

Reporting on global SDG indicator 6.5.2

TEMPLATE of the second cycle for reporting

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: [Guyana]

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.^a
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 (km²));

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

(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 operationality;

(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)

<i>Name of transboundary river or lake basin/sub-basin</i>	<i>It is a basin or a sub-basin?^b</i>	<i>Countries shared with</i>	<i>Surface area of the basin/sub-basin (in km²) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an arrangement (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 basin/sub-basin (in km²) covered by an operational arrangement within the territory of the country</i>
Amacuro	basin	Venezuela	706.6	no	no	no	no	no	no	0
Amazon	basin	Bolivia, Brazil, Colombia, Ecuador, French Guiana, Peru, Suriname, Venezuela	13,000	no	entirely	yes	yes	yes	yes	13,000
Barima	basin	Venezuela	40	no	no	no	no	no	no	0
Corantijn/Courantyne	basin	Brazil, Suriname	26,000	no	no	no	no	no	no	0
Essequibo	basin	Brazil, Venezuela	115,000	no	no	no	no	no	no	0
Orinoco	basin	Brazil, Colombia, Venezuela,	Less than 1000	no	no	no	no	no	no	0
(A) Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country										13,000

^b List sub-basins after the basin they belong to.

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? ^b	Countries shared with	Surface area of the basin/sub-basin (in km ²) 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 ²) covered by an operational arrangement within the territory of the country	
(in km²) (do not double count sub-basins)											
(B) Total surface area of transboundary basins of rivers and lakes within the territory of the country (in km²) (do not double count sub-basins)			155,746								

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^c (in km²) 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^d (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 km²) covered by an operational arrangement within the territory of the country</i>
4S - Grupo Roraima	Brazil, Venezuela	14,871	no	no	no	no	no	no	no	0
5S - Boa Vista – Serra do Tucano – North Savanna	Brazil	6,784	no	no	no	no	no	no	no	0
6S - Zanderij	French Guiana, Suriname	22,429	no	no	no	no	no	no	no	0
7S - Coesewijne	Suriname	9,430	no	no	no	no	no	no	no	0
8S – A Sand / B Sand	Suriname	9,430	no	no	no	no	no	no	no	0
(C) Sub-total: surface area of transboundary aquifers covered by operational arrangements (in km²)										0
(D) Total surface area of transboundary aquifers (in km²)		62,944								

^c 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.

^d In the text of the agreement or arrangement or in the practice.

Indicator value for the country

Surface waters:

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

$$A/B \times 100 = 13,000 / 155,746 \times 100 = \mathbf{8.3\%}$$

Aquifers:

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

$$C/D \times 100 = 0 / 62,944 = \mathbf{0\%}$$

Sustainable Development Goal indicator 6.5.2:

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

$$((A + C)/(B + D)) \times 100 =$$

$$((13,000 + 0) / (155,746 + 62,944)) \times 100 =$$

$$(13,000 / 218,690) \times 100 = \mathbf{5.94\%}$$

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.

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:

No local data was readily available for Guyana hence the TWAP global datasets were used for calculation/estimation of values.

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

If yes, list the bilateral and multilateral agreements or arrangements (listing for each of the countries concerned): [Amazon Cooperation Treaty]

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.¹ 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 agreements² 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 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 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

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

¹ 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.

² 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) [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 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: [all]

- (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? [

The Meeting of Ministers of Foreign Affairs held in 1995, resulted in the Declaration of Lima, and highlighted specific cooperation activities for water resource management.

Amending the protocol signed in December 1998 (which came into force in 2002), effectively expanded the institutional structure of the Treaty, with the creation of the Amazon Cooperation Treaty Organization (ACTO), which now has a Permanent Secretariat, altering Article XXII of the Treaty. ACTO has been mandated to make agreements with the non-Member States and other international organizations to defend the natural resources of the Basin and define strategies for managing and protecting this river basin's waters, through consensus and tailored solutions to shared environmental problems]

(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*): [Amazon Cooperation Treaty] and amended treaty: <http://www.otca-official.info/assets/documents/20160629/bc822314f4b8ced7cf30f7e44555e66.pdf>

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

x 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?

x 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, 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?

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): [Under the Treaty, a *Pro-Tempore* Secretariat had been in place since the Treaty was concluded but was replaced in 2003 by the Permanent Secretariat of the ACTO and a Secretary General. This was accomplished through the Amendment Protocol of the Amazon Treaty for the creation of the Amazon Cooperation Treaty Organisation (ACTO). It is a joint Secretariat and the Member States must elect the ACTO Secretary General by unanimous vote.]

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [There are five *ad hoc* Special Commissions or Working Groups that can be activated in the following areas under the Secretariat: Special Amazon Commissions that can be: Health; Indigenous Affairs; Environment; Transport, Infrastructure, Communications and Tourism; and Science, Technology and Education.]

Other features (please list): [Each country has a Permanent National Commission (PNC) that is responsible for: applying the provisions of the Amazon Cooperation Treaty in its territory; carrying out the decisions and agreements adopted by the Meetings of Ministers of Foreign Affairs and the

Amazon Cooperation Council (CCA); coordinating policies involving sustainable development in the Amazon region; and suggesting relevant policy measures.]

