

PROJECT IMPLEMENTATION REPORT

Project ID:	10139
Project Name:	Implementation of the Guarani Aquifer Strategic Action Program: Enabling Regional Actions
Countr(ies):	Regional
Implementing Agency:	CAF

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I. Overview

A. Description

Project name

Implementation of the Guaraní Aquifer Strategic Action Program: Enabling Regional Actions

Country

Regional

GEF ID

10139

Implementing Agency

CAF

Executing Entity

UNESCO

Trust Fund

GET

Project Type

MSP

PIR Submission

5/21/2025

Fiscal Year , PIR Number

FY 2024 , 4th PIR

Objective

Enhancing water security in Argentina, Brazil, Paraguay and Uruguay by facilitating the initial implementation of the Guaraní Aquifer System SAP through the setting up of information collection and exchange mechanisms, and multi-country technical management bodies and tools.

B. Ratings and Disbursements

Implementation Progress

Satisfactory

Development Objective

Satisfactory

Overall risk

Low Risk

Project Financing

2,234,500.00

Cumulative Disbursement

2,000,000.00

C. Key Dates

CEO Endorsement/Approval

12/13/2019

Agency Approval

11/20/2019

Implementation Start 6/29/2022	First Disbursement 6/29/2022
Expected MTR 2/28/2024	Actual MTR
Expected Completion 7/15/2025	Actual Completion

II. PROGRESS STATUS AND ISSUES

A. Information on Progress, Challenges and Outcomes on Project Implementation

The Guarani Aquifer System, with an estimated extent of 1,087,879 km², is one of the largest global freshwater reserves and represents the main source of freshwater for around 90 million people in the four countries sharing the aquifer: Argentina, Brazil, Paraguay, and Uruguay. The project “Protection and Sustainable Utilization of the Guarani Aquifer” (2003 - 2009, GEF, World Bank, OAS) allowed the four countries to substantially improve their common knowledge of this “invisible” resource. The project culminated in the preparation and adoption of a Strategic Action Program, indicating the priorities for action by the countries.

Following the finalization of the project, each country advanced separately and independently with the implementation of the national actions foreseen in the SAP but did not make progress in those regional actions requiring a multi- country coordinated action aimed at ensuring continuity and harmonization in the generation and dissemination of information of common interest. Data on the evolution of the quality and hydrodynamics of the aquifer’s groundwater are in fact essential to detect contamination processes or flow modifications due to anthropogenic factors – including transboundary impacts - and hence to enable the sustainable utilization of this precious resource.

The present project - nested within the La Plata Treaty framework – is intended to assist the countries in accelerating the implementation of the SAP regional actions and setting up the technical coordination frameworks and the tools indispensable for the long-term sustainability of the resource, and for complying with the Guarani Agreement provisions.

Among the objectives of the proposed project is to update the actions of the SAP, with special focus on enhancing water security considering the impacts of future climatic scenarios, the protection of the ecosystem services that the aquifer provides and of the need to mainstream in the SAP itself gender equity and women empowerment.

Considering the project design and implementation, there are 3 proposed Components that organizes its objectives, outputs, outcomes and project management.

Component 1: Consolidating transboundary technical cooperation (SAP Action 2)

During the execution of the first Project, the countries that share the aquifer resources agreed that the management of the Guarani Aquifer System, likewise all groundwater resources, falls under national sovereignty. Coordination and cooperation have, however, been fully recognized by the countries as indispensable for the implementation of strategic actions of regional and/or transboundary relevance. In this respect, the SAP recommended that the institutional structures that successfully operated during the execution of the foundational project (GASP), be maintained and institutionalized. For what concerns the present project:

- 1) Technical Committees (Monitoring and Models; Capacity building and Dissemination) – They represent the institutionalization, within the new context of SAP implementation, of the Technical Commissions created by GASP. They will enable the necessary technical coordination during SAP implementation.
- 2) The SAP implementation facilitating unit – representing the liaison among Technical Committees, and with higher levels of decision making.

Following SAP recommendations, the Monitoring and Models Committee will include representatives of the scientific community and of the entities responsible for water resources of each country. It will take advantage of available monitoring and modelling experience in each country and of the knowledge generated by the GASP. Countries will nominate their representatives and explore the regulatory instruments

ensuring sustainability to the coordinated monitoring in areas of transboundary influence.

In turn, the Capacity Building and Dissemination Committee (CCD) will take responsibility in promoting gender equity through sex disaggregated data collection and analysis, and the sharing of information and experiences regionally and globally. It will articulate its actions with the Monitoring and Models Committee to associate the information regarding the water samples collected and analyzed with the presence and water uses of the population living and/or working in the respective areas of sampling. Countries will nominate their representatives the committee to assure ample representativeness and participation.

