

**Reporting on global SDG indicator 6.5.2**  
**TEMPLATE of the second cycle for reporting**

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**Content of the template**

The template is divided into four parts:

- Section I - Calculation of SDG indicator 6.5.2
- Section II - Information on each transboundary basin or group of basins
- Section III - General information on transboundary water management at the national level
- Section IV - Final questions

Country name: [Brazil](#)

## I. Calculation of Sustainable Development Goal indicator 6.5.2

### *Methodology*

1. Using the information gathered in section II, the information gathered in this section allows for the calculation of Sustainable Development Goal global indicator 6.5.2, which is defined as the proportion of transboundary basin area with an operational arrangement for water cooperation.
2. The step-by-step monitoring methodology for indicator 6.5.2, developed by UNECE and UNESCO in the framework of UN-Water, should be referred to for details on the necessary data, the definitions and the calculation.<sup>a</sup>
3. The value of the indicator at the national level is derived by adding up the surface area in a country of those transboundary basins (river and lake basins and aquifers) that are covered by an operational arrangement and dividing the area obtained by the aggregate total area in a country of all transboundary basins (both river and lake basins, and aquifers).
4. Transboundary basins are basins of transboundary waters, that is, of any surface waters (notably rivers, lakes) or groundwaters which mark, cross or are located on boundaries between by two or more States. For the purpose of the calculation of this indicator, for a transboundary river or lake, the basin area is determined by the extent of its catchment. For groundwater, the area to be considered is the extent of the aquifer.
5. An “arrangement for water cooperation” is a bilateral or multilateral treaty, convention, agreement or other formal arrangement among riparian countries that provides a framework for cooperation on transboundary water management.
6. For an arrangement to be considered “operational” all the following criteria need to be in place in practice:
  - (a) There is a joint body, joint mechanism or commission (e.g., a river basin organization) for transboundary cooperation (criterion 1);
  - (b) There are regular (at least once per year) formal communications between riparian countries in form of meetings (either at the political or technical level) (criterion 2);
  - (c) Joint objectives, a common strategy, a joint or coordinated management plan, or an action plan have been agreed upon by the riparian countries (criterion 3);
  - (d) There is a regular (at least once per year) exchange of data and information (criterion 4).

### *Calculation of indicator 6.5.2*

7. Please list in the tables below the transboundary basins (rivers and lakes and aquifers) in your country’s territory and provide the following information for each of them:
  - (a) The country/ies with which the basin is shared;
  - (b) The surface area of the basin (the catchment of rivers or lakes and the aquifer in the case of groundwater) within the territory of your country (in square kilometres (km<sup>2</sup>));
  - (c) Whether a map and/or a geographical information system (GIS) shapefile of the basin has been provided;
  - (d) Whether there is an arrangement in force for the basin;
  - (e) The verification of each of the four criteria to assess operability;

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<sup>a</sup> Available from the UN-Water website: <https://www.sdg6monitoring.org/indicators/target-65/indicators652/> (updated version “2020”).

(f) The surface area of the basin within the territory of your country which is covered by a cooperation arrangement that is operational according to the above criteria.

8. In case an operational arrangement is in place only for a sub-basin or a portion of a basin, please list this sub-basin just after the transboundary basin it is part of. In case there is an operational arrangement for the whole basin, do not list sub-basins in the table below.

Table 1  
**Transboundary river or lake basin (please add rows as needed)**

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? <sup>b</sup>	Countries shared with	Surface area of the basin/ sub-basin (in km <sup>2</sup> ) within the territory of the country	Map and/or GIS shapefile provided (yes/no)	Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the basin/ sub-basin (in km <sup>2</sup> ) covered by an operational arrangement within the territory of the country
1. La Plata Basin	Basin	Paraguay, Uruguay, Argentina and Bolivia	1.407.280	Yes	Entirely	Yes	Yes	Yes	Yes	1.407.280
1.1. Quaraí River Basin	Sub-basin	Uruguay	6.603	Yes	Entirely	Yes	Yes	Yes	Yes	6.603
1.2. Apa River Basin	Sub-basin	Paraguay	11.325	Yes	Entirely	No	No	Yes	Yes	0,0
2. Amazon River Basin	Basin	Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela	3.712.354	Yes	Entirely	Yes	Yes	Yes	Yes	3.712.354
3. Mirin Lagoon Basin	Basin	Uruguay	26.257	Yes	Entirely	Yes	Yes	Yes	Yes	26.257
4. Oiapoque River Basin	Basin	French Guyana	12.277	Yes	No	Yes	Yes	No	No	0,0
<b>(A)</b> Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country (in km <sup>2</sup> ) (do not double count sub-basins)										5.145.891
<b>(B)</b> Total surface area of transboundary basins of rivers and lakes within the territory of the country (in km <sup>2</sup> ) (do not double count sub-basins)			5.158.168							

<sup>b</sup> List sub-basins after the basin they belong to.



Table 2

**Transboundary aquifers (please add rows as needed)**

<i>Name of the transboundary aquifer</i>	<i>Countries shared with</i>	<i>Surface area of the aquifer<sup>c</sup> (in km<sup>2</sup>) within the territory of the country</i>	<i>Map and/ or GIS shapefile provided (yes/no)</i>	<i>Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Covered within an arrangement not specific to the aquifer<sup>d</sup> (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the aquifer (in km<sup>2</sup>) covered by an operational arrangement within the territory of the country</i>
Amazonas	Bolivia, Colombia, Ecuador, Peru, Venezuela	2.000.000	Yes	No	No	No	No	No	No	0,0
Serra Geral	Argentina, Paraguay, Uruguay	420.593	Yes	No	No	No	No	No	No	0,0
Bauru-Caiuá	Paraguay	353.374	Yes	No	No	No	No	No	No	0,0
Pantanal	Bolivia, Paraguay	162.318	Yes	No	No	No	No	No	No	0,0
Guarani	Argentina, Paraguay and Uruguay	67.976	Yes	Entirely	Entirely	No	No	No	No	0,0
Aquidauana	Paraguay	73.027	Yes	No	No	No	No	No	No	0,0
Permo-Carbonífero	Uruguay	37.388	Yes	No	No	No	No	No	No	0,0
Litorâneo Sul (Chuí)	Uruguay	26.564	Yes	No	No	No	No	No	No	0,0

<sup>c</sup> For a transboundary aquifer, the extent is derived from the aquifer system delineation which is commonly done relying on information of the subsurface (notably the extent of geological formations). As a general rule, the delineation of aquifer systems is based on the delineation of the extent of the hydraulically connected water-bearing geological formations. Aquifer systems are three-dimensional objects and the aquifer area taken into account is the projection on the land surface of the system. Ideally, when different aquifer systems not hydraulically connected are vertically superposed, the different relevant projected areas are to be considered separately, unless the different aquifer systems are managed conjunctively.

<sup>d</sup> In the text of the agreement or arrangement or in the practice.

Name of the transboundary aquifer	Countries shared with	Surface area of the aquifer <sup>c</sup> (in km <sup>2</sup> ) within the territory of the country	Map and/ or GIS shapefile provided (yes/no)	Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Covered within an arrangement not specific to the aquifer <sup>d</sup> (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the aquifer (in km <sup>2</sup> ) covered by an operational arrangement within the territory of the country
Litorâneo Norte (Costeiro)	French Guyana	5.351	Yes	No	No	No	No	No	No	0,0
Grupo Roraima	Guyana and Venezuela	5.010	Yes	No	No	No	No	No	No	0,0
Boa Vista-Areias Brancas	Guyana	14.849	Yes	No	No	No	No	No	No	0,0
<b>(C)</b> Sub-total: surface area of transboundary aquifers covered by operational arrangements (in km <sup>2</sup> )										0,0
<b>(D)</b> Total surface area of transboundary aquifers (in km <sup>2</sup> )		3.166.450								

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**Indicator value for the country**

A (Km <sup>2</sup> )	B (Km <sup>2</sup> )	C (Km <sup>2</sup> )	D (Km <sup>2</sup> )
5.145.891	5.158.168	0,0	3.166.450

**Surface waters:**

Percentage of surface area of transboundary basins of rivers and lakes covered by an operational arrangement:

$$A/B \times 100 = 99,76\%$$

**Aquifers:**

Percentage of surface area of transboundary aquifers covered by an operational arrangement:

$$C/D \times 100 = 0,0\%$$

**Sustainable Development Goal indicator 6.5.2:**

Percentage of surface area of transboundary basins covered by an operational arrangement:

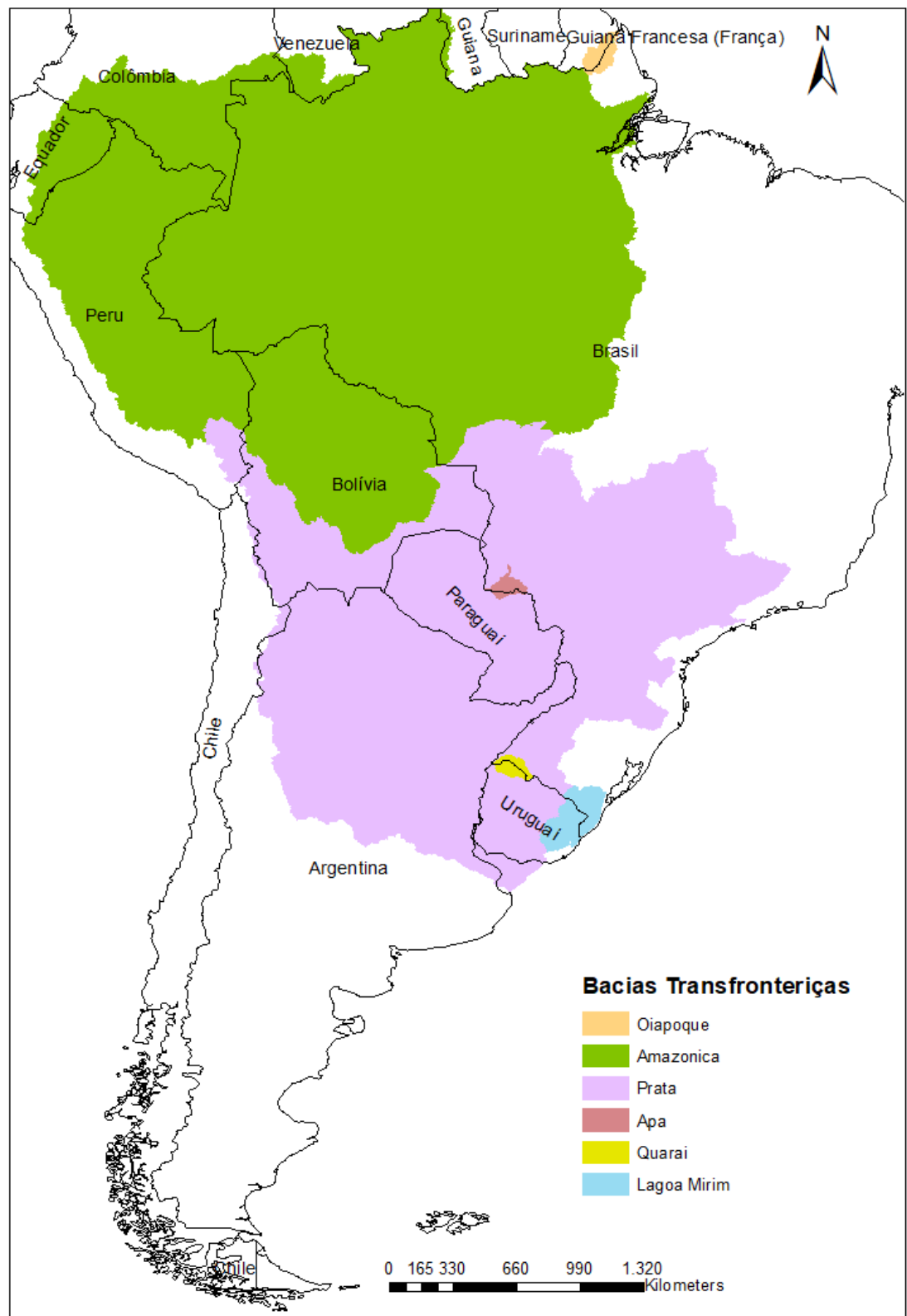
$$((A + C)/(B + D)) \times 100 = 61,82\%$$

**Spatial information**

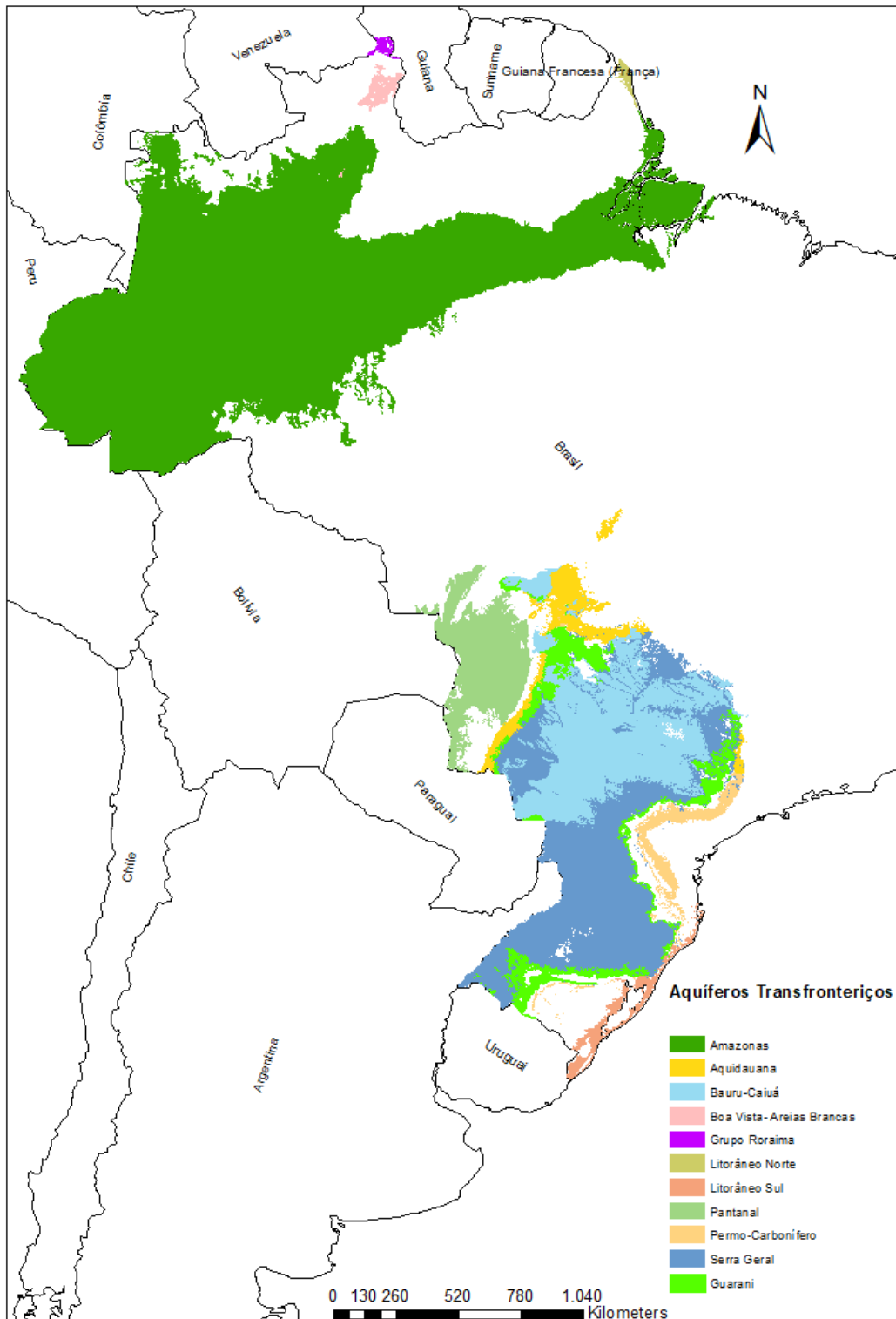
If a map (or maps) of the transboundary surface water catchments and transboundary aquifers (i.e., “transboundary basins”) is available, please consider attaching them. Ideally, shapefiles of the basin and aquifer delineations that can be viewed in GIS should be sent.

