

*Implementation of The Guarani Aquifer  
Strategic Action Program: Regional  
Paths for Achieving  
Conjunctive Water Management*

Global Workshop 16 – 17, October 2023

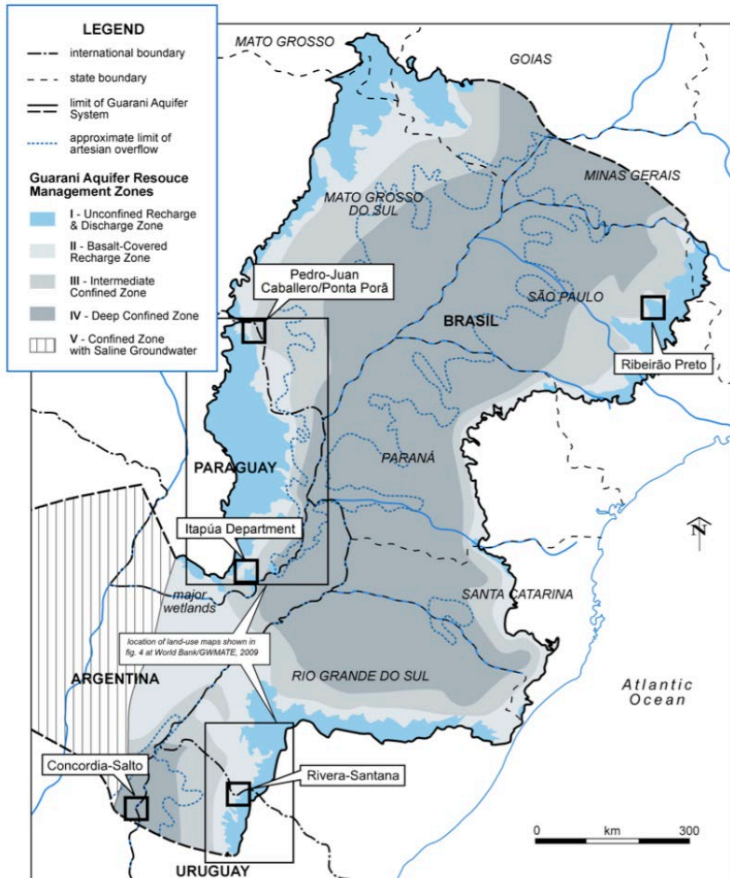
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Sistema  
Acuífero  
Guaraní

SAG





Project: Components and Results implements the Strategic Action Plan (SAP – adopted in 2009 )

Guaraní Aquifer System: estimated 1.087.879 km<sup>2</sup>

1: Consolidating transboundary technical cooperation: technical multi-country committees and cooperation mechanisms recognition. (SAP A-2)

2: Multi-purpose monitoring network, regionally harmonized, and related protocols for sustainable management (SAP A-4)