Component 2: Design and field pilot testing of monitoring networks and protocols (SAP Action 4)

The purpose of this activity is to respond to the need for reliable periodic information from wells to produce sets of data on water quality and quantity similarly to what is being done by countries for surface and meteoric waters, with systematic and periodic measurements.

The envisaged “multi-purpose” monitoring network will be designed to pursue both the overall of characterization of the aquifer – not requiring constant measures and samplings - and the detection of possible zones of degradation of the water quality below drinking standards – which will require instead frequent downhole measurements. In recharge and discharge areas, where the aquifer rocks outcrop and where groundwater is highly vulnerable to contamination, a greater number of parameters will have to be monitored. On the contrary, in deep wells extracting waters thousands of years old, expected variations in chemical characteristics are minimal. Methodological guidelines, to be applied both at the national and the

regional levels, will have to be defined to guarantee the representativeness of the collected samples and of the measurements onsite. Several technological options for downhole monitoring exist, that will have to be evaluated during project execution.

The implementation of the Regional Monitoring Network will require an initial step, or Pilot Phase, which will allow the four countries' institutions to develop the monitoring methodology. This step-by-step implementation will allow to adjust the procedures and methodology based on experience gained in the field while strengthening the capacity of the relevant institutions in each country. It must be stressed that the strategy for the selection of sampling/measurement sites is just as important as the choice of parameters, variables, and frequency of monitoring.

For the Pilot Phase, object of the present project, several representative wells will be defined. This phase will allow the countries to gain direct field experience and adjust accordingly their internal procedures, as well as the mechanisms for the storage of shared data in a common database.

The total number of monitoring wells for the Pilot Phase will be 35 (15 in Brazil, 8 in Paraguay, 6 in Argentina, and 6 in Uruguay). Wells already belonging to national GAS monitoring networks will be included as part of the counterpart contribution

Component 3: Stakeholders' involvement, SAP update, dissemination, and capacity building (SAP actions 2, 5, 7)

Establishment and operationalization of the Capacity Building and Dissemination Committee, tasked with the updating of the SAP, the raising of stakeholder's awareness, the dissemination of general GAS and project specific information, the implementation of educational initiatives, together with capacity building and gender mainstreaming, are considered by countries as of paramount importance for the success of the project and of the sustainability of the GAS resources utilization. There is also consensus among countries that groundwater management and protection demand the participation of all stakeholders, including women, Indigenous people, the private sector, and the civil society. This Component of the project will strive to institutionalize these functions, essential throughout SAP implementation and beyond, and to promote gender equity and sex disaggregated data collection, and the protection of groundwater dependent ecosystems and biodiversity.

Progress summary in the Year 2 (July 2023 – June 2024)

Initial Steps

The Project began execution on June 29, 2022, when all the conditions established in the CAF Agreement (GEF implementing agency) with UNESCO (executing agency) were met. On this date UNESCO received the first disbursement of funds in the amount of US\$150.000.

After the approval of the Project by the GEF (November 20, 2019) and by CAF (May 30, 2020), the specific agreement between both entities is processed and the dialogue between CAF and UNESCO is opened to define and agree on the Project Execution Agreement, a document that defines the responsibilities, conditions and guidelines for the implementation of the Project together with the 4 proposing countries. This period is strongly conditioned by the COVID-19 pandemic, which not only slowed down and modified the work guidelines, but also determined successive changes in the countries representatives. Notwithstanding the impossibility of meeting the requirements to start the formal execution of the Project, during the last months of 2019 and the first half of 2020 it was informally agreed between CAF, UNESCO, and authorities of the 4 countries, to proceed with preparatory work that would then facilitate the start of the execution with advanced programming. Among the preparatory activities for the implementation of the Project were the following:

- the signing of the Implementation Agreement between CAF and UNESCO after an exchange between legal and technical staff and authorities of both institutions.
- a proposal for the Project Execution Plan, detailed by components and activities, including its schedule and associated costs.
- the preparation of the ToRs for the members of the Technical Project Unit, the International Technical Coordination, the Administrative Assistant, the G4 Administrative Officer and the Communications, Dissemination and Public Participation specialist.
- A proposal for the rules of procedure of the Project Steering Committee.

UNESCO in agreement with CAF and with the list of persons provided by the countries, called a preliminary meeting to discuss an agenda that included the presentation of the status of the project and, in order to advance the call to fill the positions of the members of the Project Coordination Unit (PCU), to gather a first opinion of the countries on the proposed Rules of Procedure for the operation of the Project Steering Committee (PSC) and about the ToRs, all documents that were submitted to the countries prior to the meeting. This meeting was held on August 17, 2021, with the participation of high-level authorities from the countries accompanied by technical advisors and all the designated National Coordinators.

