank is satisfied that such procedures result in competitive market prices for goods, non-consulting services and consulting services, and that these are adapted to the needs of the Project. Regarding Financial Management Matters, WWF will follow IDB policies OP-273-12 Financial management Guidelines for IDB Financed Projects. WWF has an [Environmental and Social Safeguards Framework](#) and a long history of work in the Pantanal region. WWF will assess if there are any gaps between its framework and the IDB’s E&S policies and will ensure that appropriate measures are taken to ensure that the IDB’s policies are followed where the IDB’s policies provide greater protection than those of WWF’s framework.

- 4.5 **Conditions to be fulfilled prior to first disbursement** (including subsidiary arrangements, if any, will be: (i) Evidence that there is an effective financial reporting system and internal control structure; (ii) Evidence that the Operation Manual for the Project has been approved in terms that are satisfactory for the Bank; and (iii) Evidence of the appointment/designation of a Regional Project Coordinator and Technical Advisor and an Administrative/Finance Manager.
- 4.6 **Monitoring and Evaluation – Implementing agencies.** The IDB (acting as leading agency) and UNEP will assess on a continuous basis the performance of the Executing Agency by reviewing progress monitoring reports, providing feedback to project partners, and establishing peer review procedures to ensure adequate quality of scientific and technical outputs and publications. The IDB and UNEP will be responsible for implementing and monitoring their respective project activities. External audits, financial reports and co-financing reports will be reviewed by FMP. Close coordination through the COFs (Country Offices) at the three countries will be ensured by having INE/WSA country specialists as part of the core team for this project. ESG’s COF staff will support the Team on the follow-up and supervision of E&S issues.
- 4.7 **Monitoring and evaluation – Executing Agency.** The proposed monitoring and evaluation activities that the executing agency will comply with consolidated requirements of the IDB, GEF and UNEP, and will include: (i) environmental and social indicators according to IDB policies; (ii) semi-annual progress reports including progress, results and financial reports; (iii) annual progress reports (results and financial); (iv) annual co-financing reports; (v) external audits; (vi) project completion report; and (vii) mid-term and terminal/final evaluations (to be externally contracted) (for detailed information including the detailed budget for M&E see Table 6, section 9 of the [CEO endorsement document](#)). A protocol regarding M&E activities will be established as part of the Operations Manual to be agreed upon between the IDB and the Executing Agency. Baseline data gaps will be addressed by the executing agency, jointly with the countries, during the first year of project implementation. The EA will ensure proper coordination with the local counterpart and the IDB COFs.
- 4.8 **Audit.** During the execution of the project, WWF will present to the Bank annual audited financial statements of the project within 120 days of the close of each calendar year, and final audited financial statements within 120 days of the last disbursement date of the project. The audit will be performed by an external auditor as per the Bank’s requirements indicated in the Financial Management Guidelines for

IDB-financed projects (OP-273-12). The contracting of the external auditor will be done by WWF and will follow the requirements of the Bank.

V. Project Risks and Issues

- 5.1 Regarding the achievement of project outputs and outcomes, an analysis has been conducted identifying possible threats and corresponding mitigation actions in Section 5. “Risks to achieving project objectives” of the [CEO Endorsement Document](#). Some of the major risks identified are: (i) Lack of Political willingness to implement and/or harmonize policies agreed; (ii) Poor inter and intra-governmental and intersectoral coordination during project execution; and (iii) Countries do not agree to establish a trilateral coordination mechanism. To mitigate these risks, during project preparation, the project team has engaged through a continuous dialogue and participatory process¹³ with the countries to assure readiness and ownership, formulating the project based on the priorities of the three countries while considering baseline conditions. Based on lessons learned from previous GEF IW projects, the PCU will be based in the region (with national technical coordinators in the three countries), to ensure consistency of all activities, full engagement with project stakeholders and a timely delivery of products. Also, the potential risk associated with climate related hydro-meteorological extreme events (such as increasing droughts or floods) that could impact directly or indirectly pilots funded by the project and overall project execution has been identified. To mitigate this risk, sites and project locations will be selected based on risk assessments of extreme events impacting the pilot area and projects will be designed considering the potential threats of climate related impacts. Where appropriate, the vulnerability of proposed good practices to changing climate conditions will be evaluated for pilot sites.
- 5.2 Regarding the components that will be funded through the IDB (Component II, III, and IV), the following risks and mitigation measures have been identified: (i) Upscaling of pilots may not be applicable to the wider Pantanal–Upper Paraguay River Basin (Component IV). To mitigate this risk, throughout the implementation of the pilots, the transboundary benefits will be highlighted, and these will be included in the SAP. The best practices implemented through the pilots will be adapted to each country and the specific context of the basin, to facilitate upscaling and replicability; and (ii) Local stakeholders may be reluctant to the implementation of innovative approaches as part of the pilots. This will be mitigated through continuous involvement and information sharing with stakeholders on pilot project design and implementation.
- 5.3 The project will follow the IDB recommendations to prevent risks related to the transmission of COVID 19 in development projects.¹⁴ In addition to this, a [COVID-19 risk analysis](#) (including the identification of risk management actions has been included as Annex K of the [CEO Endorsement Document](#).