The transboundary basins of are shown in Map 1 and the transboundary aquifers in Map 2. The boundaries are available for download in shapefile, at ANA's Metadata Portal: <https://metadados.ana.gov.br/geonetwork/srv/pt/main.home?uuid=54891117-5f06-4cdc-b929-fcd4b50eec08>. To measure the area, it was used the Albers Equal-Area Conic Projection, reference projection in Brazil for area calculation.





Map 1 – Transboundary basins in Brazil. Source: ANA, 2020.  
<https://metadados.ana.gov.br/geonetwork/srv/pt/main.home?uuid=54891117-5f06-4cdc-b929-fcd4b50eec08>



Map 2 – Transboundary aquifers in Brazil. Source: ANA, 2020.  
<https://metadados.ana.gov.br/geonetwork/srv/pt/main.home?uuiid=54891117-5f06-4cdc-b929-fcd4b50eec08>

### Additional information

If the respondent has comments that clarify assumptions or interpretations made for the calculation, or the level of certainty of the spatial information, please write them here:

The transboundary aquifers' polygons used in the calculation correspond to the unconfined zone of the aquifer systems within the Brazilian territory. Thus, it is not the entire area of each aquifer system, just the outcropping areas of the aquifers. This criterion was used because some of the systems are superposed, e.g. Guarani Aquifer System, Serra Geral and Bauru-Caiuá as shown in Map 3.



Map 3 – Guarani Aquifer System – geological characteristics. Source: Informe Final de Hidrogeologia. Consórcio Guarani, 2008.

Does your country have transboundary agreements or arrangements for the protection and/or management of transboundary waters (i.e., rivers, lakes or groundwater), whether bilateral or multilateral?

Yes /No

*If yes, list the bilateral and multilateral agreements or arrangements (listing for each of the countries concerned): [fill in]*

**Transboundary Basins**

1 – Amazon Basin

Amazon Cooperation Treaty	Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Venezuela and Suriname
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2- La Plata Basin

La Plata Basin Treaty	Argentina, Brazil, Bolivia, Paraguay and Uruguay
Cooperation Agreement for the Sustainable Development and the Integrated Management of the Apa River Basin	Brazil and Paraguay
Cooperation Agreement for the Utilization of the Natural Resources and the Development of the Quaraí/Cuareim River Basin	Brazil and Uruguay

3 – Mirim Lagoon Basin

Mirim Lagoon Basin Treaty	Brazil and Uruguai
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**Transboundary Aquifers**

1 – Guarani Aquifer System

Guarani Aquifer Agreement	Argentina, Brazil, Paraguay and Uruguay
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## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are Yesilar.<sup>1</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>2</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**AMAZON BASIN**

List of the riparian States: [Bolivia](#), [Brazil](#), [Colombia](#), [Ecuador](#), [Guyana](#), [Peru](#), [Suriname](#)<sup>3</sup> and [Venezuela](#).

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other
- Please describe: [fill in]
- Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** [43,62%](#)

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

[Comment: The Amazon Cooperation Treaty is the main cooperation agreement for the region; however, Brazil has bilateral agreements with all riparian countries regarding different topics.](#)

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

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<sup>1</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>2</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

<sup>3</sup> Despite being a member of the Amazon Cooperation Treaty Suriname is not within the Amazon Hydrographic Region.

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Please insert the name of the agreement(s) or arrangement(s): **The Amazon Cooperation Treaty.**

Agreement or arrangement is under development

No agreement or arrangement

If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [fill in]

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement? (Please list): **Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname<sup>4</sup> and Venezuela.**

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: **Especially the Amazon Aquifer System**

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

If one or several water uses or sectors, please list (check as appropriate):

**Water uses or sectors**

Industry

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<sup>4</sup> Despite being a member of the Amazon Cooperation Treaty Suriname is not within the Amazon Hydrographic Region.

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- Agriculture
  - Transport (e.g., navigation)
  - Households
  - Energy: hydropower and other energy types
  - Fisheries
  - Tourism
  - Nature protection
  - Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- Dispute and conflict prevention and resolution
- Institutional cooperation (joint bodies)
- Consultation on planned measures
- Mutual assistance

**Topics of cooperation**

- Joint vision and management objectives
- Joint significant water management issues
- Navigation
- Human health
- Environmental protection (ecosystem)
- Water quality
- Water quantity or allocation
- Cooperation in addressing floods
- Cooperation in addressing droughts
- Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

**Joint planning and management**

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Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

Comments: The riparian countries have invested in the integration of infrastructure, such as transport and energy, which could lead to greater development of the region, strengthening the regional trade and integration within the Amazon region.

Considering the wide hydrographic network of the region, current and future integration measures between countries will consider the exceptional water network and its potential for use, which can generate specific agreements.

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

One of the principles of transboundary management is the observance of the sovereignty of States, thus, that bilateral or regional cooperation often develops as a slow process in view of the need for political and institutional articulation at different levels. In this scenario, we can highlight:

1) The difficulty in articulating and coordinating inspection actions with the other countries of the Amazon basin and the limitation of jurisdictions and the powers of each agency or country;

2) The need for an international relationship has demanded intense exchange and cooperation between the National Water Agency (Brazil) and counterpart institutions in other Amazonian countries. Such a procedure sometimes requires efforts and policy and institutional adjustments;

3) Despite ongoing actions, Brazil does not yet have river basin committees in border or transboundary rivers;

4) It is necessary to strengthen the articulation of the eight countries (Brazil, Bolivia, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela) in international forums in the defense of issues relevant to the Amazon.



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(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success?

Strengthened exchange of information; Establishment of formal locus for negotiation related to water resources management; Establishment of the Strategic Agenda (2018) which reflects the priorities of riparian countries aligned with 2030 Agenda; Elaboration of the Transboundary Diagnostic Analysis and the Strategic Action Programme; Capacity building and institutional strengthening; Elaboration of a pilot program to improve the monitoring network; Advances in technical and scientific knowledge related to aquatic ecosystems, the amazon aquifer, water quality and quantity, and; Identification of vulnerable areas to extreme events and climate change.

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*):

<https://www2.senado.leg.br/bdsf/bitstream/handle/id/186318/000406292.pdf?sequence=1>

<http://www.otca-oficial.info/assets/documents/20160629/488ec01c1ab55922e4797d9d49e2934c.pdf>

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or Yesilar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [Bolivia](#), [Brazil](#), [Colombia](#), [Ecuador](#), [Guyana](#), [Peru](#), [Suriname](#)<sup>5</sup> and [Venezuela](#).

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

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<sup>5</sup> Despite being a member of the Amazon Cooperation Treaty Suriname is not within the Amazon Hydrographic Region.

No cooperation

They have observer status

Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

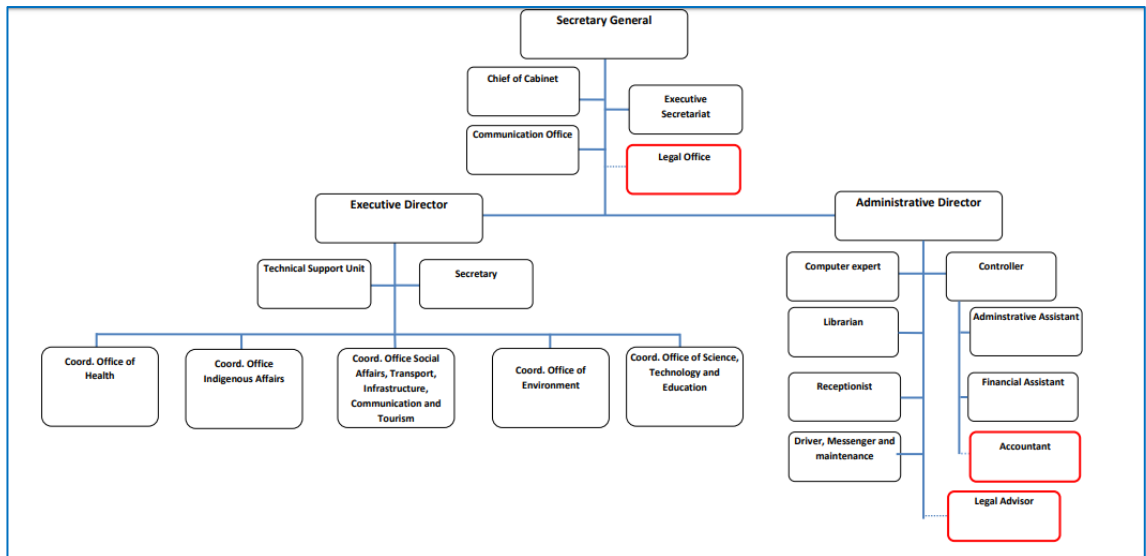
A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):* [Permanent Joint Secretariat – Norms and rules:](http://www.otca-official.info/assets/documents/20160629/eb44e916695c39f6633f92ee1b8f48de.pdf)

[http://www.otca-](http://www.otca-official.info/assets/documents/20160629/eb44e916695c39f6633f92ee1b8f48de.pdf)

[official.info/assets/documents/20160629/eb44e916695c39f6633f92ee1b8f48de.pdf](http://www.otca-official.info/assets/documents/20160629/eb44e916695c39f6633f92ee1b8f48de.pdf)

A subsidiary body or bodies



Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>6</sup>

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

<sup>6</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Preparedness for extreme events, e.g., common early warning and alarm procedures
  - Surveillance and early warning of water related disease
  - Water allocation and/or flow regulation
  - Policy development
  - Control of implementation
  - Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues   
*Please describe, if any:* [fill in]
- Unexpected planning delays   
*Please describe, if any:* **Some countries don't have national water resources plans.**
- Lack of resources   
*Please describe, if true:* **Lack of financial and personal.**
- Lack of mechanism for implementing measures   
*Please describe, if true:* **Different legal and institutional levels among countries.**
- Lack of effective measures   
*Please describe, if true:* [fill in]

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Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[To have an official locus for multilateral negotiations and decisions about water and natural resources management among the riparian countries.](#)

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [Development and agreement of the Amazonian Cooperation Strategic Agenda \(2018\) which reflects the priorities of riparian countries aligned with 2030 Agenda, and also the Strategic Action Program \(2018\).](#)

5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- 
- (b) If yes, how often:
- More than once per year
- Once per year
- Less than once per year
- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [Publicly available at governmental web portals.](#)
- (d) If yes, on what subjects are information and data exchanged?
- Environmental conditions
- Research activities and application of best available techniques
- Emission monitoring data
- Planned measures taken to prevent, control or reduce transboundary impacts
- Point source pollution sources
- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development
- Other subjects (*please list*): [fill in]
- Other comments, e.g. spatial coverage of data and information exchange: [fill in]
- (e) Is there a shared database or information platform?
- Yes /No
- (f) Is the database publicly available?
- Yes /No

*If yes, please provide the web address: [There is no shared information platform. From the Brazil's side, all information is publicly available.](#)*

- (g) What are the main difficulties and challenges to data exchange, if applicable?
- Frequency of exchanges
- Timing of exchanges
- Comparability of data and information
- Limited spatial coverage
- Inadequate resources (technical and/or financial)
- Other (*please describe*): [fill in]
- Additional comments: [The difference in quality and standards of the information in each country.](#)

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [To enable coordinated actions among countries, and more reliability on the water resources management.](#)

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* Amazon Project - The project, initiated by the National Water Agency of Brazil, in collaboration with the Amazon Cooperation Treaty Organization (ACTO) and the Brazilian Cooperation Agency (ABC), proposed a joint action between the Amazon countries aiming the definition of a strategic network to monitor the quantity and quality of water, besides a programme of capacity building to technicians in water resources agencies of these countries.

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [Updated information for proper management; Contribution to monitoring actions in each country.](#)

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(d) Please describe any difficulties experienced with joint monitoring: [Changes in institutional priorities and lack of financial, human and technical resources.](#)

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [Strategic Action Program, 2018.](#)*

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? [Each country has their own standard, usually aligned with UN standards.](#)*

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [The lack of financial and technical resources in some riparian states and lack of interest.](#)*

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary: [The National Water Agency has bilateral projects with all Amazonian countries \(with the exception of Venezuela\) and in these projects the focus has been on donating a Data Collection Platforms for monitoring hydrological data and donating equipment for the establishment of Situation Rooms, which aims to monitor critical events such as droughts and floods.](#)*

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13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>7</sup>

Public involvement

Other (please specify): [fill in]

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>8</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>9</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

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<sup>7</sup> Or, where applicable, aquifer management plans.

<sup>8</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>9</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.



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**Name of the transboundary basin,-sub-basin, part of a basin or group of basins: LA PLATA BASIN**

List of the riparian States: [Argentina](#), [Bolivia](#), [Brazil](#), [Paraguay](#) e [Uruguay](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other
- Please describe: [fill in]
- Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: 16,54%**

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

- One or more agreements or arrangements exist and are in force
- Agreement or arrangement developed but not in force
- Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s)*

[La Plata Basin Treaty](#), in force since 14/08/1970.

[Asunción Declaration on the Uses of International Rivers \(1971\)](#)

[Treaty for the Development of the Water Resources Exploitation within the Uruguay River and its Affluent the Pepiri-Guazu River \(1980\)](#)

[Complementary Adjustment to the Technical and Scientific Cooperation Agreement for the Implementation of the Integrated Water Resources Management Project in the Upper Paraguay River Basin, signed by Bolivia and Brazil, in La Paz on 11/15/2001. The Adjustment "aims to develop a hydrological monitoring system in the upper Paraguay River basin".](#)

[Acuerdo de Santa Cruz de La Sierra Sobre Transporte Fluvial por la Hidrovia Paraguay-Paraná \(1992\)](#)

- Agreement or arrangement is under development
- No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [fill in]*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

---

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [Argentina](#), [Bolivia](#), [Brazil](#), [Paraguay](#) e [Uruguay](#)

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

Other (please list): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

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Consultation on planned measures	<input checked="" type="checkbox"/>
Mutual assistance	<input checked="" type="checkbox"/>
<b>Topics of cooperation</b>	
Joint vision and management objectives	<input checked="" type="checkbox"/>
Joint significant water management issues	<input checked="" type="checkbox"/>
Navigation	<input checked="" type="checkbox"/>
Human health	<input checked="" type="checkbox"/>
Environmental protection (ecosystem)	<input checked="" type="checkbox"/>
Water quality	<input checked="" type="checkbox"/>
Water quantity or allocation	<input checked="" type="checkbox"/>
Cooperation in addressing floods	<input checked="" type="checkbox"/>
Cooperation in addressing droughts	<input checked="" type="checkbox"/>
Climate change adaptation	<input checked="" type="checkbox"/>
<b>Monitoring and exchange</b>	
Joint assessments	<input checked="" type="checkbox"/>
Data collection and exchange	<input checked="" type="checkbox"/>
Joint monitoring	<input type="checkbox"/>
Maintenance of joint pollution inventories	<input type="checkbox"/>
Elaboration of joint water quality objectives	<input type="checkbox"/>
Common early warning and alarm procedures	<input checked="" type="checkbox"/>
Exchange of experience between riparian States	<input checked="" type="checkbox"/>
Exchange of information on planned measures	<input checked="" type="checkbox"/>
<b>Joint planning and management</b>	
Development of joint regulations on specific topics	<input checked="" type="checkbox"/>
Development of international or joint river, lake or aquifer basin management or action plans	<input checked="" type="checkbox"/>
Management of shared infrastructure	<input checked="" type="checkbox"/>
Development of shared infrastructure	<input checked="" type="checkbox"/>

Comments: Due to the strategic importance of water resources in the La Plata Basin for the five riparian states, topics addressed in the La Plata Basin Treaty are also considered in bilateral cooperation. For decades, Brazil has had bilateral agreements with Argentina, Bolivia, Paraguay and Uruguay on different topics on the development agenda.