Additionally, the “Guarani Agreement” that had to be signed by the 4 Presidents of the involved countries was signed in November 2020, as the Congress of Paraguay, the remaining country. The approved document was deposited in Brazil, as necessary, for the promulgation of Brazil’s president. The approval of this agreement was a key step for the legal and institutional framework for project implementation.

Progress in the execution of the Project.

The progress of the Project execution in its second year of activities is reported now and covers from July 1, 2023 to June 30, 2024

The financial execution of the project has advanced by 44,56% and the technical execution of the project is estimated to be above 77% (considering the Project Implementation Progress table) as of June 2024.

Regarding the progress of activities in general, it should be noted that the 4 countries maintain a strong interest in the Guarani Aquifer System and in the Project, despite the long period of its preparation of more than 10 years. The 4 countries that own it have ratified this will with a very intensive engagement in the project activities and, with the promulgation of the Guarani Agreement by Brazil's president in January 2024th followed by formal meetings of its committees.

During this 2nd year the work has focused on producing content for the SAP update coming from experts on Gender, Climate Change and Ecosystems Services, Laws and Regulations and from the participatory processes with multiple stakeholders in National and Regional events. The progress achieved is visualized below following the structure of the Project according to its 3 Components.

Component 1. Consolidating transboundary technical cooperation (SAP Action 2)

The activities foreseen in this Component seek to constitute a governance of the Project that can propose a long-term structure for the Agreement implementation. To this end, progress was made in the following activities:

- 3 Meetings of the Project Steering Committee.
 - IV Meeting (virtual): Annual Operational Plan July23/June24 approval
 - V Meeting (virtual) - Project Procurement Plan approval
 - VI Extraordinary Meeting (virtual) - Project Extension approval
- 16 meetings of the Monitoring Network and Models Committee (**MMC**), considering the preparation of the following documents:
 - i. TOR of the Committee
 - ii. Data exchange strategy
 - iii. laboratory analysis protocols.
- 6 meetings of the Capacity building and Dissemination Committee (**CDC**), considering the preparation of the following documents:
 - i. TOR of the Committee
 - ii. Planning, execution and evaluation of the National workshops.
 - iii. Planning, execution and evaluation of the Indigenous workshop.

It is important to highlight that the Project is finalizing the TORs of the Technical Committees, considering its working experience, in order to give support for the establishment of the committee's regulations and procedures in the context of the Guarani Agreement.

Component 2. Design and field pilot testing of monitoring networks and protocols (SAP Action 4)

The progress of this Component is related to and gives content to the re-created Monitoring and Models Committee (MMC).

The Committee has worked based on regional meetings of all its members, both face-to-face and virtual.

In successive meetings and preparatory work of the Committee and its members, technical criteria and institutional objectives have been agreed upon:

- Criteria and selection of 35 wells to be monitored
- Drilling of 4 water wells for monitoring in those places where there were no suitable wells
- Access agreements with the owners or operators of the selected wells.
- Parameters to be handled and definitions for working protocols for monitoring.
- Preparation of TORs for contracts with drilling companies, laboratories and monitoring equipment suppliers
- Identified and contracted certified laboratories with the necessary analytical capabilities in each country.
- Identification of equipment to be installed and criteria for its acquisition and installation.
- Call for equipment proposals and selection of the best proposals
- Definition of the data to be shared by the platform for data sharing.
- Preparation of the guide (ToR) for future operation.
- In the process of drafting the final report of the MMC.

Component 3: Stakeholders' involvement, SAP update, dissemination, and capacity building (SAP actions 2, 5, 7)

The activities foreseen under this Component are directly related to the activities of the Capacity Building, Communication and Dissemination Committee (CDC), already established under Component 1. The activities implemented have been driven in the first instance directly from the Project Coordination Unit (PCU) and then progressed with the hiring of specialist consultants to coordinate its activities and to advance with Gender Equity, Climate Change, Ecosystem Services for the update of the Guarani Aquifer System (GAS) Strategic Action Plan (SAP).

The process was designed and implemented in a participatory approach, considering a diversity of stakeholders: government, users, scientific community, civil society, indigenous peoples. During the second year of implementation, the Project executed 4 National workshops, 1 Local and 1 Regional Workshops engaging more than 500 stakeholders sharing their present and future vision for the Guarani Aquifer System. Based in the World Cafe method, the National events developed gender equity presentations with gender analysis and sex-disaggregated data collection as a trigger to gender dialogues on the “table”.

The National events also considered participation of stakeholders from border countries, to discuss and strengthen transboundary groundwater management.