VI. Exceptions to Bank policy

- 6.1 This TC operation does not include any exception to Bank policies.

¹³ To ensure gender balance in the activities required for local engagement to support project design and implementation (i.e., pilot interventions), the project will develop and implement a Gender equity, women empowerment, and mainstreaming Plan including specific metrics to monitor gender participation during execution and according to IDB policies.

¹⁴ Vásquez, Juan. 2020. Recomendaciones para prevenir y gestionar los riesgos para la salud por el contagio de COVID-19 en proyectos de desarrollo financiados por el BID. Banco Interamericano de Desarrollo. Nota técnica; 1909.

VII. Environmental and Social Classification

- 7.1 According to Directive B.3 of the Environment and Safeguards Compliance Policy (OP-703), the operation was classified category "C" since only technical assessments and pilot scale on-the-ground interventions without risks of moderate to significant environmental or social impacts will be financed through the TC funds (see [SPF](#) and [SSF](#)). These operations do not require an environmental or social analysis, beyond the screening and scoping analysis for determining the classification as they do involve funding of infrastructure or other works beyond minor pilot-scale interventions to be sited in existing modified habitats and which will not result in any conversion or degradation of natural habitats or other appreciable adverse impacts. WWF, in accordance with IDB, GEF, and its own environmental and social safeguards, will carry out socio-culturally appropriate stakeholder engagement processes to socialize the operation and ensure that local communities, including indigenous peoples, are informed about the financed activities and mechanisms for participation and feedback, leveraging its local experience in each country.

Required Annexes:

Annex I: [Result Matrix](#).

Annex II: [Procurement Plan](#).

Required Electronic Links:

Required Electronic Link I: [Request from the Client](#).

Required Electronic Link II: [Terms of Reference](#).

Optional Electronic Links:

Optional Electronic Link I: [CEO Endorsement Document and Annexes](#).

Optional Electronic Link II: [Results Matrix – IDB – UNEP](#).

Optional Electronic Link III: [UNEP Prodoc and Appendices](#).

Optional Electronic Link IV: [GEF 10554 CEO Endorsement Letter](#).