It is noteworthy that the hydroelectric and fluvial transport potential is fundamental for the regional economy and, above all, for economic integration. These countries have, for some time, carried out shared management in the areas of navigation (Hidrovia Paraná-Paraguay) and hydroelectric energy production (Itaipu Plant). In addition, the water agenda is directly inserted in the agricultural sectors of the countries of La Plata Basin.

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Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

Other difficulties and challenges:

Institutional and priority changes in each country; Conflicts of interest in the shared use of water between power generation, navigation and tourism; Difficulty in integrating and coordinating inspection measures between states; Problems in the maintenance of shared infrastructures that can compromise the water quality and multiple uses; Integration with sub-national strategies and priorities.

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? **Strengthened exchange of information; A formal locus for negotiation, among riparian states, related to water resources management.**

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): <https://www2.camara.leg.br/legin/fed/decret/1970-1979/decreto-67084-19-agosto-1970-408584-publicacaooriginal-1-pe.html>

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

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Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [Argentina](#), [Bolivia](#), [Brazil](#), [Paraguay e Uruguay](#)

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):*

[Joint Permanent Secretariat – CIC Plata](#)

The Intergovernmental Coordinating Committee of the Countries of the La Plata Basin (CIC) was recognized by the aforementioned Treaty as the permanent joint body of the La Plata Basin, charged with promoting, coordinating and monitoring the progress of multinational actions aimed at the integrated development of the La Plata Basin. The CIC is also in charge of promoting technical and financial assistance with the support of international organizations, as well as executing the decisions adopted by the Ministers of Foreign Affairs of each of the countries that are part of the committee (art. 3, of the Treaty).

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):*

[Financial Fund for the Development of the Countries of the La Plata basin – FONPLATA](#)

FONPLATA is an entity with international legal status, which was created to act as the financial body of the Treaty on the La Plata basin. Its mission is to give technical and financial support for studies, projects, programmes and initiatives, which work to promote the harmonious development and physical integration of the member countries of the La Plata basin.

[CIH - Intergovernmental Committee of the Paraguay-Parana Waterway – Joint body responsible for navigation of the Paraná and Paraguay rivers. All riparian states of the Plata Basin Treaty are part of CIH.](#)

Other features (*please list*): [fill in]

- 
- (g) What are the tasks and activities of this joint body or mechanism?<sup>10</sup>
- |   |                                     |
|---|-------------------------------------|
| Identification of pollution sources   | <input type="checkbox"/>            |
| Data collection and exchange  | <input checked="" type="checkbox"/> |
| Joint monitoring  | <input checked="" type="checkbox"/> |
| Maintenance of joint pollution inventories  | <input type="checkbox"/>            |
| Setting emission limits   | <input type="checkbox"/>            |
| Elaboration of joint water quality objectives   | <input type="checkbox"/>            |
| Management and prevention of flood or drought risks   | <input checked="" type="checkbox"/> |
| Preparedness for extreme events, e.g., common early warning and alarm procedures                  | <input checked="" type="checkbox"/> |
| Surveillance and early warning of water related disease   | <input type="checkbox"/>            |
| Water allocation and/or flow regulation   | <input checked="" type="checkbox"/> |
| Policy development  | <input checked="" type="checkbox"/> |
| Control of implementation   | <input type="checkbox"/>            |
| Exchange of experience between riparian States  | <input checked="" type="checkbox"/> |
| Exchange of information on existing and planned uses of water and related installations           | <input type="checkbox"/>            |
| Settling of differences and conflicts   | <input checked="" type="checkbox"/> |
| Consultations on planned measures   | <input checked="" type="checkbox"/> |
| Exchange of information on best available technology  | <input type="checkbox"/>            |
| Participation in transboundary EIA  | <input type="checkbox"/>            |
| Development of river, lake or aquifer basin management or action plans                            | <input checked="" type="checkbox"/> |
| Management of shared infrastructure   | <input checked="" type="checkbox"/> |
| Addressing hydromorphological alterations   | <input type="checkbox"/>            |
| Climate change adaptation   | <input checked="" type="checkbox"/> |
| Joint communication strategy  | <input checked="" type="checkbox"/> |
| Basin-wide or joint public participation and consultation of, for example, basin management plans | <input checked="" type="checkbox"/> |
| Joint resources to support transboundary cooperation  | <input checked="" type="checkbox"/> |
| Capacity-building   | <input checked="" type="checkbox"/> |
| Any other tasks ( <i>please list</i> ): [fill in]   |                                     |
- (h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

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<sup>10</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

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Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* Institutional changes

Lack of resources

*Please describe, if true:* Financial and personnel

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* Improve real-time data sharing

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?

1) Official and multilateral environment for negotiations and decision-making between riparian states;

2) Improved governance of the entire basin;

3) Implementation of relevant projects. Between 2013 and 2016, the Committee created a Marco Program (PM) for the sustainable management of water resources in the La Plata Basin, in response to the impacts of natural variations and climate change. A year later, it was identified the need to continue working in joint actions, through the analysis of cross-border assessment and the elaboration of the Strategic Actions Program. Today there is a GEF Medium Size Project (MSP) in place that aim to prepare the basis for the implementation of the Strategic Action Programme (SAP). The project is led by CIC Plata, in cooperation with the Organization of American States (OAS) and CAF - Development Bank of Latin America.

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

- 
4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:*

Strategic Action Programme of La Plata Basin: [http://cicplata.org/wp-content/uploads/2017/09/adt\\_pae\\_resumo\\_executivo.pdf](http://cicplata.org/wp-content/uploads/2017/09/adt_pae_resumo_executivo.pdf)

GEF Pantanal/Alto Paraguay - Transboundary cooperation for the conservation, sustainable development and integrated management of the Pantanal - Upper Paraguay River Basin. Project pre-approved for the GEF 7<sup>th</sup> cycle.

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [Publicly available at governmental web portals, such as http://www.snirh.gov.br/](http://www.snirh.gov.br/)

- (d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)



- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development
- Other subjects (*please list*): [fill in]
- Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: <http://sstd.cicplata.org/sstd/>

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [Data acquisition costs, lack of equipment and differences in data standards.](#)

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [Enable an integrated planning and coordinated actions between riparian countries; Have a more reliable water resources management.](#)

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Hydrological	Ecological	Chemical
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [More frequently updated information and contribution to monitoring actions in riparian states](#)

(d) Please describe any difficulties experienced with joint monitoring: [Institutional and priority changes can lead to weakened technical, human and financial conditions for the execution of many of the joint actions between countries, whether bilateral or regional.](#)

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [La Plata Basin Strategic Action Program was finished in 2016 and has a 20-year planning horizon. It includes 6 strategic areas, 13 components and 28 strategic actions. The set of strategic actions and 130 activities that are part of them includes interventions proposals and management recommendations to contribute to the sustainable development of the basin.](#)

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [Each country has they own standard, usually aligned with the UN standards.](#)

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

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Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* Lack of technical and financial resources and the level of priority given to this type of measure.

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:* Within bilateral cooperation actions, Brazilian National Water Agency has developed data and knowledge exchange initiatives, capacity building and provided support for the installation of hydrological situations rooms.

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*

The Intergovernmental Coordination Committee of La Plata Basin (CIC) has representatives from each of the five member countries. Each state has two representatives and alternates (political and technical). From the Brazil's side the Ministry of Foreign Affairs is responsible for the political representation, endowed with full powers by their respective government. And the Ministry of Regional Development and the Ministry of the Environment the technical representation.

It is important to highlight that under the International Hydrological Programme – IHP-LAC was established, on November 2019, the Working Group on water resources in the La Plata Basin. The WG has the following objectives:

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- Promote, develop and continue thematic studies and research of common interest that contribute to the integrated management of water resources in the La Plata Basin; and

- To gather and make compatible the advances obtained by other programs and initiatives of the IHP and by the UNESCO-Water family, in relation to La Plata basin.

Intergovernmental organizations	<input checked="" type="checkbox"/>
Private sectors organizations or associations	<input type="checkbox"/>
Water user groups or associations	<input type="checkbox"/>
Academic or research institutions	<input checked="" type="checkbox"/>
Other non-governmental organizations	<input checked="" type="checkbox"/>
General public	<input type="checkbox"/>
Other (please specify): [fill in]	
Availability of information to the public	<input checked="" type="checkbox"/>
Consultation on planned measures or river basin management plans <sup>11</sup>	<input type="checkbox"/>
Public involvement	<input type="checkbox"/>
Other (please specify): [fill in]	

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>12</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>13</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

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<sup>11</sup> Or, where applicable, aquifer management plans.

<sup>12</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>13</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

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**Name of the transboundary basin,-sub-basin, part of a basin or group of basins: [MIRIM LAGOON BASIN](#)**

List of the riparian States: [Brazil and Uruguay](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other
- Please describe: [fill in]
- Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [0,30%](#)**

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

- One or more agreements or arrangements exist and are in force
- Agreement or arrangement developed but not in force
- Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s)*

**[The Cooperation Treaty for the Use of Natural Resources and the Development of the Mirim Lagoon Basin - Mirim Lagoon Basin Treaty](#)**

- Agreement or arrangement is under development
- No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [fill in]*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [In addition to the Mirim Lagoon itself, the hydrographic basin also includes the São Gonçalo Canal - which connects to the Lagoa dos Patos and](#)

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therefore gives access to the sea, the Arroio Chuí and the Jaguarão River - both also with contiguous stretches with Uruguay.

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations?.

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [Brazil and Uruguay](#)

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

If one or several water uses or sectors, please list (check as appropriate):

**Water uses or sectors**

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

Other (please list): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

- 
- Navigation
  - Human health
  - Environmental protection (ecosystem)
  - Water quality
  - Water quantity or allocation
  - Cooperation in addressing floods
  - Cooperation in addressing droughts
  - Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

**Joint planning and management**

- Development of joint regulations on specific topics
- Development of international or joint river, lake or aquifer basin management or action plans
- Management of shared infrastructure
- Development of shared infrastructure

The construction of the São Gonçalo dam aimed to prevent the intrusion of ocean waters (salinization) in the Mirim Lagoon, in order to guarantee the water quality for urban supply, animal feed and irrigation of crops.

The Mercosur waterway has dams equipped with locks, beacons and signs installed, being a two-way waterway between Brazil and Uruguay, and an important route for the commercial exchange between the countries.

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

- Aligning implementation of agreement or arrangement with national laws, policies and programmes
- Aligning implementation of agreement or arrangement with regional laws, policies and programmes
- Lack of financial resources
- Insufficient human capacity

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Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

**Additional difficulties:**

The existence of two jurisdictions in the territory of the basin (state and Federal domain). The surface waters of Lagoa Mirim, Rio Jaguarão and Canal São Gonçalo are under Federal jurisdiction and the waters that flow into those water bodies are under state jurisdiction. The configured dual domain (federal and states) intensifies the complexity of integrated and decentralized river basin management, increasing institutional interfaces.

Since a major part of the region is a floodplain, it been difficult to establish precise territorial limits;

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success?

Strengthened exchange of information and the establishment of a formal locus for negotiation, between riparian states, related to water resources management.

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*):

<https://wp.ufpel.edu.br/alm/files/2019/07/Tratado-de-Coopera%C3%A7%C3%A3o-para-o-Aproveitamento-dos-Recursos-Naturais-1977.pdf>

<https://www25.senado.leg.br/web/atividade/materias/-/materia/17043>

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No



---

(c) Which States (including your own) are members of the joint body or mechanism? *(Please list)*: [Brazil and Uruguay](#)

(d) Are there any riparian States that are not members of the joint body or mechanism? *(please list)*: [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other *(please describe)*: [fill in]

(f) Does the joint body or mechanism have any of the following features *(please tick the ones applicable)*?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):*

[Joint Permanent Secretariat called the Mixed Brazilian-Uruguayan Commission for the Development of the Mirim Lagoon Basin \(CLM\) - created by the Mirim Lagoon Basin Treaty. From the Brazil's side the Ministry of Foreign Affairs is responsible for the political representation, endowed with full powers by their respective government. And the Ministry of Regional Development for the technical representation.](#)

[The CLM is dedicated to studying technical, scientific and social issues related to the development of the basin and supervising the execution of common projects and works and coordinating their operation. The Commission also contributes with suggestions of policies, norms or measures for the development of the region and for the conservation and exploitation of natural resources.](#)

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):*

1) [The Mirim Lagoon Basin Development Agency \(ALM\).](#)

[The Agency is focused on the development the basin – Brazilian side - and as an operational and support body for the Brazilian Section of the CLM. Its mission is “to promote studies, research and surveys with a view to subsidiary programs and projects that develop the integrated and sustainable development of the region, under the Lagoa Mirim Treaty. Currently, ALM is responsible for the operation and maintenance of the São Gonçalo Canal Lock Dam, for the administration of the Dam and for the Irrigation District of Arroio Chasqueiro and for the operation of part of the Hydrometeorological and Water Quality Network on the Brazilian side of the Mirim Lagoon.](#)

Other features *(please list)*: [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>14</sup>

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<sup>14</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Identification of pollution sources
  - Data collection and exchange
  - Joint monitoring
  - Maintenance of joint pollution inventories
  - Setting emission limits
  - Elaboration of joint water quality objectives
  - Management and prevention of flood or drought risks
  - Preparedness for extreme events, e.g., common early warning and alarm procedures
  - Surveillance and early warning of water related disease
  - Water allocation and/or flow regulation
  - Policy development
  - Control of implementation
  - Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues
- Please describe, if any:* [fill in]
- Unexpected planning delays
- Please describe, if any:* [Institutional and priority changes](#)

- 
- Lack of resources
- Please describe, if true:* [Financial and Personnel](#)
- Lack of mechanism for implementing measures
- Please describe, if true:* [Different legal and institutional levels between riparian states.](#)
- Lack of effective measures
- Please describe, if true:* [fill in]
- Unexpected extreme events
- Please describe, if any:* [fill in]
- Lack of information and reliable forecasts
- Please describe, if any:* [fill in]
- Others (*please list and describe, as appropriate*): [fill in]
- (i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?  
 Yes /No
- If yes, how frequently does it meet?
- More than once per year
- Once per year
- Less than once per year
- (j) What are the main achievements with regards to the joint body or mechanism?
- 1) [Official and bilateral environment for negotiations and decisions between countries;](#)
- 2) [Level of institutionalization reached by CLM;](#)
- 3) [Increased basin governance;](#)
- 4) [Creation of working groups, responsible for management guidelines based on the consideration of local challenges and potential, as well as the demands of users;](#)
- 5) [Realization of meetings with the sub national river basin committee, ensuring decentralized participation;](#)
- 6) [Implementation of projects in the region.](#)
- (k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?  
 Yes /No
- If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]
4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?  
 Yes /No
- If yes, please provide further details:*

Pilot Project for the Integrated and Sustainable Transboundary Water Resources Management in the Mirim Lagoon and Quarai River Basins, established in 2004, to be implemented by the bilateral mixed commissions of the two basins, as well as by the National Water Resources Management System (Brazil) and by the Water Resources Management System of the Rio Grande do Sul State (Brazil).

In June 2020 it was pre-approved a GEF MSP entitled “Binational and integrated water resources management in the Merin Lagoon Basin and Coastal Lagoons” that aims to elaborate a TDA and an SAP for the region. The GEF Agency if FAO and the project executing entities are the ALM(Brazil) and DINAGUA (Uruguay).

5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

- Regulation of urbanization, deforestation, and sand and gravel extraction.
- Environmental flow norms, including consideration of levels and seasonality
- Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals
- Water-related species and habitats protection
- Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- (b) If yes, how often:

- More than once per year
- Once per year
- Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [Publicly available at governmental web portals, such as http://www.snirh.gov.br/](http://www.snirh.gov.br/)

- (d) If yes, on what subjects are information and data exchanged?