It is relevant to report that the project planned and designed activities for the 10th GEF World Conference of International Waters, meeting

B. Stakeholder Engagement

The Stakeholders Engagement Plan (SEP) was proposed in this period, which is considered a long term document (beyond the project implementation), was developed by integrating technical inputs from stakeholder dialogues, regulatory review and institutional surveys, a documentary review of the project background, and a desktop study of these inputs to formulate proposals. The inputs gathered during stakeholder dialogues stemmed from: **a.** National multisectoral workshops in Argentina, Brazil, Paraguay, and Uruguay; a local workshop with stakeholders connected to the Salto-Concordia pilot; and a meeting with indigenous communities, **b.** Meetings with members of the Capacity Building and Dissemination Committee, and **c.** Bilateral interviews with key project stakeholders.

The SEP outlines a series of proposals organized along two main pillars: those aimed at enhancing engagement at the regional level and those focused on strengthening engagement at the national level. Both sets of actions are interconnected and share a common principles and approach. Special emphasis was placed on creating dedicated spaces for dialogue with two key sectors vital for the implementation of the SAP (Strategic Action Plan): indigenous peoples and GAS users.

Additionally, the existing dialogue structures across GAS participation are to be reinforced, building on the stakeholders' experiences and lessons learned. The overarching goal is to ensure that these platforms are designed for long-term sustainability, beyond the lifespan of any individual project, and that they are supported by regional and national frameworks. These efforts will be anchored within existing legal frameworks, including the Guarani Agreement and the national and subnational regulatory and institutional structures. These proposals are built on a strategic vision of the SAP (Strategic Action Plan), guiding participation through the initiatives created by this plan.

In parallel, the participatory vision of the GAS must be supported by technical inputs that offer specific, actionable information.

Therefore, the SEP calls for an expansion of the actor mapping process undertaken, to not only identify but also closely analyze the interests and needs of each sector, considering their territorial and institutional contexts. For indigenous peoples in particular, the development of specific participation guidelines and the use of GIS tools will help provide a more detailed understanding of these stakeholders, ensuring their full right to a free, prior, and informed consultation process.

The Preliminary Report on Stakeholder Engagement, was delivered to the PSC (Project Steering Committee) on August 1, 2023.

Meetings: Regional, National and Local.

Between August and December of 2023, 4 National workshops to dialogue on the actual and future vision of the GAS regional management were implemented. There was a diverse sector of the participants in the four meetings: National Government, Subnational Government, NGOs/CSOs, Private Sector, Independent Party, International Cooperation, and Academic Experts.

Below is a summary of the key points raised by participants during the national workshops held under the MSP-GAS (*Medium-Sized Project/Guaraní Aquifer System*) framework, specifically regarding public engagement:

Uruguay Workshop - 69 participants

- Social participation in water governance and management in the country is considered as a significant achievement. However, it is often limited to an advisory capacity, and there is a strong need for more binding participation. Stakeholders' perspectives should be included in decision-making processes and assessments.
- Participation should be broadened to include vulnerable groups.
- Special attention should be given to the voices of women, who are often more perceptive in identifying signs of water resource degradation.
- Strengthen the participation of academia, civil society, and communities.

Argentina Workshop - 75 participants

- Develop public policies for access to water and sanitation through a participatory approach.

- Strengthen institutional coordination between national, provincial, and municipal governments, as well as across ministries and other relevant agencies, for effective GAS governance.
- Systematize and process existing GAS information to ensure it is shared at all levels—national, provincial, and municipal—and foster greater inter-institutional cooperation.
- Promote awareness and information dissemination at the local level to enhance participation and build technical capacity for improved data analysis.
- Establish technical dialogue platforms at the national level to advance consensus on geological definitions of the GAS.
- Improve understanding of regulatory frameworks by creating clear regulatory and institutional maps.
- Create networks and information systems on the GAS that ensure easy access for all stakeholders and sustain their operation through continuous updates. Strengthen cross-border technical cooperation, share data, and coordinate management efforts.
- Create a network of GAS stakeholders.
- Develop user-friendly information and accessible communication strategies for technical information to ensure all stakeholders can easily engage with it.
- Uphold and promote the role of women in water access and management by strengthening spaces for women's participation in decision-making processes.
- Foster dialogue with indigenous peoples, acknowledging their traditional knowledge of water, climate change, and nature. Combining ancestral knowledge with scientific knowledge.

Brazil - 103 participants

- Strengthen the Permanent Committee of the Guarani Aquifer by enhancing its composition, activities, participation, and competencies. Expand the role of the Public Prosecutor's Office within the National Water Resources Management System.
- Encourage greater involvement from academic research groups focusing on groundwater. Promote dialogue between the technical-academic sector, which produces hydrogeological data, and the users and members of the Basin Committees.
- Expand the participation of universities and higher education institutions in capacity-building activities, not only with the Basin Committees but also through direct engagement with the population.
- Foster collaborative solutions with water users (for example, by liaising between public authorities and agribusiness stakeholders).
- Ensure the inclusion of women and other historically excluded groups in leadership and decision-making spaces.
- Create child-friendly spaces (e.g., playrooms, daycare centers) to facilitate the effective participation of women.
- Ensure and broaden civil society's involvement in Basin Committees, eliminating the need for CNPJ registration to avoid excluding experienced representatives.