Operation Number: RG-T3641
TCM Cycle: TCM Period 2022
Last Update: 7/18/2022

Results Matrix






Outcomes

Outcome:		1 Outcome 2. Improved understanding and consensus between the three countries regarding the key transboundary issues and the drivers of change in the region including enhanced capacity for joint monitoring and information exchange (CEO Endorsement Outcome 2)									
Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	2022	2023	2024	2025	2026	EOP
1.1 Approved Basin-wide ecosystem modelling		# of Approved Models	0.00	2022	Agreed Strategy documents	P	0.00	0.00	0.00	0.00	1.00
						P(a)	0.00	0.00	0.00	0.00	1.00
						A					
1.2 Improved information from new hydromet, (surface, and groundwater) monitoring stations		# Reports	0.00	2022	Surface and Groundwater Information from Monitoring Stations	P	0.00	0.00	0.00	0.00	1.00
						P(a)	0.00	0.00	0.00	0.00	1.00
						A					1.00
1.3 Approved strategic plan for a basin-wide water monitoring network		# Strategic Plans	0.00	2022	Basin-wide water monitoring network strategic plan	P	0.00	0.00	0.00	0.00	1.00
						P(a)	0.00	0.00	0.00	0.00	1.00
						A					
Outcome:		2 Outcome 3. Enhanced countries commitment to sustain joint, equitable cooperation actions and to support priority reforms and investments towards improving water security and preserving hydro-ecological services provided by the system (CEO Endorsement Outcome 3)									
Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	2022	2023	2024	2025	2026	EOP
2.1 Identification of pilots that should be replicated and scaled-up with financing plan		# of pilots	0.00	2022	Pilot Projects Final Evaluation and Recommendation Documents	P	0.00	0.00	1.00	0.00	1.00
						P(a)	0.00	0.00	1.00	0.00	1.00
						A					
2.2 Three National Action Plans drafted and validated with key stakeholders		# of plans	1.00	2022	National Action Plan Documents	P	0.00	0.00	0.00	1.00	3.00
						P(a)	0.00	0.00	0.00	1.00	3.00
						A					
Outcome:		3 Outcome 4. Demonstrated on the ground benefits of and stress reduction from environmentally sound and cost effective approaches and technologies for replication in the SAP (CEO Endorsement Outcome 4)									
Indicators	Flags*	Unit of Measure	Baseline	Baseline Year	Means of verification	2022	2023	2024	2025	2026	EOP
3.1 Quantified stress reduction from upscaling pilot actions across basin with financing needs identified		# of Assessments	0.00	2022	Assessment Documents validating benefits	P	0.00	0.00	0.00	1.00	1.00
						P(a)	0.00	0.00	0.00	1.00	1.00
						A					
3.2 Better understanding of financing mechanisms and water management practices for the sustainable development of the Pantanal.		# of Assessments	0.00	2022	Assessment Studies on financing Mechanisms and Management Practices	P	0.00	0.00	0.00	0.00	1.00
						P(a)	0.00	0.00	0.00	0.00	1.00
						A					

CRF Indicator

Outputs: Annual Physical and Financial Progress

1 Component 2. Consolidating and sharing knowledge, and developing a common understanding of the Pantanal-Upper Paraguay Basin (CEO Endorsement Comp.2)