- Environmental conditions
- Research activities and application of best available techniques
- Emission monitoring data
- Planned measures taken to prevent, control or reduce transboundary impacts
- Point source pollution sources
- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions

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Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: From Brazil's side: [www.ana.gov.br](http://www.ana.gov.br); [www.inpe.br](http://www.inpe.br); [www.inmet.gov.br](http://www.inmet.gov.br)

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [Data acquisition costs and differences in standards and data quality of each country.](#)

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [Allow for more precise and coordinated actions among the countries. More reliable water resources management and more effective results. Strengthened political, institutional and technical articulation between institutions of the two countries.](#)

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

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	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [More frequently updated information and contribution to monitoring measures in each country.](#)

(d) Please describe any difficulties experienced with joint monitoring: [Institutional and priority changes and insufficient financial, technical and human resources.](#)

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? [Each country has they own standard, usually aligned with the UN standards.](#)*

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

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Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin

- 
- management plans<sup>15</sup>
- Public involvement
- Other (*please specify*): [fill in]

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>16</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>17</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**OIAPOQUE RIVER BASIN**

List of the riparian States: [Brazil and French Guyana](#).

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other
- Please describe: [fill in]
- Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** **0,14%**

- Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?  
 One or more agreements or arrangements exist and are in force

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<sup>15</sup> Or, where applicable, aquifer management plans.

<sup>16</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>17</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.



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Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s) [fill in]*

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation:*

There are no agreements for the Oiapoque River basin. Negotiation for technical, scientific and technological cooperation between Brazil and French Guiana have been done in the past, with no records of actual project execution.

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

Industry

- 
- Agriculture
  - Transport (e.g., navigation)
  - Households
  - Energy: hydropower and other energy types
  - Fisheries
  - Tourism
  - Nature protection
  - Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- Dispute and conflict prevention and resolution
- Institutional cooperation (joint bodies)
- Consultation on planned measures
- Mutual assistance

**Topics of cooperation**

- Joint vision and management objectives
- Joint significant water management issues
- Navigation
- Human health
- Environmental protection (ecosystem)
- Water quality
- Water quantity or allocation
- Cooperation in addressing floods
- Cooperation in addressing droughts
- Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

**Joint planning and management**

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Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* Currently, transboundary issues between Brazil and French Guiana, covering the watershed of the River Oiapoque, have been discussed within the framework of the Joint Commission for Cross-Border Cooperation (CMT) and the Council of the River Oiapoque.

CMT meets every two years and seeks to strengthen socioeconomic relations between Amapá, in Brazil, and the overseas department of French Guiana, in France, to support the development of the border region. Among the topics covered are health, education, security, economic development, migration issues and the environment. The last meeting took place in July 2019, in Amapá.

The Rio Oiapoque Council is a consultative and parity body, instituted by the Declaration of Intent between the French Government and the Brazilian Government, signed in Paris on December 14, 2012.

**Where there is a joint body or mechanism**

---

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (please tick one)?

- Plenipotentiaries
- Bilateral commission
- Basin or similar commission
- Expert group meeting or meeting of national focal points
- Other (please describe): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (Please list): [Brazil and French Guyana](#)

(d) Are there any riparian States that are not members of the joint body or mechanism? (please list): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

- No cooperation
- They have observer status
- Other (please describe): [fill in]

(f) Does the joint body or mechanism have any of the following features (please tick the ones applicable)?

A secretariat

If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe): [fill in]

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [fill in]

Other features (please list): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>18</sup>

- Identification of pollution sources
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Setting emission limits
- Elaboration of joint water quality objectives
- Management and prevention of flood or drought risks

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<sup>18</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Preparedness for extreme events, e.g., common early warning and alarm procedures
  - Surveillance and early warning of water related disease
  - Water allocation and/or flow regulation
  - Policy development
  - Control of implementation
  - Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues   
*Please describe, if any:* [fill in]
- Unexpected planning delays   
*Please describe, if any:* [fill in]
- Lack of resources   
*Please describe, if true:* [fill in]
- Lack of mechanism for implementing measures   
*Please describe, if true:* [fill in]
- Lack of effective measures   
*Please describe, if true:* [fill in]
- Unexpected extreme events

---

Please describe, if any: [fill in]

Lack of information and reliable forecasts

Please describe, if any: [fill in]

Others (please list and describe, as appropriate): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year – every 2 years

(j) What are the main achievements with regards to the joint body or mechanism?  
[Agreement on the construction of a bridge over the Oiapoque River.](#)

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (please describe): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

---

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

(d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address: From Brazil's side data are publicly available at governmental web portals, such as <http://www.snirh.gov.br/>*

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: *Lack of priority to address the issue of water resources in the CMT, lack of agreement between countries and lack of a water resources plan for the hydrographic basin of the Oiapoque River.*

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?



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Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? [fill in]*

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary: [fill in]*

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism: [fill in]*

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

- 
- Academic or research institutions
  - Other non-governmental organizations
  - General public
  - Other (please specify): [fill in]
  - Availability of information to the public
  - Consultation on planned measures or river basin management plans<sup>19</sup>
  - Public involvement
  - Other (*please specify*): [fill in]

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<sup>19</sup> Or, where applicable, aquifer management plans.

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**II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)**

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>20</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>21</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**QUARAI RIVER BASIN (LA PLATA SUB-BASIN)**

List of the riparian States: [Brazil and Uruguay](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other
- Please describe: [fill in]
- Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: 0,08%**

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

- One or more agreements or arrangements exist and are in force
- Agreement or arrangement developed but not in force
- Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s):*

**Quarai River Basin Agreement**

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<sup>20</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>21</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

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The Cooperation Agreement for the Use of Natural Resources and the Development of the Quaraí River Basin signed between Brazil and Uruguay, on March 11, 1991, and complemented by the Complementary Adjustment to the Cooperation Agreement, of May 6, 1997.

The Agreement came into force with the Decree No. 657, of September 24, 1992. It aims, among other objectives, the rational and equitable use of water for domestic, urban, agricultural and industrial purposes; regularization of flows and flood control; the establishment of irrigation and drainage systems for agricultural purposes; and the solution of problems arising from the misuse of water, adequate use of mineral, plant and animal resources; management, proper use, recovery and conservation of water resources, considering the characteristics of the Basin; and management, conservation, proper use and recovery of the region's soils, among others.

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [fill in]*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations?

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [Quaraí is a sub-basin of La Plata Basin](#)

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [Brazil and Uruguay](#)

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

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*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

- Industry
- Agriculture
- Transport (e.g., navigation)
- Households
- Energy: hydropower and other energy types
- Fisheries
- Tourism
- Nature protection
- Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- Dispute and conflict prevention and resolution
- Institutional cooperation (joint bodies)
- Consultation on planned measures
- Mutual assistance

**Topics of cooperation**

- Joint vision and management objectives
- Joint significant water management issues
- Navigation
- Human health
- Environmental protection (ecosystem)
- Water quality
- Water quantity or allocation
- Cooperation in addressing floods
- Cooperation in addressing droughts
- Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures

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Exchange of experience between riparian States

Exchange of information on planned measures

**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*):

Comments:

**Additional difficulties**

1) The existence of two jurisdictions in the territory of the basin (state and Federal water domains). The configured dual water jurisdictions (federal and states) intensifies the complexity of integrated and decentralized river basin management, increasing institutional interfaces.

2) The control and inspection of water uses and abstractions of water still an obstacle to be overcome. Although there are inspection campaigns on the Brazilian side, the difficulty of articulating and coordinating actions with Uruguay for this purpose needs to move forward. The limitation of the jurisdictions and powers of each body end up allowing limits of action, which constitutes a risk for the adequate use of water;

4) Pollution of the Quaraí river basin due to domestic and industrial sewage released mainly by the municipalities of Quaraí and Barra do Quaraí; waste deposits and contamination by pesticides from crops.

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success?

The participation of local interest groups in the governance structure, in dialogue with social organizations and state bodies in the riparian countries;

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The assessment of specific demands that are in line with the principle of state sovereignty over the territory;

Creation of a Local Coordination Committee;

Data Exchange.

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*):

[https://wp.ufpel.edu.br/alm/?page\\_id=1981](https://wp.ufpel.edu.br/alm/?page_id=1981)

<https://wp.ufpel.edu.br/alm/files/2019/07/Vig%C3%A4ncia-Provis%C3%B3ria-do-Acordo-de-Coopera%C3%A7%C3%A3o-para-o-Aproveitamento-dos-Recursos-Naturais-e-o-Desenvolvimento-da-Bacia-do-Rio-Quara%C3%AD-1991.pdf>

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [Brazil and Uruguay](#)

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):

Joint Permanent Secretariat called the Brazilian-Uruguayan Joint Commission for the Development of the Quaraí River Basin - CRQ, with the following functions: to study the technical, scientific, economic and social issues related to the development of the Quaraí River basin; to present to the government's proposals for projects and activities to be carried out, and; to coordinate the rational and equitable management, the use, recovery and conservation of the basin's water resources, as well as its other natural resources.

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): Local Coordination Committee (CCL) or Quaraí River Basin Committee



Other features (please list): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>22</sup>

- Identification of pollution sources
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Setting emission limits
- Elaboration of joint water quality objectives
- Management and prevention of flood or drought risks
- Preparedness for extreme events, e.g., common early warning and alarm procedures
- Surveillance and early warning of water related disease
- Water allocation and/or flow regulation
- Policy development
- Control of implementation

<sup>22</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.



- 
- Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building

Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* **Institutional and priority changes**

Lack of resources

*Please describe, if true:* **Financial and personnel**

Lack of mechanism for implementing measures

*Please describe, if true:* **Differences in legal and institutional capacities**

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

---

If yes, how frequently does it meet?

- More than once per year
- Once per year
- Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?

- 1) Official and bilateral environment for negotiations and decisions
- 2) Increased basin governance;
- 3) Joint monitoring;
- 4) Capacity building;
- 5) Establishment of a regulatory framework for the Water Use of the Quaraí River, through a Resolution of the National Water Agency, updated in 2014;
- 6) Formation of working groups in different areas to solve specific problems in the region (sanitation, training, water reservoir and Brazil and Uruguay articulation);
- 7) Increased exchange of information and experiences;
- 8) Participatory process in action planning; and
- 9) Implementation of projects for the development of the Quaraí River basin.

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism? [fill in]*

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:*

Strategic Action Programme for La Plata Basin.

Beyond that, in 2004, the Pilot Project for Integrated and Sustainable Transboundary Water Resources Management in the Lagoa Mirim and Rio Quaraí Basins was defined, to be implemented by the bilateral mixed commissions of the two basins, as well as by national and the State Water Resources Management Systems (Rio Grande do Sul).

In 2006, it started a series of field works linked to the research project in the Cuareim / Quaraí river basin, financed by the European Union, called TwinLatin - twinning of European and Latin American hydrographic basins for research that enable the sustainable management of water resources . This project aims to evaluate the implementation of the European Union's objectives for the management of water resources, the construction of methods and lines of action, guided by the European Union's Framework Directive on Water. A discretized hydrological model was elaborated, considering, for the first time, data from an extensive network of climatological, pluviometric and fluviometric stations in both countries. This model considers all existing reservoirs in the basin and relates to irrigated crops with their water sources, allowing the use of a consistent calibration. In addition, there was a lot of information about water quality.

The creation of the River Quaraí River Basin Management Committee, in 2008, which includes the participation of water users in the region, the population of the basin and the public bodies involved. Its effective installation took place in 2009.

In 2010, it started to elaborate a Water Resources Plan for a basin that includes, among other aspects, an integration of the procedures related to the framing of water bodies, collection and collection of fees for the use of water resources, as well as a integration of standards for environmental licensing processes and other aspects of the environmental agenda. As basic sources used for TwinLatin reports, a previous study on a basin and census information and collected by bodies active in the basin, such as the person responsible for basic sanitation and preferences.

The ANA-DINÁGUA Project for Transboundary Monitoring of the Hydrographic Basins of Rio Quaraí and Lagoa Mirim, completed in 2018, with the objective of carrying out an installation of hydrometeorological stations in the regions, acquisition of acoustic meters and quality probes, training and qualification of technicians of the DINAGUA, joint monitoring, implementation of the situation room and shared database.

5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [Publicly available at governmental web portals, such as http://www.snirh.gov.br/](http://www.snirh.gov.br/)

- (d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: [Publicly available at governmental web portals, such as http://www.snirh.gov.br/](http://www.snirh.gov.br/) and <http://sstd.cicplata.org/sstd/>

(g) What are the main difficulties and challenges to data exchange, if applicable?

- Frequency of exchanges
- Timing of exchanges
- Comparability of data and information
- Limited spatial coverage
- Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [Data acquisition costs and differences in data standard and quality.](#)

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*):

[Allow for more precise and coordinated actions among the countries. Count on more reliable water resources management and more effective results. Strengthen political, institutional and technical articulation between institutions in the two countries](#)

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [More frequently updated information and contribution to monitoring measures in each country](#)

(d) Please describe any difficulties experienced with joint monitoring: [Institutional and priority changes and insufficient financial, technical and human resources.](#)

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? [Each country has they own standard, usually aligned with the UN standards.](#)*

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10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication – [Situation Room](#)

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:* [fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

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Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>23</sup>

Public involvement

Other (*please specify*): [fill in]

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>24</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>25</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:** **APA RIVER BASIN (LA PLATA SUB-BASIN)**

List of the riparian States: **Brazil and Paraguay**

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

Unconfined aquifer connected to a river or lake

Unconfined aquifer with no or limited relation with surface water

Confined aquifer connected to surface water

Confined aquifer with no or limited relation with surface water

Other

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** [fill in]

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<sup>23</sup> Or, where applicable, aquifer management plans.

<sup>24</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>25</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

- 
1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s)*

**Cooperation Agreement for Sustainable Development and Integrated Management of the Apa River Basin - signed in Brasilia on September 11, 2006.**

The agreement aims to promote the sustainable development of the basin through the integrated management of transboundary water resources, with emphasis on aspects such as the rational, equitable and sustainable use of water for domestic, urban, agricultural and industrial purposes; the solution of problems arising from the improper use of water; the protection of fountainhead areas from surface and underground sources; and the regularization of flows and the control of floods.

The agreement entered into force on October 11, 2009, having been ratified by Decree 7,710, on May 6, 2010.

Some cooperation initiatives between Brazil and Paraguay in this basin are also developed as an isolated Project or activity, supported by the Basic Technical Cooperation Agreement between the Government of the Federative Republic of Brazil and the Government of the Republic of Paraguay, signed on October 27, 1987.

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [fill in]*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations?

The Apa River basin is a sub-basin of La Plata Basin and is located in the southern tip of the Upper Paraguay Basin. In the Brazilian territory, this basin covers the municipalities of Ponta Porã, Antônio João, Bela Vista, Caracol, Porto Murtinho, Bonito and Jardim in the State of Mato Grosso do Sul.

In Paraguayan territory it is present in the area of the Department of Amambay in the cities of Pedro Juan Caballero and Bella Vista and in the Department of Concepción



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in the municipalities of Concepción, San Carlos and San Lázaro. This entire area is covered by the Apa River Cooperation Agreement.

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [Brazil and Paraguay](#)

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

- |                               |                                     |
|-------------------------------|-------------------------------------|
| All water uses                | <input checked="" type="checkbox"/> |
| A single water use or sector  | <input type="checkbox"/>            |
| Several water uses or sectors | <input type="checkbox"/>            |

If one or several water uses or sectors, please list (check as appropriate):

**Water uses or sectors**

- |   |                          |
|---|--------------------------|
| Industry                                  | <input type="checkbox"/> |
| Agriculture                               | <input type="checkbox"/> |
| Transport (e.g., navigation)              | <input type="checkbox"/> |
| Households                                | <input type="checkbox"/> |
| Energy: hydropower and other energy types | <input type="checkbox"/> |
| Fisheries                                 | <input type="checkbox"/> |
| Tourism                                   | <input type="checkbox"/> |
| Nature protection                         | <input type="checkbox"/> |
| Other (please list): [fill in]            |                          |

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- |  |                                     |
|--|-------------------------------------|
| Dispute and conflict prevention and resolution | <input checked="" type="checkbox"/> |
| Institutional cooperation (joint bodies)       | <input checked="" type="checkbox"/> |
| Consultation on planned measures               | <input type="checkbox"/>            |
| Mutual assistance                              | <input checked="" type="checkbox"/> |

**Topics of cooperation**

- |   |                                     |
|---|-------------------------------------|
| Joint vision and management objectives    | <input checked="" type="checkbox"/> |
| Joint significant water management issues | <input checked="" type="checkbox"/> |

- 
- Navigation
  - Human health
  - Environmental protection (ecosystem)
  - Water quality
  - Water quantity or allocation
  - Cooperation in addressing floods
  - Cooperation in addressing droughts
  - Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

**Joint planning and management**

- Development of joint regulations on specific topics
- Development of international or joint river, lake or aquifer basin management or action plans
- Management of shared infrastructure
- Development of shared infrastructure
- Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

- Aligning implementation of agreement or arrangement with national laws, policies and programmes
- Aligning implementation of agreement or arrangement with regional laws, policies and programmes
- Lack of financial resources
- Insufficient human capacity
- Insufficient technical capacity
- Tense diplomatic relations
- Non-participation of certain riparian countries in the agreement
- No significant difficulties
- Other (*please describe*): [fill in]

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(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success?