Paraguay - 63 participants

- Strengthen international cooperation among GAS member countries to enhance information exchange, engagement, shared management, and fundraising efforts, among others.
- Establish robust information networks.
- Foster public participation in GAS management.
- Promote and strengthen the involvement of women in social engagement. Recognize and enhance the role of indigenous women and communities, supporting and promoting their public participation.

- Acknowledge and prioritize the engagement of local stakeholders in groundwater management initiatives. Expand civil society's involvement across various participatory platforms, fostering stakeholder empowerment in participation.
- Increase State presence in communities to facilitate dialogue on diverse water and sanitation needs. Enhance State decentralization to improve oversight and monitoring of water management nationwide.
- Develop collaborative networks connecting the National Government, provincial governments, and municipalities. Improve institutional communication at MADES to broaden its reach within society, by, for example, using social media and other communication channels effectively.
- Create a Network for Strengthening Municipalities within GAS.
- Promote environmental education and awareness strategies, especially for youth and children, to encourage long-term shifts in environmental consciousness. Integrate GAS topics into school curricula. Develop academic programs and other undergraduate and graduate on GAS.

Local meeting in Concordia, Argentina held on September 14, 2023- 'Advancing knowledge of the Guarani Aquifer: 20 years after the Concordia-Salto Pilot' - 25 participants

Summary of the key points discussed in the plenary session:

→ GAS Governance: it is important to approach water governance holistically, beyond mere supply and usage considerations. Access to water requires comprehensive approaches with interdisciplinary perspectives. Emphasis was placed on fostering a collective identity connected to groundwater.

Participants stressed the need to strengthen cooperation and trust among GAS countries and data sharing. Promote greater exchange among the provinces.

The need to bolster a national hydrological network and meteorological radars was also discussed.

Participants recommended improving collaboration among municipalities in the provinces and coordinating efforts across various provincial government departments. Creation of a GAS working group that integrates diverse agencies, institutions, and municipalities.

Enhance the driller registry system and improve regulatory oversight. Participants expressed concern over the shortage of human resources specialized in hydrogeology.

→ The gender perspective and its connection to GAS management.

The discussion touched on gender equality within institutional settings related to GAS's decision-making and management activities. Some participants noted that in the province of Entre Ríos, gender inequality is not marked in provincial public institutions. However, it remains crucial to continue advancing toward greater equality in decision-making spaces, as most consultants and specialists in water management are men.

The gender perspective is particularly relevant when working with indigenous peoples and communities, where the role of women in water-related matters needs to be recognized and valued. There are diverse realities regarding access to water in the interior regions of the province.

Participants also stressed the importance of gender-specific indicators and data related to water access, health, epidemiology, and climate change, among others.

Participants also identified the need for increased gender training for human resources involved in water management.

→ Climate change, ecosystems, pollution prevention and environment linked to GAS

Groundwater usage should be included in national CO2 emission reports.

The impact of thermal groundwater usage, particularly in tourism and hotel activities, was discussed, along with associated environmental concerns, such as the thermal impact of effluents. Issues like water imbalance and the promotion of monitoring networks were identified as areas for further analysis.

Integrated management must involve various sectors, including those responsible for waste management. Integrating the environmental aspects of the GAS, including effluent treatment, rational water use, and the prevention of watercourse contamination—a frequently reported concern, among other environmental approaches.

To conclude the plenary discussion, several key points were highlighted that require further research and understanding in relation to the GAS, including: the assessment of cyanobacteria and algal blooms, the surface impacts of Guaraní Aquifer usage, the import of water with different chemical qualities, the volumes of groundwater being discharged.

Indigenous peoples

The event titled 'Regional Dialogues with Indigenous Peoples: Insights for the Management of the Guaraní Aquifer System' took place on June 6 and 7, 2024, in Posadas, Misiones (Argentina). It gathered 34 participants, including representatives of the Guaraní and Charrúa indigenous peoples from Argentina, Uruguay, Brazil, and Paraguay, along with representatives from CCD and other governmental institutions across the four countries.