Lower-Upper Paraguay Basin (CEO Endorsement Comp.2)						Physical Progress							Financial Progress							Theme	Fund	Flags
Outputs	Output Description	Unit of Measure	Baseline	Baseline Year	Means of verification	2022	2023	2024	2025	2026	EOP	2022	2023	2024	2025	2026	EOP					
1.1 Technical models designed	(CEO Endorsement Output 2.2) Basin wide ecosystem modelling including inter alia environmental flow modeling, water balance, climate change, vegetation, etc.	Models (#)	0	2022	Developed Models Documents / Reports	P	0.25	0.5	0.75	0.5	0	2	P	20026	250000	229974	0	0	500000	Water and Sanitation	FMM	
						P(a)	0.25	0.5	0.75	0.5	0	1.75	P(a)	20026	250000	229974	0	0	479974			
						A						A										
2 Component 3. Towards trilateral planning for sustainable management of the basin (CEO Endorsement Comp.3)						Physical Progress							Financial Progress									
Outputs	Output Description	Unit of Measure	Baseline	Baseline Year	Means of verification	2022	2023	2024	2025	2026	EOP	2022	2023	2024	2025	2026	EOP	Theme	Fund	Flags		
2.1 Project proposal developed	(CEO Endorsement 3.3) A proposal for achieving environmental flow regimes in at least 2 critical sub-basins. (SA: Climate Change and Sustainability, CEC)	Proposals (#)	0	2022	Approved Proposal Document for achieving environmental flow regimes	P	0.25	0.5	0.5	0.5	0.25	2	P	40814	74438	104739	104869	27030	351890	Water and Sanitation	FMM	
						P(a)	0.25	0.5	0.5	0.5	0.25	1.75	P(a)	40814	74438	104739	104869	27030	311076			
						A						A										
2.2 Strategies designed	(CEO Endorsement Output 3.4) A sustainable financing strategy to support implementation of the SAP and key priority activities. (SA: Social Inclusion and Equality, Productivity and Innovation, etc., CEC)	Strategies (#)	0	2022	Approved Sustainable financing Strategy Document	P	0	0	0.25	0.5	0.25	1	P	0	29250	118225	37725	17750	202950	Water and Sanitation	FMM	
						P(a)	0	0	0.25	0.5	0.25	1	P(a)	0	29250	118225	37725	17750	202950			
						A						A										
2.3 Investment master plans designed	(CEO Endorsement Output 3.5) A series of integrated municipal water and sanitation plans (SA: Social Inclusion and Equality, Productivity and Innovation, etc., CEC)	Plans (#)	0	2022	Approved Water and Sanitation Master Plan Documents	P	0	2	2	2	0	6	P	82875	259450	178710	37135	8000	566170	Water and Sanitation	FMM	
						P(a)	0	2	2	2	0	6	P(a)	82875	259450	178710	37135	8000	483295			
						A						A										
3 Component 4. On-the-ground interventions promoting integrated water resources management and sustainable finance (CEO Endorsement Comp.4)						Physical Progress							Financial Progress									
Outputs	Output Description	Unit of Measure	Baseline	Baseline Year	Means of verification	2022	2023	2024	2025	2026	EOP	2022	2023	2024	2025	2026	EOP	Theme	Fund	Flags		
3.1 Pilot interventions implemented	(CEO Endorsement 4.2) Water/food/energy nexus interventions for enhanced water and land security considering competing	Pilots (#)	0	2022	Water/food/energy nexus Documented Pilot Interventions Reports	P	0.5	1	1.5	2.5	0.5	6	P	9750.25	92747.25	181895.25	133272.25	4375	422040	Water and Sanitation	FMM	
						P(a)	0.5	1	1.5	2.5	0.5	5.5	P(a)	9750.25	92747.25	181895.25	133272.25	4375	412289.75			

Other Cost
Monitoring and Evaluation
Project Management and Audit

Total Cost

 Standard Output Indicator

	2022	2023	2024	2025	2026	Cost
P	\$0.00	\$0.00	\$99,000.00	\$29,990.00	\$51,740.00	\$180,730.00
P(a)	\$0.00	\$0.00	\$99,000.00	\$29,990.00	\$51,740.00	\$180,730.00
A						
P	\$33,333.00	\$67,308.00	\$45,385.00	\$39,230.00	\$14,744.00	\$200,000.00
P(a)	\$33,333.00	\$67,308.00	\$45,385.00	\$39,230.00	\$14,744.00	\$166,667.00
A						

	2022	2023	2024	2025	2026	Total Cost
P	\$414,673.25	\$1,330,173.25	\$1,536,538.25	\$736,851.25	\$181,764.00	\$4,200,000.00
P(a)	\$414,673.25	\$1,330,173.25	\$1,536,538.25	\$736,851.25	\$181,764.00	\$3,785,326.75
A						

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/22

Regional. ATN/FM-____-RG. Nonreimbursable Technical Cooperation of the Global Environment Facility (GEF). Transboundary Cooperation for the Conservation, Sustainable Development and Integrated Management of the Pantanal - Upper Paraguay River Basin

The Board of Executive Directors

RESOLVES:

1. That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, as Administrator of the IADB/Global Environment Facility Fund ("Fund"), to enter into such agreement or agreements as may be necessary with the World Wildlife Fund Inc., and to adopt such other measures as may be pertinent for the execution of the project proposal contained in document AT-____, with respect to a nonreimbursable technical cooperation to support the Transboundary Cooperation for the Conservation, Sustainable Development and Integrated Management of the Pantanal - Upper Paraguay River Basin.
2. That up to the equivalent of US\$4,200,000 is authorized for the purposes of this resolution, chargeable to the resources of the Fund.
3. That the above-mentioned sum is to be provided on a nonreimbursable basis.

(Adopted on ____ 2022)