Greater exchange of technical information between the water resources management bodies of both countries and expansion of the dialogue between users, representatives of civil society, academic sectors and other beneficiaries of the agreement;

Strengthening the diplomatic relationship between the two countries and contributing to the bilateral strategies and actions defined in the Joint Commissions and in the meetings of the Neighbourhood Committee between Brazil and Paraguay;

Planning of local actions focused on the reality of the area covered by the agreement

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*):

[http://www.planalto.gov.br/ccivil\\_03/\\_ato2007-2010/2010/decreto/D7170.htm](http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2010/decreto/D7170.htm)

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):*

Yes, but the joint body has not yet been established.

Article IV of the Apa River Basin Agreement foresees the creation of the Joint Brazilian-Paraguayan Commission for Sustainable Development and Integrated Management of the Apa River Basin (CRA), with representatives from the Ministries of Foreign Affairs and the bodies responsible for national water resources policy. Likewise, the Local Coordination Committee (CCL) should be created. However, these institutions have not yet been installed.

As established by the Agreement, the Apa River Basin Coordination Committee, when consolidated, will be the binational body responsible for advising the Joint Brazilian-Paraguayan Commission, which, when created, will be responsible for the execution of the Agreement.

#### **Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): **Brazil and Paraguay**

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): **No**

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(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):*

The Joint Brazilian-Paraguayan Commission for Sustainable Development and Integrated Management of the Apa River Basin (CRA), with the advice of the Local Coordination Committee, has the role of identifying initiatives and projects of bilateral interest, analysing their environmental, technical and financial viability . Then, the CRA, through the national sections, serves as an interface with the governments of both parties, taking the proposals to the respective Ministries of Foreign Affairs. This is the mechanism that will allow the implementation of projects, raising more funds with international organizations or even the signing a new specific bilateral instrument.

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):* [fill in]

Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>26</sup>

*The joint body is not operational yet.*

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

Preparedness for extreme events, e.g., common early warning and alarm procedures

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

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<sup>26</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues   
*Please describe, if any:* [fill in]
- Unexpected planning delays   
*Please describe, if any:* [fill in]
- Lack of resources   
*Please describe, if true:* [fill in]
- Lack of mechanism for implementing measures   
*Please describe, if true:* [fill in]
- Lack of effective measures   
*Please describe, if true:* [fill in]
- Unexpected extreme events   
*Please describe, if any:* [fill in]
- Lack of information and reliable forecasts   
*Please describe, if any:* [fill in]
- Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

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If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:*

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [Publicly available at governmental web portals, such as http://www.snirh.gov.br/](http://www.snirh.gov.br/)

(d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

- Emission monitoring data
- Planned measures taken to prevent, control or reduce transboundary impacts
- Point source pollution sources
- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]  
 Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

Comment: [Specifically, for the basin, no. But the area is covered by the La Plata SSTD system. http://sstd.cicplata.org/sstd/](http://sstd.cicplata.org/sstd/)

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* <http://sstd.cicplata.org/sstd/> From Brazil's side, all data are publicly available - [www.ana.gov.br](http://www.ana.gov.br); [www.inpe.br](http://www.inpe.br); [www.inmet.gov.br](http://www.inmet.gov.br)

(g) What are the main difficulties and challenges to data exchange, if applicable?

- Frequency of exchanges
- Timing of exchanges
- Comparability of data and information
- Limited spatial coverage
- Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [Data acquisition costs and differences in data quality and standards](#)

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [Allow for more precise and coordinated actions among the countries. Count on more reliable water resources management and more effective results. Strengthen political, institutional and technical articulation between institutions in the two countries](#)

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [More frequently updated information and contribution to monitoring measures in each country](#)

(d) Please describe any difficulties experienced with joint monitoring:

[Institutional and priority changes and insufficient financial, technical and human resources.](#)

[The installation of the bilateral commission and its local committee is urgently needed to catalyse actions. It should be borne in mind that management actions will always be carried out at the national level of each country, according to the relevant laws and institutions - even if integrated and in conjunction with the other signatory.](#)

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No



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*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [fill in]*

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? Each country has they own standard, usually aligned with the UN standards.*

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary: [fill in]*

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*

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[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>27</sup>

Public involvement

Other (*please specify*): [fill in]

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<sup>27</sup> Or, where applicable, aquifer management plans.

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**II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)**

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>28</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>29</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**Guarani Aquifer System**

List of the riparian States: [Brazil](#), [Argentina](#), [Paraguay](#) and [Uruguay](#).

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other
- Please describe: [fill in]
- Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: 0,8%**

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?
- One or more agreements or arrangements exist and are in force
- Agreement or arrangement developed but not in force
- Agreement or arrangement developed, but not in force for all riparians
- Please insert the name of the agreement(s) or arrangement(s) [fill in]*
- Agreement or arrangement is under development
- No agreement or arrangement

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<sup>28</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>29</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

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*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation:*

In August 2010, the Guarani Aquifer Agreement was signed between Argentina, Brazil, Paraguay and Uruguay, based on the Declaration of the United Nations Conference on the Environment (1972), at Rio - 92, on Agenda 21, at the Assembly of United Nations Convention on the Law of Transboundary Aquifers, the Summit on Sustainable Development and the Mercosur Framework Agreement on Environment. The Agreement aims at greater cooperation for scientific knowledge and responsible management of water resources.

Brazil ratified the agreement in 2017 by means of Legislative Decree No. 52, of 2017, which approved the text of the Agreement on the Guarani Aquifer, signed in San Juan, Argentina, on August 2, 2010. All countries have already ratified the Agreement, however, the Paraguayan Ministry of Foreign Affairs has to deposit its instrument of ratification to Brazil. It is noteworthy that it is only after this deposit that the Agreement may enter into force.

The Agreement can be divided into seven parts, which indicate the main legal concerns that are the subject of the negotiations: i) Rationale and aquifer rights; ii) Environmental principles for use; iii) Obligation not to cause any significant damage; iv) Obligations to provide information; v) Principles for cooperation; vi) Dispute settlement system; and vii) General provisions.

The agreement was established within the scope of the Plata Basin Treaty, and in accordance with Article VI of that treaty, a Commission comprising the four parties will be constituted, which will coordinate cooperation among themselves for the fulfilment of the principles and objectives of this Agreement. The Commission will draft its own regulation. There is, therefore, an institutional relationship between these agreements and also a territorial relationship.

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [Brazil](#), [Argentina](#), [Paraguay](#) e [Uruguay](#)

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(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

Navigation

Human health

Environmental protection (ecosystem)

Water quality

Water quantity or allocation

Cooperation in addressing floods

Cooperation in addressing droughts

---

Climate change adaptation

**Monitoring and exchange**

Joint assessments

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Elaboration of joint water quality objectives

Common early warning and alarm procedures

Exchange of experience between riparian States

Exchange of information on planned measures

**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

**Comments:**

Among the difficulties are the implementation of fragmented actions, with strictly national approaches, which represent a medium and long-term risk. Disarticulated actions compromise the ability of countries to deal with the challenges imposed by environmental changes, such as climate change, which require strategic and coordinated actions between the parties in certain situations in the regional context;

The agreement is still very vague on some issues such as it passes in relation to the harms caused to other parties. Nor is there a clear definition of what is

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considered a harm and what should be done if there is a tie in the votes to create an additional protocol to the Agreement; and

Finally, it is noted that the Agreement is ambiguous as to the possibility of managing the aquifer in an articulated manner between countries, which can generate different interpretations in cases of disagreements between the states.

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success?

Although the Agreement is not yet in force, some advances have already been observed:

1) Formation of a regional cooperation mechanism with instances of participation at different levels. The creation of these spaces for discussion and exchange led to a progressive increase in technical and institutional capacities, the strengthening of relationships of trust and the dissemination of lessons learned at all levels;

2) Strengthening the exchange of technical and institutional information;

3) Contribution to international cooperation in relation to environmental issues, especially the management of groundwater;

4) The primary reaffirmation of the sovereignty of the riparian states in relation to the underground water reserve;

5) Greater awareness of the use of groundwater;

6) Increased knowledge about the Guarani Aquifer System and its importance for the water scenario in the region; and

7) The precursor character of the Guarani Aquifer Agreement when it is based on Resolution 63/124 of the United Nations Assembly, 2008, non-binding, which deals with the International Law of Transboundary Aquifers. Five principles of the Resolution were applied in the Agreement: the principle of sovereignty of States over the stretch of aquifers located underground in their territory, the principle of equitable and rational use, the obligation not to cause sensitive damage, the exchange of data and information on a regular basis and the general obligation to cooperate.

Below are the indirect advances resulting from the great technical involvement that preceded the negotiations of the Agreement, according to Villar (2015):

- Creation by UNESCO, in Uruguay, of CeReGAS - Regional Centre for the Management of Underground Water - Category 2 Centre, with the mission of “integrating national and regional capacities at public and / or private level for the sustainable management of aquifers and the protection of water resources under an integral approach that contemplates environmental, economic and social aspects, in line with the international commitments assumed by the country and the region in terms of sustainable development”;

- Training and greater involvement in groundwater management by managers and technicians from the States involved in the Guarani Aquifer System Project (PSAG).

- Publication of the Water Law in Paraguay.

- International projects now have approaches focused on the study of groundwater.

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*):

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[https://www.internationalwaterlaw.org/documents/regionaldocs/Guarani\\_Aquifer\\_Agreement-Portuguese.pdf](https://www.internationalwaterlaw.org/documents/regionaldocs/Guarani_Aquifer_Agreement-Portuguese.pdf)

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [The Agreement is not in force yet.](#)

**Where there is a joint body or mechanism**

- (a) If there is a joint body or mechanism, which kind of joint body or mechanism *(please tick one)*?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other *(please describe)*: [fill in]

- (b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

- (c) Which States (including your own) are members of the joint body or mechanism? *(Please list)*: [fill in]

- (d) Are there any riparian States that are not members of the joint body or mechanism? *(please list)*: [fill in]

- (e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other *(please describe)*: [fill in]

- (f) Does the joint body or mechanism have any of the following features *(please tick the ones applicable)*?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe)*: [fill in]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics)*: [fill in]

Other features *(please list)*: [fill in]

- (g) What are the tasks and activities of this joint body or mechanism?<sup>30</sup>

Identification of pollution sources

---

<sup>30</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.



- 
- Data collection and exchange
  - Joint monitoring
  - Maintenance of joint pollution inventories
  - Setting emission limits
  - Elaboration of joint water quality objectives
  - Management and prevention of flood or drought risks
  - Preparedness for extreme events, e.g., common early warning and alarm procedures
  - Surveillance and early warning of water related disease
  - Water allocation and/or flow regulation
  - Policy development
  - Control of implementation
  - Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]
- (h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?
- Governance issues   
*Please describe, if any:* [fill in]
  - Unexpected planning delays   
*Please describe, if any:* [fill in]
  - Lack of resources

---

*Please describe, if true: [fill in]*

Lack of mechanism for implementing measures

*Please describe, if true: [fill in]*

Lack of effective measures

*Please describe, if true: [fill in]*

Unexpected extreme events

*Please describe, if any: [fill in]*

Lack of information and reliable forecasts

*Please describe, if any: [fill in]*

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:*

In 2003, the Project for Environmental Protection and Sustainable Development of the Guarani Aquifer System (PSAG) was launched. The final goal of the project was to create a management framework for groundwater that would support its sustainable management in Argentina, Brazil, Paraguay and Uruguay. The project, which ended in 2009, facilitated the dialogue between national institutions and with international cooperation and financing bodies and made it possible to conclude the Strategic Action Programme (SAP) and a scientific technical collection of great importance for the countries involved, as well as tools for articulated management between countries (Information System, proposed Monitoring Network, Models of Aquifer Operation). The SAP has local, regional and national approaches, as well as individual and common actions for each country.

The project was important to determine the limits of occurrence, areas of recharge and discharge of the aquifer, as well as allowed the elaboration of a digital cartographic base of the region of its occurrence. In addition, PSAG was an important source of demystification

of speculations about the Guarani Aquifer. The first was that groundwater travelled long distances, including between countries, but water flows, in fact, are quite limited due to the compartmentalization of the SAG and occur at very small speeds. The issue was also revised that the SAG's groundwater was already polluted, especially in the São Paulo region, when, in fact, basaltic coverage is a source of considerable protection against this problem, although specific points of natural contamination are found and anthropic, this is not a regional reality. Finally, another issue demystified was that there was in the Ribeirão Preto region, State of São Paulo, an overexploitation of the Guarani Aquifer, which could affect other states and regions.

A new GEF MSP was signed in 2020 and will support the implementation of SAP.

Outside the regional context supported by the 2010 Guarani Aquifer Agreement, diplomatic, technical, political and institutional issues relating to the Guarani Aquifer can be dealt with bilaterally with Argentina, Paraguay and Uruguay, in the Joint Commissions and in the Neighbourhood Commissions, which Brazil holds annually with each country, if requested by the two countries in the referred bilateral meetings

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [Through a public access platform and in multilateral or bilateral cooperation meetings.](#)

(d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

- 
- Diffuse pollution sources
  - Existing hydromorphological alterations (dams, etc.)
  - Flows or water levels (including groundwater levels)
  - Water abstractions
  - Climatological information
  - Future planned measures with transboundary impacts, such as infrastructure development
  - Other subjects (*please list*): [fill in]
  - Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address: From Brazil's side the information is publicly available:*

[www.ana.gov.br](http://www.ana.gov.br) e <http://www.snirh.gov.br/> (water resources data)

[http://rimasweb.cprm.gov.br/pmapper/\\_bacias\\_hidrograficas.php](http://rimasweb.cprm.gov.br/pmapper/_bacias_hidrograficas.php); (groundwater data)

<http://www.biosferamg.com.br/licenciamento/cadastro-tecnico-federal-ibama/> (pollution sources)

<http://www.snis.gov.br/> (pollution sources)

<http://www.embrapa.br> (pollution sources)

<http://www.inmet.gov.br/portal/index.php?r=estacoes/estacoesAutomaticas> (climatological data)

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: *Cost of data acquisition and difference in quality and protocols of collection and availability of information in each country.*

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): *Allow for more precise and coordinated actions among the countries. Count on more reliable water resources management and more effective results. Strengthen political, institutional and technical articulation between institutions in the two countries.*

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [Guarani Aquifer Strategic Action Program](#)*

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? Each country has they own standard, usually aligned with the UN standards.*

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:* [fill in]

- 
- |  |                          |
|--|--------------------------|
| Intergovernmental organizations  | <input type="checkbox"/> |
| Private sectors organizations or associations                                  | <input type="checkbox"/> |
| Water user groups or associations  | <input type="checkbox"/> |
| Academic or research institutions  | <input type="checkbox"/> |
| Other non-governmental organizations   | <input type="checkbox"/> |
| General public   | <input type="checkbox"/> |
| Other (please specify): [fill in]  |                          |
| Availability of information to the public                                      | <input type="checkbox"/> |
| Consultation on planned measures or river basin management plans <sup>31</sup> | <input type="checkbox"/> |
| Public involvement   | <input type="checkbox"/> |
| Other ( <i>please specify</i> ): [fill in]                                     |                          |

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>32</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>33</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**AMAZON AQUIFER**

List of the riparian States: [Bolivia](#), [Brazil](#), [Colombia](#), [Ecuador](#), [Peru](#) and [Venezuela](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- |   |                                     |
|---|-------------------------------------|
| Unconfined aquifer connected to a river or lake                   | <input checked="" type="checkbox"/> |
| Unconfined aquifer with no or limited relation with surface water | <input type="checkbox"/>            |
| Confined aquifer connected to surface water                       | <input type="checkbox"/>            |
| Confined aquifer with no or limited relation with surface water   | <input type="checkbox"/>            |

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<sup>31</sup> Or, where applicable, aquifer management plans.