The summary of the main discussion points of the dialogue and exchange with the participants were organized around the key thematic areas most frequently reiterated during the workshop:

1 The Indigenous Perspective on Groundwater:

- For indigenous peoples, water and the Guaraní Aquifer are not mere natural resources; they are their cultural heritage. The Guaraní Aquifer is sacred to indigenous communities.
- Indigenous peoples view the land, water, forests, and humans as interconnected. We, the indigenous communities, are the voice of the land. We must show equality with nature. The responsibility belongs to everyone.
- The concept of the 'center of the earth' is fundamental in Guaraní cosmovision and must be considered in all decision-making. To have a comprehensive view, integrating our traditions and knowledge.
- For the indigenous communities cosmovision land is the foundation, including all the parts we cannot see, such as the Guaraní Aquifer. Our ancestors rest in the land, becoming part of the land and the aquifer once again.

2 Uses of water and nature by indigenous communities

- Indigenous communities fight to defend and preserve our lands and waters as part of our cultural legacy.
- Everything surrounding us belongs to us, and we are here to protect it. Indigenous peoples know and understand nature, since it is not an external entity. No one can teach us how to care for and use nature; The Guarani people can teach others how to respect and protect water and nature.
- In the indigenous worldview, we are all animals. We are all part of nature and therefore we must respect and preserve it.

3 Challenges and difficulties

- Indigenous communities face serious safety concerns and threats in some regions.
- Water resources are affected by deforestation, soybean, monoculture, green hydrogen projects, and over-exploitation. Industrial freshwater usage is alarmingly high, while a low percentage is allocated for human consumption.
- We have serious problems with extractive and polluting industries. Profits are transferred abroad and communities are left behind without supplies and with contaminated water.
- Many people still lack access to water, yet laws prioritize large companies and industries. Laws must prioritize the population.
- There is a widespread human rights crisis and ongoing environmental violations globally. Participatory monitoring is not carried out. Communities are unaware of the quality of the water they are consuming and using.
- Some areas have faced severe droughts, resulting in water access crises for human consumption. While large industries had secured their water supply.

The participants agreed on a document with proposals, which was signed by the representatives of the participating organizations, outlining the following proposals:

→ Establish a regional working group for the Guarani Aquifer System, as well as national working groups, to ensure the full, effective, and permanent involvement of indigenous peoples in plans, programs, projects, and actions. Indigenous representatives will consult their organizations, groups and ally communities and will submit proposals by September to the MSP/SAP-GAS National Coordinators for these to be included in the workshop results.

→ Contribute to and enrich the plans, programs, projects, and actions to be implemented in the Guarani Aquifer System.

→ Integrate indigenous worldviews and knowledge into the plans, programs, projects and actions of the Guarani Aquifer System.

→ Develop communication, dissemination and information mechanisms for indigenous communities that are culturally appropriate and available in their languages.

→ Raise awareness among public and private sectors about the social, environmental, spiritual, and cultural aspects of the Guarani Aquifer System, with a focus on indigenous perspectives.

C. Gender Equality

The project execution is based on Committees and work groups. In terms of gender breakdown in the project committees, a balanced representation has been observed. Within the Project Steering Committee (PSC), 50% of the members are women, showcasing a strong commitment to gender equality in decision-making processes. In the National Coordination Units, female representation stands at 75%. Additionally, in the two Technical Committees, women account for 62.5% of participants, while men make up 37.5%.

gender analysis and sex-disaggregated data collection

The workshops conducted in Uruguay, Argentina, Brazil, and Paraguay explored various gender-related issues in two different approaches: access of water and in water management and governance.

In the start of the events, it was presented a gender analysis with sex-disaggregated data collection by an expert to promote discussions in the dialogue tables. Key approaches and actions discussed are summarized below:

1. **Binding Participation:** Participants stressed the need for social participation to extend beyond mere consultation to actively include vulnerable groups, particularly women, who are vital in identifying water-related challenges.
2. **Strengthening Participation Spaces:** In Argentina, there was a call to recognize the role of women in accessing water and to enhance their involvement in decision-making processes. The importance of establishing dialogue with indigenous peoples was also highlighted, aiming to integrate their knowledge of water and climate change.
3. **Gender Perspective in Management:** During the Concordia meeting, discussions centered on gender equality within institutions involved in water management. While some provinces may not exhibit pronounced inequality, the need to advance gender equality in decision-making spaces remains essential.
4. **Gender Training:** The workshops identified a pressing need for targeted gender training for staff engaged in water management, ensuring that policies reflect and address gender-specific realities.
5. **Interrelated Vision:** At the event with indigenous representatives, it was stressed that water is part of their cultural and sacred heritage. Participants advocated for a vision that respects the interconnectedness of land, water, and community, incorporating the gender perspective into decision-making.
6. **Challenges and Difficulties** Participants noted significant challenges regarding the security of indigenous communities and access to water. Women often encounter greater obstacles in accessing resources and participating in water management, underscoring the importance of policies that prioritize their inclusion and empowerment.

It was emphasized the need to promote gender equality and ensure equitable access to water, recognizing the disproportionate challenges faced by women and girls.