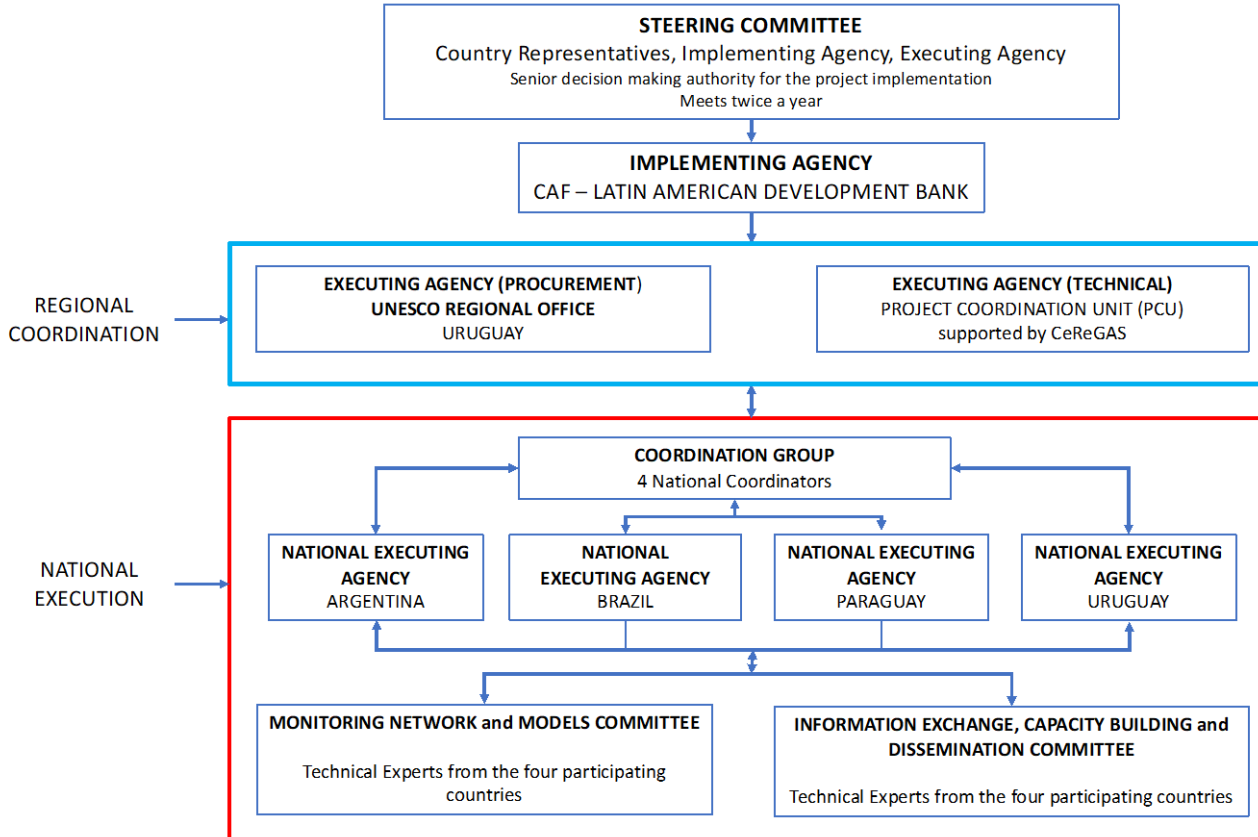
3 Stakeholders' involvement, Strategic Action Program update, dissemination and capacity building (SAP A: 2, 5, 7)

=> **Restoring cross-country interaction**

## 2. Implement Conjunctive Management of Water in a Transboundary Setting

- **Regional, National & Local** engagement with legal framework to enable project implementation locally, monitoring/support nationally (policies) and regionally
- **Agreements** (regional to local) connected to Action Plans (strategic/programs/project) to develop conjunctive management of groundwater and superficial water resources
- **Organizational framework** and strategic planning (SAP) focused on technical approach, with complementary capacities, facilitating decision making do deliver consistent results
- **Capacity building** investments and strengthening **technical interchange** is crucial in transboundary cooperation and considering an ongoing project

## 2.1 Institutional Arrangement



## 2.2 Considering the project and a transboundary setting

- **Regional, National & Local engagement:**
  - Strategically located border municipalities already engaged to develop solutions
  - Basin committees interested in learning about groundwater
  - Ministries representatives (NC) recognize the importance of conjunctive management
  - Engage Decision Makers in creating programs to support projects
- **TDA/SAP update: legal indicators** to develop groundwater regulations, climate change and ecosystem services discussion can influence policies and local projects to conjunctive management
- **Agreements** (regional to local) CIC Plata and Guarani recognizes the need of their interaction. Transboundary Data-sharing System is being discussed in GAS, connected to CIC system and, in 3 countries, National Coord. participate on both projects

### 3. Transboundary Cooperation Projects can foster Conjunctive Management

From a groundwater project perspective:

- Transboundary Cooperation Projects creates a good environment to learn and implement effective projects
- Groundwater management has many important gaps to be overcome in knowledge, regulations and its implementations
- Would it be possible to develop groundwater project committed to conjunctive management implementation?

## 4. Key message for implementing Conjunctive Management



Prefeitura Municipal  
de Araraquara

PALESTRA

**Área de Afloramento do  
Sistema Aquífero Guarani (SAG):  
Por que devemos nos preocupar?**

Dr. Didier Gastmans  
Pesquisador e geólogo do Centro de  
Estudos Ambientais/UNESP - Rio Claro

Auditório da Biblioteca  
Municipal de Araraquara  
Rua Carlos Gomes 1729

09 de Outubro  
às 9h00

### Addressing countries concerns

Approximately 80% of water resource in use in Paraguay  
comes from groundwater

We have to better understand the strategic recharging  
and vulnerable areas of the Aquifer in each region

We must improve groundwater management

**Equivalence between underground and superficial water governance is a key issue to foster conjunctive management from pilot projects to national and transboundary cooperation commitments**



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**Thank You!**  
**¡Muchas Gracias!**  
**Obrigado!**