<sup>32</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>33</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

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Other

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: 23,5%**

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s) [fill in]*

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: The aquifer has been object of interest by the ACTO. The joint body expects to carry out assessments and increase the knowledge about the aquifer, with support of Brazillian Water Agency - ANA.*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement? *(Please list):* [fill in]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]



---

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

Navigation

Human health

Environmental protection (ecosystem)

Water quality

Water quantity or allocation

Cooperation in addressing floods

Cooperation in addressing droughts

Climate change adaptation

**Monitoring and exchange**

Joint assessments

Data collection and exchange

- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

**Joint planning and management**

- Development of joint regulations on specific topics
- Development of international or joint river, lake or aquifer basin management or action plans
- Management of shared infrastructure
- Development of shared infrastructure
- Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

- Aligning implementation of agreement or arrangement with national laws, policies and programmes
- Aligning implementation of agreement or arrangement with regional laws, policies and programmes
- Lack of financial resources
- Insufficient human capacity
- Insufficient technical capacity
- Tense diplomatic relations
- Non-participation of certain riparian countries in the agreement
- No significant difficulties
- Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

- Plenipotentiaries

---

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):* [fill in]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):* [fill in]

Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>34</sup>

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

Preparedness for extreme events, e.g., common early warning and alarm procedures

Surveillance and early warning of water related disease

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<sup>34</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Water allocation and/or flow regulation
  - Policy development
  - Control of implementation
  - Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues   
*Please describe, if any:* [fill in]
- Unexpected planning delays   
*Please describe, if any:* [fill in]
- Lack of resources   
*Please describe, if true:* [fill in]
- Lack of mechanism for implementing measures   
*Please describe, if true:* [fill in]
- Lack of effective measures   
*Please describe, if true:* [fill in]
- Unexpected extreme events   
*Please describe, if any:* [fill in]
- Lack of information and reliable forecasts   
*Please describe, if any:* [fill in]

---

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

(d) If yes, on what subjects are information and data exchanged?

- 
- Environmental conditions
  - Research activities and application of best available techniques
  - Emission monitoring data
  - Planned measures taken to prevent, control or reduce transboundary impacts
  - Point source pollution sources
  - Diffuse pollution sources
  - Existing hydromorphological alterations (dams, etc.)
  - Flows or water levels (including groundwater levels)
  - Water abstractions
  - Climatological information
  - Future planned measures with transboundary impacts, such as infrastructure development
  - Other subjects (*please list*): [fill in]
  - Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

---

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [fill in]

---

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:* [fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public



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Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>35</sup>

Public involvement

Other (*please specify*): [fill in]

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>36</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>37</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:** **SERRA GERAL AQUIFER**

List of the riparian States: [Argentina](#), [Brazil](#), [Paraguay](#) and [Uruguay](#).

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

Unconfined aquifer connected to a river or lake

Unconfined aquifer with no or limited relation with surface water

Confined aquifer connected to surface water

Confined aquifer with no or limited relation with surface water

Other

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** **4,94%**

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<sup>35</sup> Or, where applicable, aquifer management plans.

<sup>36</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>37</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

- 
1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s) [fill in]*

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [Lack of priority](#).*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

- (b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

- (c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

- 
- Industry
  - Agriculture
  - Transport (e.g., navigation)
  - Households
  - Energy: hydropower and other energy types
  - Fisheries
  - Tourism
  - Nature protection
  - Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- Dispute and conflict prevention and resolution
- Institutional cooperation (joint bodies)
- Consultation on planned measures
- Mutual assistance

**Topics of cooperation**

- Joint vision and management objectives
- Joint significant water management issues
- Navigation
- Human health
- Environmental protection (ecosystem)
- Water quality
- Water quantity or allocation
- Cooperation in addressing floods
- Cooperation in addressing droughts
- Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

---

**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

---

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? *(Please list):* [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? (please list): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other *(please describe):* [fill in]

(f) Does the joint body or mechanism have any of the following features *(please tick the ones applicable)*?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):* [fill in]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):* [fill in]

Other features *(please list):* [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>38</sup>

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

Preparedness for extreme events, e.g., common early warning and alarm procedures

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

Exchange of experience between riparian States

Exchange of information on existing and planned uses of water and related installations

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<sup>38</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building

Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* [fill in]

Lack of resources

*Please describe, if true:* [fill in]

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

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Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

(d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [fill in]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

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*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

- Notification and communication
- Coordinated or joint alarm system for floods
- Coordinated or joint alarm system for droughts
- Joint climate change adaptation strategy
- Joint disaster risk reduction strategy
- Other (*please list*): [fill in]
- No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary: [fill in]*

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

- Stakeholders have observer status in a joint body or mechanism
- Stakeholders have an advisory role in the joint body
- Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism: [fill in]*

- Intergovernmental organizations
- Private sectors organizations or associations
- Water user groups or associations
- Academic or research institutions
- Other non-governmental organizations
- General public
- Other (please specify): [fill in]
- Availability of information to the public
- Consultation on planned measures or river basin management plans<sup>39</sup>
- Public involvement

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<sup>39</sup> Or, where applicable, aquifer management plans.

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Other (*please specify*): [fill in]

**II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)**

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>40</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>41</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**BAURU-CAIUÁ AQUIFER**

List of the riparian States: [Brazil and Paraguay](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

Unconfined aquifer connected to a river or lake

Unconfined aquifer with no or limited relation with surface water

Confined aquifer connected to surface water

Confined aquifer with no or limited relation with surface water

Other

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** [4,15%](#)

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s)* [fill in]

---

<sup>40</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>41</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

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Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [Lack of priority](#).*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

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Tourism

Nature protection

Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

Navigation

Human health

Environmental protection (ecosystem)

Water quality

Water quantity or allocation

Cooperation in addressing floods

Cooperation in addressing droughts

Climate change adaptation

**Monitoring and exchange**

Joint assessments

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Elaboration of joint water quality objectives

Common early warning and alarm procedures

Exchange of experience between riparian States

Exchange of information on planned measures

**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

---

Other (*please list*): [fill in]

- (e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

- (f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

- (g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

- (a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

- (b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

- (c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [fill in]

- (d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

- (e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

- 
- No cooperation
- They have observer status
- Other (*please describe*): [fill in]
- (f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?
- A secretariat
- If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):* [fill in]
- A subsidiary body or bodies
- Please list (e.g., working groups on specific topics):* [fill in]
- Other features (*please list*): [fill in]
- (g) What are the tasks and activities of this joint body or mechanism?<sup>42</sup>
- Identification of pollution sources
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Setting emission limits
- Elaboration of joint water quality objectives
- Management and prevention of flood or drought risks
- Preparedness for extreme events, e.g., common early warning and alarm procedures
- Surveillance and early warning of water related disease
- Water allocation and/or flow regulation
- Policy development
- Control of implementation
- Exchange of experience between riparian States
- Exchange of information on existing and planned uses of water and related installations
- Settling of differences and conflicts
- Consultations on planned measures
- Exchange of information on best available technology
- Participation in transboundary EIA
- Development of river, lake or aquifer basin management or action plans

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<sup>42</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of,  
for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues   
*Please describe, if any:* [fill in]
- Unexpected planning delays   
*Please describe, if any:* [fill in]
- Lack of resources   
*Please describe, if true:* [fill in]
- Lack of mechanism for implementing measures   
*Please describe, if true:* [fill in]
- Lack of effective measures   
*Please describe, if true:* [fill in]
- Unexpected extreme events   
*Please describe, if any:* [fill in]
- Lack of information and reliable forecasts   
*Please describe, if any:* [fill in]
- Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

- More than once per year
- Once per year
- Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No



---

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

- (d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

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National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [fill in]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

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Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (*please specify*): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>43</sup>

Public involvement

Other (*please specify*): [fill in]

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or

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<sup>43</sup> Or, where applicable, aquifer management plans.

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arrangement where conditions are similar.<sup>44</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>45</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin,–sub-basin, part of a basin or group of basins:**  
**PANTANAL AQUIFER**

List of the riparian States: [Bolivia, Brazil and Paraguay](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- |   |                                     |
|---|-------------------------------------|
| Unconfined aquifer connected to a river or lake                   | <input checked="" type="checkbox"/> |
| Unconfined aquifer with no or limited relation with surface water | <input type="checkbox"/>            |
| Confined aquifer connected to surface water                       | <input type="checkbox"/>            |
| Confined aquifer with no or limited relation with surface water   | <input type="checkbox"/>            |
| Other   | <input type="checkbox"/>            |
| Please describe: [fill in]  |                                     |
| Unknown   | <input type="checkbox"/>            |

**Percentage of your country’s territory within the basin, sub-basin, part of a basin or group of basins:** [1,91%](#)

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

- |   |                                     |
|---|-------------------------------------|
| One or more agreements or arrangements exist and are in force                 | <input type="checkbox"/>            |
| Agreement or arrangement developed but not in force                           | <input type="checkbox"/>            |
| Agreement or arrangement developed, but not in force for all riparians        | <input type="checkbox"/>            |
| <i>Please insert the name of the agreement(s) or arrangement(s)</i> [fill in] |                                     |
| Agreement or arrangement is under development                                 | <input type="checkbox"/>            |
| No agreement or arrangement   | <input checked="" type="checkbox"/> |

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation:* [Lack of priority.](#)

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to**

---

<sup>44</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>45</sup> In section II, “agreement” covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

---

**question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

- All water uses
- A single water use or sector
- Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

- Industry
- Agriculture
- Transport (e.g., navigation)
- Households
- Energy: hydropower and other energy types
- Fisheries
- Tourism
- Nature protection

Other (please list): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

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Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

Navigation

Human health

Environmental protection (ecosystem)

Water quality

Water quantity or allocation

Cooperation in addressing floods

Cooperation in addressing droughts

Climate change adaptation

**Monitoring and exchange**

Joint assessments

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Elaboration of joint water quality objectives

Common early warning and alarm procedures

Exchange of experience between riparian States

Exchange of information on planned measures

**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

- 
- Lack of financial resources
  - Insufficient human capacity
  - Insufficient technical capacity
  - Tense diplomatic relations
  - Non-participation of certain riparian countries in the agreement
  - No significant difficulties
  - Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

- Plenipotentiaries
- Bilateral commission
- Basin or similar commission
- Expert group meeting or meeting of national focal points
- Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

- No cooperation
- They have observer status
- Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

- A secretariat



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*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe): [fill in]*

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics): [fill in]*

Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>46</sup>

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

Preparedness for extreme events, e.g., common early warning and alarm procedures

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

Exchange of experience between riparian States

Exchange of information on existing and planned uses of water and related installations

Settling of differences and conflicts

Consultations on planned measures

Exchange of information on best available technology

Participation in transboundary EIA

Development of river, lake or aquifer basin management or action plans

Management of shared infrastructure

Addressing hydromorphological alterations

Climate change adaptation

Joint communication strategy

Basin-wide or joint public participation and consultation of, for example, basin management plans

---

<sup>46</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

---

Joint resources to support transboundary cooperation

Capacity-building

Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* [fill in]

Lack of resources

*Please describe, if true:* [fill in]

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

- 
5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

- (d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

- (e) Is there a shared database or information platform?

Yes /No

---

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

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	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

---

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe*: [fill in]

Joint and agreed methodologies

*Please describe*: [fill in]

Joint sampling

*Please describe*: [fill in]

- 
- Common monitoring network
- Please describe:* [fill in]
- Common agreed parameters
- Please describe:* [fill in]
- (c) Please describe the main achievements regarding joint monitoring, if any: [fill in]
- (d) Please describe any difficulties experienced with joint monitoring: [fill in]
8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?
- Yes /No
- If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]
9. Have the riparian States agreed to use joint water quality standards?
- Yes /No
- If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [fill in]
10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?
- Notification and communication
- Coordinated or joint early warning or alarm system for accidental water pollution
- Other (*please list*): [fill in]
- No measures
- If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]
11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?
- Notification and communication
- Coordinated or joint alarm system for floods
- Coordinated or joint alarm system for droughts
- Joint climate change adaptation strategy
- Joint disaster risk reduction strategy
- Other (*please list*): [fill in]
- No measures
- If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]
12. Are procedures in place for mutual assistance in case of a critical situation?
- Yes /No

---

*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>47</sup>

Public involvement

Other (please specify): [fill in]

## **II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)**

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>48</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>49</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or

---

<sup>47</sup> Or, where applicable, aquifer management plans.

<sup>48</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>49</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

---

even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**AQUIDAUANA AQUIFER**

List of the riparian States: [Brazil and Paraguay](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

Unconfined aquifer connected to a river or lake

Unconfined aquifer with no or limited relation with surface water

Confined aquifer connected to surface water

Confined aquifer with no or limited relation with surface water

Other

Please describe: [Whole aquifer semiconfined](#)

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** [0,86%](#)

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s) [fill in]*

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation:* [Lack of priority.](#)

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

---

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

If one or several water uses or sectors, please list (check as appropriate):

**Water uses or sectors**

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

Other (please list): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

Navigation



- 
- Human health
  - Environmental protection (ecosystem)
  - Water quality
  - Water quantity or allocation
  - Cooperation in addressing floods
  - Cooperation in addressing droughts
  - Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

**Joint planning and management**

- Development of joint regulations on specific topics
- Development of international or joint river, lake or aquifer basin management or action plans
- Management of shared infrastructure
- Development of shared infrastructure
- Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

- Aligning implementation of agreement or arrangement with national laws, policies and programmes
- Aligning implementation of agreement or arrangement with regional laws, policies and programmes
- Lack of financial resources
- Insufficient human capacity
- Insufficient technical capacity
- Tense diplomatic relations
- Non-participation of certain riparian countries in the agreement
- No significant difficulties
- Other (*please describe*): [fill in]

---

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):* [fill in]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):* [fill in]

Other features (*please list*): [fill in]

- 
- (g) What are the tasks and activities of this joint body or mechanism?<sup>50</sup>
- Identification of pollution sources
  - Data collection and exchange
  - Joint monitoring
  - Maintenance of joint pollution inventories
  - Setting emission limits
  - Elaboration of joint water quality objectives
  - Management and prevention of flood or drought risks
  - Preparedness for extreme events, e.g., common early warning and alarm procedures
  - Surveillance and early warning of water related disease
  - Water allocation and/or flow regulation
  - Policy development
  - Control of implementation
  - Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]
- (h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

---

<sup>50</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

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Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* [fill in]

Lack of resources

*Please describe, if true:* [fill in]

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

---

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

(d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

- 
- Frequency of exchanges
  - Timing of exchanges
  - Comparability of data and information
  - Limited spatial coverage
  - Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe*: [fill in]

Joint and agreed methodologies

*Please describe*: [fill in]

Joint sampling

*Please describe*: [fill in]

Common monitoring network

*Please describe*: [fill in]

Common agreed parameters

*Please describe*: [fill in]

- 
- (c) Please describe the main achievements regarding joint monitoring, if any: [fill in]
- (d) Please describe any difficulties experienced with joint monitoring: [fill in]
8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?
- Yes /No
- If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [fill in]*
9. Have the riparian States agreed to use joint water quality standards?
- Yes /No
- If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? [fill in]*
10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?
- |   |                                     |
|---|-------------------------------------|
| Notification and communication  | <input type="checkbox"/>            |
| Coordinated or joint early warning or alarm system for accidental water pollution | <input type="checkbox"/>            |
| Other (please list): [fill in]  |                                     |
| No measures   | <input checked="" type="checkbox"/> |
- If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*
11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?
- |  |                                     |
|--|-------------------------------------|
| Notification and communication                 | <input type="checkbox"/>            |
| Coordinated or joint alarm system for floods   | <input type="checkbox"/>            |
| Coordinated or joint alarm system for droughts | <input type="checkbox"/>            |
| Joint climate change adaptation strategy       | <input type="checkbox"/>            |
| Joint disaster risk reduction strategy         | <input type="checkbox"/>            |
| Other (please list): [fill in]                 |                                     |
| No measures                                    | <input checked="" type="checkbox"/> |
- If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*
12. Are procedures in place for mutual assistance in case of a critical situation?
- Yes /No
- If yes, please provide a brief summary: [fill in]*
13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?
- Yes /No

---

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>51</sup>

Public involvement

Other (please specify): [fill in]

## **II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)**

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>52</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>53</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

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<sup>51</sup> Or, where applicable, aquifer management plans.