These proposed actions aim to transform public policies and foster active female participation in water management, contributing to sustainable and equitable development across the region.

1: Create and secure gender-balanced spaces for dialogue and consultation with traditional communities, to understand their needs, uses, and expectations surrounding water.

Recent outreach meetings have revealed significant difficulties in water access for rural and indigenous communities. Women, especially teenage girls, are disproportionately affected by limited access to drinking water and sanitary facilities, impacting their health and education. Given that women often act as primary caregivers, their vulnerability is heightened. Thus, establishing dialogue with women's organizations and communities is essential to understand and address local realities in water management.

1.1 Identify Key Local Issues with a Gender Lens.

The aim is to create a list of priority issues at the local level that incorporate the gender perspective, promoting an inclusive approach in the consultation with communities. This inclusive list will help prioritize the pressing concerns of families and communities.

2: Create a Gender-Perspective Form for Water Access Requests

The SAP proposes a gender-focused form to be completed with water access requests, helping identify existing inequalities and forming the basis for evidence-driven public policy development.

3: Develop a Public, Accessible Database for Gender Data in Water Requests

Design an accessible, user-friendly database to support gender-based data collection on water requests. The database will categorize information by gender, age, and other relevant factors, facilitating informed decision-making at GAS.

4: Annual presentation of the findings in the execution of the project and data collected through the gender-based forms on water requests.

Present findings annually on gender-specific data collected from the gender perspective form, raising awareness about the gender gap in water access and its effects on various populations.

5: Promote and advance opportunities for peer-based exchanges on community knowledge and wisdom on biodiversity, bioindicators and ecosystem services.

The SAP promotes knowledge sharing between scientific experts and community members on topics like biodiversity and ecosystem services, enhancing local social and economic development.

6: The Capacity Building and Dissemination Committee is to integrate a gender perspective into a regional roadmap that highlights the key topics within each country.

Develop a regional roadmap summarizing priority topics for each country, through a comprehensive approach covering areas such as education, health, gender violence, and political participation.

6.1: Develop a gender mainstreaming manual for the project at the local level and in the monitoring processes within each country to address direct and deep-rooted inequalities in the sector.

It is important to prepare a gender mainstreaming manual to support the implementation of the project, providing teams with clear guidelines to advance the desired objectives.

7: Ensure that the Capacity Building and Dissemination Committee implements gender and groundwater training programs.

Ensure the Capacity Building and Dissemination Committee provides targeted training on gender and groundwater management, equipping technical teams to adopt this perspective across all project phases.

7.1: Incorporate gender lens into community training on aquifer management, best practices, extraction protocols and the integration of community knowledge, guaranteeing equal participation.

Equip communities to interpret monitoring systems and facilitate dialogue between scientific and local expertise.

8: Develop and implement indicators for each corresponding action with the countries involved in the GAS.

Collaborate with GAS countries to create and implement specific indicators for each SAP action to measure their impact on gender equality. This work will be conducted in partnership with UNESCO WWAP.

9: Encourage gender-inclusive research across research institutes.

Promote research that integrates a gender perspective in groundwater studies, offering scholarships for studies that address these issues.

10: Gender and aquifer management law portal.

Develop a user-friendly portal providing comprehensive information on regulatory frameworks and gender-focused advances in water and aquifer management within GAS countries.

11: Implement a gender-sensitive survey to analyze gaps in roles, responsibilities, and remuneration

Conduct a survey to systematically capture gender-based disparities in positions, responsibilities, and pay within the sector.

12: Increase budget visibility of the project's gender perspective contributions.

Quantify and highlight budget contributions toward gender equality within the project, ensuring that political commitments to gender inclusion are translated into concrete financial support and actions.

This integrated approach aims to not only identify and reduce gender disparities in water access and resource management but also to foster policy transformations that promote equality and sustainable development across the region.

In this context it was proposed some guidelines (on analysis from the countries) to the update the SAP:

GUIDELINE 1: ENGAGEMENT WITH A GENDER APPROACH

Establish a protocol as a cross-cutting mechanism to promote and guide gender parity in the organization of workshops, meetings, and decision-making forums. This protocol specifically emphasizes the inclusion of women from indigenous and traditional communities, young and elderly women, and members of local groups in vulnerable or minority positions.

GUIDELINE 2: BUDGET PLANNING WITH A GENDER APPROACH

Establish a protocol for comprehensive budget planning that promotes gender parity within GAS's institutional framework across member countries.

GUIDELINE 3: ENVIRONMENTAL SUSTAINABILITY AND ECONOMIC EFFICIENCY

Conduct research to gather gender-disaggregated data on the interests and contributions of both men and women toward sustainable solutions. This includes mapping community and stakeholder efforts in creative water management practices within the GAS, analyzing benefits of water use and management within the

System, assessing usage restrictions during extreme weather, and identifying country-level strategies for transparency and accountability in water allocation systems.

D. Knowledge Management

The Project was structured from the outset with a strong focus on knowledge management, recognizing the importance of sharing and transferring technical knowledge among the four countries involved: Argentina, Brazil, Paraguay, and Uruguay. This process is key to ensuring the long-term protection and sustainable use of the aquifer, and it was implemented through multiple channels, both internal and external.

Development of the Knowledge Management Mechanism

The project worked collaboratively through its Technical and Coordination Committees, generating documents that were essential for consolidating knowledge on aquifer management. These committees produced collaborative reports, technical guidelines, and protocols that were later shared with the participating States, facilitating the standardization and uniform application of best practices in each country. The generated information included technical criteria for the sustainable management of the aquifer and recommendations for implementing the actions defined in the Strategic Action Program.

1. **Committee Work:** The Committees played a central role in the production of technical knowledge. Each of the technical and monitoring committees was responsible for developing collaborative reports and documents that addressed topics such as transboundary aquifer management, hydrogeological monitoring, and well management. These reports were not only shared internally among project stakeholders but were later disseminated at the national level in each State, ensuring that decision-making was based on a common understanding of the resource and its challenges.
2. **Public participation and seminars:** Through seminars, workshops, and training sessions, the project actively engaged local communities, social actors, and authorities in the knowledge management process. Each of these events was followed by the preparation of **reports** summarizing the key points discussed and the proposals generated, which were then shared with the participating communities and key stakeholders. This reinforced the commitment of all actors to resource management.
3. **Participation in international forums:** The Project Committee also played a key role in knowledge dissemination. Its members actively participated in international forums on water and transboundary aquifer management, sharing the PPM's progress and exchanging knowledge with other experts globally. These exchanges not only strengthened the committee's technical capacity but also positioned the Guarani Aquifer System as a reference point for transboundary water management.

Results in Knowledge Management among States:

The Medium-Sized Project created a regional network for sharing technical knowledge, consolidating cooperation between the four countries and promoting a common and shared approach to aquifer management. Some of the main achievements in knowledge management include:

- **Collaborative technical documents:** The committees developed and shared a series of technical guides, monitoring protocols, and manuals among the States, which helped standardize practices for groundwater management. These documents also incorporated criteria on gender, climate change, and ecosystem services, allowing for a more inclusive and sustainable management approach.

- **Consolidation of a regional pilot monitoring network:** A regional monitoring network was established, with agreed protocols ensuring the collection of high-quality data that was accessible to all countries. This network included wells in confined areas as well as outcrop areas, enabling continuous and detailed monitoring of the aquifer.
- **Shared regional database:** A shared database was created, compiling technical information on wells, hydrogeological maps, and flow models. This database was accessible to all countries and linked to major regional databases, facilitating integrated analysis and management of water resources.
- **Active participation in international forums:** Throughout the project, Committee members participated in major international forums, such as conferences on water and transboundary aquifer management. These events not only allowed for the dissemination of the project's results but also fostered the exchange of best practices and experiences with similar projects around the world.
- **Development of national, subnational and local capacities:** Through workshops, local capacities were strengthened among communities and aquifer managers. The reports generated by these events were shared not only with the States but also with local communities, ensuring that knowledge reached all management levels.

In summary, the project not only achieved its technical objectives but also left a lasting legacy in terms of **knowledge management**, facilitating the exchange of technical information and creating lasting cooperation mechanisms among the four countries. Thanks to this approach, the progress achieved can continue to be used and expanded by the participating States, ensuring the long-term protection and sustainable use of the Guarani Aquifer System.

III: Minor Amendments

CONTEXT	
Result Framework	
Components and Cost	
Institutional And Implementation Arrangements	
Financial Management	
Implementation Schedule	
Executing Entity	
Executing Entity Category	

Minor Project Objective Change	
Safeguards	
Risk Analysis	
Increase of GEF Financing up to 5%	
Co-Financing	
Location of Project Activity	
others	

IV: Geographic Coordinates of Project Activities

Location Name	Latitude	Longitude	GeoName ID
Regional Guarani Aquifer	-20,6,654,350,175,521	-49,04,648,784	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Regional Guarani Aquifer	-16.86633611	-53,77,681,944	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Regional Guarani Aquifer	-28,01,379,444	-61,78,026,667	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Regional Guarani Aquifer	-21,06,122,222	-46,92,161,111	

Location Description:

Activity Description:

Location Name	Latitude	Longitude	GeoName ID
Regional Guarani Aquifer	-32,44,224,444	-56,80,663,333	

Location Description:

Activity Description:

V. ANNEX

Uploaded Document

Document Category	Title
M and E Document	PIR REVISION 2024 Guarani - final