<sup>52</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>53</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.



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**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**PERMO-CARBONÍFERO SYSTEM**

List of the riparian States: [Brazil and Uruguay](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other
- Please describe: [fill in]
- Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** [0,44%](#)

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s)* [fill in]

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation:* [Lack of priority.](#)

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

---

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin,  
does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

Other (please list): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or  
arrangement?

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

Navigation

Human health

Environmental protection (ecosystem)

Water quality

Water quantity or allocation

- 
- Cooperation in addressing floods
  - Cooperation in addressing droughts
  - Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

**Joint planning and management**

- Development of joint regulations on specific topics
- Development of international or joint river, lake or aquifer basin management or action plans
- Management of shared infrastructure
- Development of shared infrastructure
- Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

- Aligning implementation of agreement or arrangement with national laws, policies and programmes
- Aligning implementation of agreement or arrangement with regional laws, policies and programmes
- Lack of financial resources
- Insufficient human capacity
- Insufficient technical capacity
- Tense diplomatic relations
- Non-participation of certain riparian countries in the agreement
- No significant difficulties
- Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

---

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism *(please tick one)*?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other *(please describe)*: [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? *(Please list)*: [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? *(please list)*: [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other *(please describe)*: [fill in]

(f) Does the joint body or mechanism have any of the following features *(please tick the ones applicable)*?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe)*: [fill in]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics)*: [fill in]

Other features *(please list)*: [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>54</sup>

Identification of pollution sources

Data collection and exchange

---

<sup>54</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Joint monitoring
  - Maintenance of joint pollution inventories
  - Setting emission limits
  - Elaboration of joint water quality objectives
  - Management and prevention of flood or drought risks
  - Preparedness for extreme events, e.g., common early warning and alarm procedures
  - Surveillance and early warning of water related disease
  - Water allocation and/or flow regulation
  - Policy development
  - Control of implementation
  - Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building

Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* [fill in]

Lack of resources

*Please describe, if true:* [fill in]

---

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

---

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

(d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

---

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe*: [fill in]

Joint and agreed methodologies

*Please describe*: [fill in]

Joint sampling

*Please describe*: [fill in]

Common monitoring network

*Please describe*: [fill in]

Common agreed parameters

*Please describe*: [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?



---

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [fill in]*

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? [fill in]*

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary: [fill in]*

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

---

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

- |  |                          |
|--|--------------------------|
| Intergovernmental organizations  | <input type="checkbox"/> |
| Private sectors organizations or associations                                  | <input type="checkbox"/> |
| Water user groups or associations  | <input type="checkbox"/> |
| Academic or research institutions  | <input type="checkbox"/> |
| Other non-governmental organizations   | <input type="checkbox"/> |
| General public   | <input type="checkbox"/> |
| Other (please specify): [fill in]  |                          |
| Availability of information to the public                                      | <input type="checkbox"/> |
| Consultation on planned measures or river basin management plans <sup>55</sup> | <input type="checkbox"/> |
| Public involvement   | <input type="checkbox"/> |
| Other (please specify): [fill in]  |                          |

## **II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)**

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>56</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>57</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**LITORÂNEO SUL AQUIFER (CHUI)**

List of the riparian States: [Brazil and Uruguay](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

Unconfined aquifer connected to a river or lake

---

<sup>55</sup> Or, where applicable, aquifer management plans.

<sup>56</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>57</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

- 
- Unconfined aquifer with no or limited relation with surface water
  - Confined aquifer connected to surface water
  - Confined aquifer with no or limited relation with surface water
  - Other
  - Please describe: [fill in]
  - Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: 0,31%**

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?
  - One or more agreements or arrangements exist and are in force
  - Agreement or arrangement developed but not in force
  - Agreement or arrangement developed, but not in force for all riparians
  - Please insert the name of the agreement(s) or arrangement(s) [fill in]*
  - Agreement or arrangement is under development
  - No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [Lack of priority](#).*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?
  - Yes /No
  - If yes, does it cover the entire basin or group of basins and all riparian States?
    - Yes /No
    - Additional explanations? [fill in]
  - Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?
    - Yes /No
    - Additional explanations? [fill in]
  - Which States (including your own) are bound by the agreement or arrangement? *(Please list):* [fill in]
- (b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?
  - Yes /No

---

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

- All water uses
- A single water use or sector
- Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

- Industry
- Agriculture
- Transport (e.g., navigation)
- Households
- Energy: hydropower and other energy types
- Fisheries
- Tourism
- Nature protection
- Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- Dispute and conflict prevention and resolution
- Institutional cooperation (joint bodies)
- Consultation on planned measures
- Mutual assistance

**Topics of cooperation**

- Joint vision and management objectives
- Joint significant water management issues
- Navigation
- Human health
- Environmental protection (ecosystem)
- Water quality
- Water quantity or allocation
- Cooperation in addressing floods
- Cooperation in addressing droughts
- Climate change adaptation

**Monitoring and exchange**

- Joint assessments

- 
- Data collection and exchange
  - Joint monitoring
  - Maintenance of joint pollution inventories
  - Elaboration of joint water quality objectives
  - Common early warning and alarm procedures
  - Exchange of experience between riparian States
  - Exchange of information on planned measures

**Joint planning and management**

- Development of joint regulations on specific topics
- Development of international or joint river, lake or aquifer basin management or action plans
- Management of shared infrastructure
- Development of shared infrastructure
- Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

- Aligning implementation of agreement or arrangement with national laws, policies and programmes
- Aligning implementation of agreement or arrangement with regional laws, policies and programmes
- Lack of financial resources
- Insufficient human capacity
- Insufficient technical capacity
- Tense diplomatic relations
- Non-participation of certain riparian countries in the agreement
- No significant difficulties
- Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

- 
- Plenipotentiaries
  - Bilateral commission
  - Basin or similar commission
  - Expert group meeting or meeting of national focal points
  - Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

- No cooperation
- They have observer status
- Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):* [fill in]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):* [fill in]

Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>58</sup>

- Identification of pollution sources
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Setting emission limits
- Elaboration of joint water quality objectives
- Management and prevention of flood or drought risks
- Preparedness for extreme events, e.g., common early warning and alarm procedures

---

<sup>58</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Surveillance and early warning of water related disease
  - Water allocation and/or flow regulation
  - Policy development
  - Control of implementation
  - Exchange of experience between riparian States
  - Exchange of information on existing and planned uses of water and related installations
  - Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues   
*Please describe, if any:* [fill in]
- Unexpected planning delays   
*Please describe, if any:* [fill in]
- Lack of resources   
*Please describe, if true:* [fill in]
- Lack of mechanism for implementing measures   
*Please describe, if true:* [fill in]
- Lack of effective measures   
*Please describe, if true:* [fill in]
- Unexpected extreme events   
*Please describe, if any:* [fill in]
- Lack of information and reliable forecasts

---

Please describe, if any: [fill in]

Others (please list and describe, as appropriate): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism? [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

If yes, please provide further details: [fill in]

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (please describe): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]



- 
- (d) If yes, on what subjects are information and data exchanged?
- Environmental conditions
  - Research activities and application of best available techniques
  - Emission monitoring data
  - Planned measures taken to prevent, control or reduce transboundary impacts
  - Point source pollution sources
  - Diffuse pollution sources
  - Existing hydromorphological alterations (dams, etc.)
  - Flows or water levels (including groundwater levels)
  - Water abstractions
  - Climatological information
  - Future planned measures with transboundary impacts, such as infrastructure development
  - Other subjects (*please list*): [fill in]
  - Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [fill in]

---

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:* [fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

---

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>59</sup>

Public involvement

Other (please specify): [fill in]

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>60</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>61</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**LITORÂNEO NORTE AQUIFER (COSTEIRO)**

List of the riparian States: [Brazil and French Guyana](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

Unconfined aquifer connected to a river or lake

Unconfined aquifer with no or limited relation with surface water

Confined aquifer connected to surface water

Confined aquifer with no or limited relation with surface water

Other

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** [0,06%](#)

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<sup>59</sup> Or, where applicable, aquifer management plans.

<sup>60</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>61</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

- 
1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s) [fill in]*

Agreement or arrangement is under development

No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [Lack of priority](#).*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

- (b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

- (c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

- 
- Industry
  - Agriculture
  - Transport (e.g., navigation)
  - Households
  - Energy: hydropower and other energy types
  - Fisheries
  - Tourism
  - Nature protection
  - Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

- Dispute and conflict prevention and resolution
- Institutional cooperation (joint bodies)
- Consultation on planned measures
- Mutual assistance

**Topics of cooperation**

- Joint vision and management objectives
- Joint significant water management issues
- Navigation
- Human health
- Environmental protection (ecosystem)
- Water quality
- Water quantity or allocation
- Cooperation in addressing floods
- Cooperation in addressing droughts
- Climate change adaptation

**Monitoring and exchange**

- Joint assessments
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Elaboration of joint water quality objectives
- Common early warning and alarm procedures
- Exchange of experience between riparian States
- Exchange of information on planned measures

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**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

---

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? *(Please list):* [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? *(please list):* [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other *(please describe):* [fill in]

(f) Does the joint body or mechanism have any of the following features *(please tick the ones applicable)*?

A secretariat

*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):* [fill in]

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics):* [fill in]

Other features *(please list):* [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>62</sup>

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

Preparedness for extreme events, e.g., common early warning and alarm procedures

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

Exchange of experience between riparian States

Exchange of information on existing and planned uses of water and related installations

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<sup>62</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.



- 
- Settling of differences and conflicts
  - Consultations on planned measures
  - Exchange of information on best available technology
  - Participation in transboundary EIA
  - Development of river, lake or aquifer basin management or action plans
  - Management of shared infrastructure
  - Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of, for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building

Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* [fill in]

Lack of resources

*Please describe, if true:* [fill in]

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

---

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

(d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [fill in]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

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*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

- Notification and communication
- Coordinated or joint alarm system for floods
- Coordinated or joint alarm system for droughts
- Joint climate change adaptation strategy
- Joint disaster risk reduction strategy
- Other (*please list*): [fill in]
- No measures

*If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]*

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary: [fill in]*

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

- Stakeholders have observer status in a joint body or mechanism
- Stakeholders have an advisory role in the joint body
- Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism: [fill in]*

- Intergovernmental organizations
- Private sectors organizations or associations
- Water user groups or associations
- Academic or research institutions
- Other non-governmental organizations
- General public
- Other (please specify): [fill in]
- Availability of information to the public
- Consultation on planned measures or river basin management plans<sup>63</sup>
- Public involvement

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<sup>63</sup> Or, where applicable, aquifer management plans.

---

Other (*please specify*): [fill in]

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.<sup>64</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>65</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
**RORAIMA GROUP**

List of the riparian States: [Brazil](#), [Guyana](#) and [Venezuela](#)

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other

Please describe: [mostly semiconfined, but some part unconfined](#)

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** [0,06%](#)

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

*Please insert the name of the agreement(s) or arrangement(s)* [fill in]

Agreement or arrangement is under development

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<sup>64</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>65</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

---

No agreement or arrangement



*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [Lack of priority](#).*

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

---

Nature protection

Other (*please list*): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

Navigation

Human health

Environmental protection (ecosystem)

Water quality

Water quantity or allocation

Cooperation in addressing floods

Cooperation in addressing droughts

Climate change adaptation

**Monitoring and exchange**

Joint assessments

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Elaboration of joint water quality objectives

Common early warning and alarm procedures

Exchange of experience between riparian States

Exchange of information on planned measures

**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]



---

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

- 
- They have observer status
- Other (*please describe*): [fill in]
- (f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?
- A secretariat
- If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe):* [fill in]
- A subsidiary body or bodies
- Please list (e.g., working groups on specific topics):* [fill in]
- Other features (*please list*): [fill in]
- (g) What are the tasks and activities of this joint body or mechanism?<sup>66</sup>
- Identification of pollution sources
- Data collection and exchange
- Joint monitoring
- Maintenance of joint pollution inventories
- Setting emission limits
- Elaboration of joint water quality objectives
- Management and prevention of flood or drought risks
- Preparedness for extreme events, e.g., common early warning and alarm procedures
- Surveillance and early warning of water related disease
- Water allocation and/or flow regulation
- Policy development
- Control of implementation
- Exchange of experience between riparian States
- Exchange of information on existing and planned uses of water and related installations
- Settling of differences and conflicts
- Consultations on planned measures
- Exchange of information on best available technology
- Participation in transboundary EIA
- Development of river, lake or aquifer basin management or action plans
- Management of shared infrastructure

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<sup>66</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- 
- Addressing hydromorphological alterations
  - Climate change adaptation
  - Joint communication strategy
  - Basin-wide or joint public participation and consultation of,  
for example, basin management plans
  - Joint resources to support transboundary cooperation
  - Capacity-building
  - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* [fill in]

Lack of resources

*Please describe, if true:* [fill in]

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

---

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

- (d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

*If yes, please provide the web address:* [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

---

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]

(d) Please describe any difficulties experienced with joint monitoring: [fill in]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

*If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [fill in]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (please list): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

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Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

*If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (*please specify*): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>67</sup>

Public involvement

Other (*please specify*): [fill in]

## II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or

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<sup>67</sup> Or, where applicable, aquifer management plans.

arrangement where conditions are similar.<sup>68</sup> In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements<sup>69</sup> or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

**Name of the transboundary basin,-sub-basin, part of a basin or group of basins:** **BOA VISTA-AREIAS BRANCAS AQUIFER**

List of the riparian States: **Brazil and Guyana**

**In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:**

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water
- Confined aquifer with no or limited relation with surface water
- Other
- Please describe: [fill in]
- Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins:** **0,17%**

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

- One or more agreements or arrangements exist and are in force
- Agreement or arrangement developed but not in force
- Agreement or arrangement developed, but not in force for all riparians
- Please insert the name of the agreement(s) or arrangement(s)* [fill in]
- Agreement or arrangement is under development
- No agreement or arrangement

*If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation:* **Lack of priority.**

**If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to**

<sup>68</sup> In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

<sup>69</sup> In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.



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**question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.**

**Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.**

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?  
(Please list): [fill in]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

- All water uses
- A single water use or sector
- Several water uses or sectors

*If one or several water uses or sectors, please list (check as appropriate):*

**Water uses or sectors**

- Industry
- Agriculture
- Transport (e.g., navigation)
- Households
- Energy: hydropower and other energy types
- Fisheries
- Tourism
- Nature protection

Other (please list): [fill in]

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

**Procedural and institutional issues**

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Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

**Topics of cooperation**

Joint vision and management objectives

Joint significant water management issues

Navigation

Human health

Environmental protection (ecosystem)

Water quality

Water quantity or allocation

Cooperation in addressing floods

Cooperation in addressing droughts

Climate change adaptation

**Monitoring and exchange**

Joint assessments

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Elaboration of joint water quality objectives

Common early warning and alarm procedures

Exchange of experience between riparian States

Exchange of information on planned measures

**Joint planning and management**

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

- 
- Lack of financial resources
  - Insufficient human capacity
  - Insufficient technical capacity
  - Tense diplomatic relations
  - Non-participation of certain riparian countries in the agreement
  - No significant difficulties
  - Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [fill in]

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

*If no, why not? (please explain):* [fill in]

**Where there is a joint body or mechanism**

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

- Plenipotentiaries
- Bilateral commission
- Basin or similar commission
- Expert group meeting or meeting of national focal points
- Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [fill in]

(d) Are there any riparian States that are not members of the joint body or mechanism? (*please list*): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

- No cooperation
- They have observer status
- Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

- A secretariat

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*If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe): [fill in]*

A subsidiary body or bodies

*Please list (e.g., working groups on specific topics): [fill in]*

Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?<sup>70</sup>

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

Preparedness for extreme events, e.g., common early warning and alarm procedures

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

Exchange of experience between riparian States

Exchange of information on existing and planned uses of water and related installations

Settling of differences and conflicts

Consultations on planned measures

Exchange of information on best available technology

Participation in transboundary EIA

Development of river, lake or aquifer basin management or action plans

Management of shared infrastructure

Addressing hydromorphological alterations

Climate change adaptation

Joint communication strategy

Basin-wide or joint public participation and consultation of, for example, basin management plans

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<sup>70</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

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Joint resources to support transboundary cooperation

Capacity-building

Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

Governance issues

*Please describe, if any:* [fill in]

Unexpected planning delays

*Please describe, if any:* [fill in]

Lack of resources

*Please describe, if true:* [fill in]

Lack of mechanism for implementing measures

*Please describe, if true:* [fill in]

Lack of effective measures

*Please describe, if true:* [fill in]

Unexpected extreme events

*Please describe, if any:* [fill in]

Lack of information and reliable forecasts

*Please describe, if any:* [fill in]

Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?  
[fill in]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

*If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism?* [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, please provide further details:* [fill in]

- 
5. How is the transboundary basin,–sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Regulation of urbanization, deforestation, and sand and gravel extraction.

Environmental flow norms, including consideration of levels and seasonality

Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals

Water-related species and habitats protection

Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [fill in]

- (d) If yes, on what subjects are information and data exchanged?

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*please list*): [fill in]

Other comments, e.g. spatial coverage of data and information exchange: [fill in]

- (e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

*Please describe*: [fill in]

Joint and agreed methodologies

*Please describe*: [fill in]

Joint sampling

*Please describe*: [fill in]

- 
- Common monitoring network
- Please describe:* [fill in]
- Common agreed parameters
- Please describe:* [fill in]
- (c) Please describe the main achievements regarding joint monitoring, if any: [fill in]
- (d) Please describe any difficulties experienced with joint monitoring: [fill in]
8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?
- Yes /No
- If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied:* [fill in]
9. Have the riparian States agreed to use joint water quality standards?
- Yes /No
- If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied?* [fill in]
10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?
- Notification and communication
- Coordinated or joint early warning or alarm system for accidental water pollution
- Other (*please list*): [fill in]
- No measures
- If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]
11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?
- Notification and communication
- Coordinated or joint alarm system for floods
- Coordinated or joint alarm system for droughts
- Joint climate change adaptation strategy
- Joint disaster risk reduction strategy
- Other (*please list*): [fill in]
- No measures
- If not, why not? What difficulties does your country face in putting in place such measures?:* [fill in]
12. Are procedures in place for mutual assistance in case of a critical situation?
- Yes /No



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*If yes, please provide a brief summary:* [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

*If yes, how? (please tick all applicable)*

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

*If yes, please specify the stakeholders for the joint body or mechanism:*  
[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans<sup>71</sup>

Public involvement

Other (please specify): [fill in]

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<sup>71</sup> Or, where applicable, aquifer management plans.

**Please remember to complete section II for each of the transboundary basins, sub-basin, part of a basin or group of basins. Please also remember to attach copies of agreements or arrangements, if any.**

### III. Water management at the national level

In this section, you are requested to provide general information on water management at the national level as it relates to transboundary waters. Information on specific transboundary basins, sub-basins, part of basins and groups of basins, should be presented in section II and not repeated here.

1. (a) Does your country's national legislation, policies, action plans and strategies refer to measures to prevent, control and reduce any transboundary impact?

Yes /No

*If yes, please briefly describe the main national laws, policies, action plans and strategies*

The **National Water Resources Policy** - Law 9,433, of January 8, 1997, also called "Water Law", instituted the National Water Resources Policy and created the National Water Resources Management System (SINGREH). It has six fundamentals: (1) water is a public good; (2) it is a limited natural resource with economic value; (3) multiple uses of water must be guaranteed; (4) in case of scarcity, the priority uses are public supply and animal feed; (5) the hydrographic basin is the water resource management unit and, (6) water resource management must take place in a decentralized manner.

The objectives of the Policy are: 1) to ensure current and future generations with the necessary availability of water, in quality standards appropriate to their respective uses; 2) the rational and integrated use of water resources, including water transport, with a view to sustainable development; 3) prevention and defence against critical hydrological events of natural origin or resulting from the inappropriate use of natural resources.

In order to achieve these objectives, the National Water Resources Policy established the following instruments: water resource plans, framing water bodies in classes of predominant uses, granting the right to use water resources, charging for the use of water and the information system on water resources.

The **National Water Resources Plan** is one of the main instruments provided for in the legislation for the implementation of the National Water Resources Policy (Law 9.433). The current Plan, which dates from 2006 and was prepared for the 2006 - 2020 horizon, defines as strategic objectives the improvement of water availability, in quantity and quality, the reduction of conflicts over the use of water and the perception of water conservation as a socio-environmental value relevant. It consists basically of the following steps: diagnosis, scenarios and programs and goals. A new National Plan is in the process of being prepared by the Ministry of Regional Development (MDR) and ANA, effective from 2021 and with a horizon until 2040.

The monitoring of the implementation of the National Plan is done through the Report on Water Resources in Brazil, produced annually by the National Water Agency, and as established by the National Water Resources Council.

- (b) Does your country's legislation provide for the following principles?

Precautionary principle Yes /No

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Polluter pays principle Yes /No

Sustainable development Yes /No

User pays principle Yes /No

If yes, please briefly describe how these principles are implemented at the national level: All of these principles are contemplated in the Brazilian legislation framework - Federal Constitution, Federal Laws and Decrees of the Environmental Sector and specific legislation on the Water Resources. Precautionary Principle: Principle 15 - Precautionary Principle - of the Rio / 92 Declaration on Environment and Sustainable Development was proposed at the Rio de Janeiro Conference in June 1992.

(c) Does your country have a national licensing or permitting system for wastewater discharges and other point source pollution? (e.g., in industry, mining, energy, municipal, wastewater management or other sectors)?

Yes /No

*If yes, for which sectors?*

Industry

Mining

Energy

Municipal

Livestock raising

Aquaculture

Other (please list): [Agriculture](#)

*Please briefly describe the licensing or permitting system, indicating whether the system provides for setting emission limits based on best available technology?*

All water users, with a few exception, must request to the mandatory agency the grant in order to be able to use a certain flow or volume of water, either for abstraction or for discharge. The grant guarantees the user the right to use water, subject to water availability. It is up to the granting authority (of the Federal Government, of the States or of the Federal District), depending on the water jurisdiction (federal or state) of the water body, to examine each grant application and to verify the sufficient existence of water, considering the quantitative and qualitative aspects, so that the application can be attended to.

In basins with compromised quality or quantity of water, more detailed analyses of grant applications may occur where minimum efficiencies will be required. In situations of conflict between the user sectors or in water scarcity, specific regulatory frameworks or water allocation terms can be established for certain water systems.

*If yes, for which sectors? (please list):* All sectors that discharge sewage and other liquid or gaseous waste into bodies of water, treated or not, with the aim of diluting, transporting or final disposal.

*If not, please explain why not (giving the most important reasons) or provide information if there are plans to introduce a licensing or permitting system: [fill in]*

(d) Are the authorized discharges monitored and controlled?

Yes /No

*If yes, how? (Please tick the ones applicable):*

- 
- Monitoring of discharges
  - Monitoring of physical and chemical impacts on water
  - Monitoring of ecological impacts on water
  - Conditions on permits
  - Inspectorate

Other means (*please list*):

The control of larger users is also carried out through the monitoring of discharges, through analyses carried out by the users themselves. The data referring to the effluent parameters are forwarded by users to ANA through the annual declaration of use of water resources, via the Internet. There are specific regulations for each hydrographic basin where this procedure is in place.

*If your country does not have a discharge monitoring system, please explain why not or provide information if there are plans to introduce a discharge monitoring system:*  
[fill in]

(e) What are the main measures which your country takes to reduce diffuse sources of water pollution on transboundary waters (e.g., from agriculture, transport, forestry or aquaculture)? The measures listed below relate to agriculture, but other sectors may be more significant. Please be sure to include these under "others":

**Legislative measures**

- Norm for uses of fertilizers
- Norms for uses of manure
- Permitting system
- Bans on or norms for use of pesticides
- Others (*please list*): [fill in]

**Economic and financial measures**

- Monetary incentives
- Environmental taxes (such as fertilizer taxes)
- Others (*please list*): [fill in]

**Agricultural extension services**

**Technical measures**

*Source control measures*

- Crop rotation
- Tillage control
- Winter cover crops
- Others (*please list*): [fill in]

*Other measures*

- Buffer/filter strips
- Wetland reconstruction
- Sedimentation traps

---

Chemical measures

Others (*please list*): [fill in]

**Other types of measures**

*If yes, please list:* [fill in]

(f) What are the main measures which your country takes to enhance water resources allocation and use efficiency?

*Please tick as appropriate (not all might be relevant)*

A regulatory system regarding water abstraction

Monitoring and control of abstractions

Water rights are defined

Water allocation priorities are listed

Water-saving technologies

Advanced irrigation techniques

Demand management activities

Other means (*please list*)

(g) Does your country apply the ecosystems approach?

Yes /No

*If yes, please describe how:* Despite not adopting an ecosystem approach, currently the Federal Government is formulating a River Basin Restoration National Program which will be grounded on an ecosystem approach. Still, the country has already some pilot projects of integrated water resources management that consider this kind of approach.

(h) Does your country take specific measures to prevent the pollution of groundwaters?

Yes /No

*If yes, please briefly describe the most important measures:* [Well protection perimeter;](#)  
[Protection of recharge areas; and soil contamination control.](#)

2. Do your national laws require transboundary environmental impact assessment (EIA)?

Yes /No

*If yes, please briefly describe the legislative basis, and any related implementing procedures.*

[Accordingly, to national regulations, some activities are subject to an EIA, but specific analyses of transboundary impacts are carried out on a case-by-case basis, depending on the project.](#)

*If not, do other measures provide for transboundary EIA? [fill in]*

#### IV. Final questions

1. What are the main challenges your country faces in cooperating on transboundary waters?

Differences between national administrative and legal frameworks

- 
- |   |                                     |
|---|-------------------------------------|
| Lack of relevant data and information         | <input checked="" type="checkbox"/> |
| Difficulties in data and information exchange | <input type="checkbox"/>            |
| Sectoral fragmentation at the national level  | <input checked="" type="checkbox"/> |
| Language barrier                              | <input type="checkbox"/>            |
| Resource constraints                          | <input checked="" type="checkbox"/> |
| Environmental pressures, e.g. extreme events  | <input checked="" type="checkbox"/> |
| Sovereignty concerns                          | <input type="checkbox"/>            |

Please list other challenges and/or provide further details:

- 1) Consider local demands so that the planned actions and measures meet the local needs of the transboundary region, ensuring water management and the agreement, and considering the different legal instruments of the states;
- 2) Achieve the engagement of the actors involved in institutionalizing and implementing the agreement;
- 3) Achieve an intense cooperation and harmonization between the federal, state and inter-state levels, which share the competences on water resources, in the application of principles and instruments for transboundary water management;
- 4) Ensuring the existence, enforcement, coordination and implementation of laws that address water-related issues.
- 5) Articulate and coordinate inspection actions with neighbouring countries. The limitation of the jurisdictions and powers of each body end up allowing limits of action, which constitutes a risk for the adequate use of water;
- 6) Seek technical and consultative support in the border areas, due to the lack of river basin committees in these areas;
- 7) Try to minimize the impact of institutional changes in the bodies related to the water policy; and
- 8) Overcome the lack of human, financial and technical resources.

2. What have been the main achievements in-cooperating on transboundary waters?

- |   |                                     |
|---|-------------------------------------|
| Improved water management                                   | <input checked="" type="checkbox"/> |
| Enhanced regional integration, i.e. beyond water            | <input checked="" type="checkbox"/> |
| Adoption of cooperative arrangements                        | <input checked="" type="checkbox"/> |
| Adoption of joint plans and programmes                      | <input checked="" type="checkbox"/> |
| Long-lasting and sustained cooperation                      | <input checked="" type="checkbox"/> |
| Financial support for joint activities                      | <input checked="" type="checkbox"/> |
| Stronger political will for transboundary water cooperation | <input checked="" type="checkbox"/> |
| Better knowledge and understanding                          | <input checked="" type="checkbox"/> |
| Dispute avoidance   | <input checked="" type="checkbox"/> |
| Stakeholder engagement                                      | <input type="checkbox"/>            |

Please list other achievements, keys to achieving success, and/or provide concrete examples:

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1) The work developed under the agreements that Brazil is part has been opportune in establishing non-conflictual and cooperative relations. Brazil has a proactive and cooperative attitude in its international relations on the water theme, playing an important role in the dissemination of knowledge and techniques for the management of water resources and a strategic role.

2) Cooperation on transboundary waters, although their current actions are fluid, still requires improvement in the exchange and systematization of information between riparian countries;

3) The model that has shown good results is that established in the cooperation agreements signed for the Mirim Lagoon, Quaraí River and Apa River basins, in which local participation is ensured.

4) Brazil has a consolidated internal operational structure to manage, control and monitor the use and quality of transboundary water resources in its jurisdiction. In addition, the country has created mechanisms to foster decentralized and democratic management,

5) In terms of cooperation on transboundary waters, Brazil has technical cooperation projects with all border countries, in actions that include exchange of experiences, training, direct dialogue between institutions or promotion of joint research;

6) Regarding the monitoring theme, the National Water Agency monitors practically all the most important border and transboundary rivers in the major national hydrographic basins. In this task, it relies on information collected in foreign territory, obtained from the managing bodies of neighbouring countries, many of which are the result of interinstitutional negotiations for a determined joint action and others that are the result of agreements and projects negotiated for the exchange of data and knowledge and training actions.

7) Concession of water permits since 2010, by ANA, in border and transboundary rivers, mainly in the Plata and Amazon basins.

3. Please indicate which institutions were consulted during the completion of the questionnaire

- |   |                                     |
|---|-------------------------------------|
| Joint body or mechanism   | <input checked="" type="checkbox"/> |
| Other riparian or aquifer countries   | <input type="checkbox"/>            |
| National water management authority   | <input checked="" type="checkbox"/> |
| Environment agency/ authority   | <input type="checkbox"/>            |
| Basin authority (national)  | <input type="checkbox"/>            |
| Local or provincial government  | <input type="checkbox"/>            |
| Geological survey (national)  | <input type="checkbox"/>            |
| Non-water specific ministries, e.g. foreign affairs, finance, forestry and energy | <input type="checkbox"/>            |
| Civil society organizations   | <input type="checkbox"/>            |
| Water user associations   | <input type="checkbox"/>            |
| Private sector  | <input type="checkbox"/>            |
| Other (please list): [fill in]  |                                     |

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Please briefly describe the process by which the questionnaire was completed:  
The questionnaire was completed by the Ministry of Regional Development  
with technical assistance of the Water National Agency.

4. If you have any other comments please add them here (*insert comments*): [fill in]
5. Name and contact details of the person(s) who filled out the questionnaire (*please insert*):

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Date: June 24<sup>th</sup>

Signature:



Thank you very much for taking the time to complete this report.

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