(g) What are the tasks and activities of this joint body or mechanism?³

- | | |
|---|-------------------------------------|
| 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 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 type="checkbox"/> |
| Policy development | <input checked="" type="checkbox"/> |
| Control of implementation | <input checked="" 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 checked="" type="checkbox"/> |
| Settling of differences and conflicts | <input type="checkbox"/> |
| Consultations on planned measures | <input checked="" type="checkbox"/> |
| Exchange of information on best available technology | <input checked="" 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 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"/> |

³ 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.

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?

x 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? [The creation of the Amazon Cooperation Treaty Organization (ACTO).

Regional Action in the Area of Water Resources' (Amazon Project), an initiative coordinated by the National Water Agency of Brazil (ANA) since 2012, which organizes regional technical meetings and training programs in the management of water resources in the Amazon Basin.

The BioAmazonia Project which is a Regional Project for the Management, Monitoring and Control of Species of Wild Fauna and Flora Threatened by Trade.

The GEF Amazonas Project (Integrated and sustainable management of transboundary water resources of the Amazon river basin considering variability and climate change)]

(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?

x Yes /No

If yes, please provide further details: [Through partnership with the Global Environment Facility (“GEF”), the General Secretariat of the Organization of American States and the United Nations Development Programme, ACTO launched the Integrated and Sustainable Management of Transboundary Water Resources in the Amazon River Basin Considering Climate Change Variability and Change Project (the “GEF Amazonas Project”). The GEF Amazonas Project aims to create a shared vision among the ACTO Member States concerning water resources and land use, which will be used to develop a Transboundary Diagnostic Analysis and a Strategic Action Framework Program (SAP) for work in the Amazon Basin. Pilot projects under the SAP would be concentrated on the responses of the human communities and the ecosystem to climate variability, droughts, floods, and fires within the Amazon Basin. The project is also focused on institutional harmonization and strengthening, capacity building in regards to integrated water management, and forecasting the hydrological impacts from climate change and the anticipated responses to these changes.]

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?

x 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): [Information may be exchanged on a “as required” basis, when a project or assessment may be in the process of development and Member States are required to provide necessary information for the project development.]

Information may also be exchanged through the Ministries of Foreign Affairs of Member States at meetings or when requested.]

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

- | | |
|--|-------------------------------------|
| Environmental conditions | <input checked="" type="checkbox"/> |
| Research activities and application of best available techniques | <input checked="" type="checkbox"/> |
| Emission monitoring data | <input type="checkbox"/> |
| Planned measures taken to prevent, control or reduce transboundary impacts | <input type="checkbox"/> |
| Point source pollution sources | <input checked="" type="checkbox"/> |
| Diffuse pollution sources | <input checked="" type="checkbox"/> |
| Existing hydromorphological alterations (dams, etc.) | <input type="checkbox"/> |
| Flows or water levels (including groundwater levels) | <input type="checkbox"/> |
| Water abstractions | <input type="checkbox"/> |
| Climatological information | <input checked="" type="checkbox"/> |
| Future planned measures with transboundary impacts, such as infrastructure development | <input type="checkbox"/> |
| Other subjects (<i>please list</i>): [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 | <input type="checkbox"/> |
| Timing of exchanges | <input type="checkbox"/> |
| Comparability of data and information | <input type="checkbox"/> |
| Limited spatial coverage | <input type="checkbox"/> |
| Inadequate resources (technical and/or financial) | <input checked="" type="checkbox"/> |

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*): [The main benefits of data exchange on the Amazon Basin are that it highlights the progress Member States are making in sustainably managing the resources within their individual boundaries and to provide possible best practices and technologies other States can consider as tools to improve their mechanisms of management of their resources at a national level and as a transboundary basin level.]

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?

x 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: [A joint Assessment was carried

in 2018 and produced the Regional Transboundary Diagnostic Analysis of the Amazon Basin which was aimed to identify and analyze the main transboundary problems, their impacts and causes, to define regional response strategies and develop the Strategic Action Program (SAP). Methodologically, the TDA is a scientific-technical document that is based on two main pillars: The available information and experiences in various aspects of IWRM in the Amazon Basin; and the participation of key national actors (institutions, public and private organizations) related to IWRM in the Amazon region, identifying their perception of the major transboundary problems and their underlying causes.

The Regional TDA process consisted of national TDA workshops, with the participation of representatives of institutions from ACTO member countries and the official validation of the results by the National Focal Points in each country. In addition, the TDA received contributions from scientific and demonstration activities implemented in the context of the GEF Amazon Project.]

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?

x 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 plans⁴

Public involvement

Other (please specify): [fill in]

⁴ 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?

x Yes /No

If yes, please briefly describe the main national laws, policies, action plans and strategies [While the laws and acts do not speak directly towards transboundary water management, they are designed to maintain certain standards and quality of water as it related to local use while considerings international standards and the Amazon Cooperartion Treaty. There are several agencies withing Guyana that control water and environmental standards, these include the Evironmental Protection Agency **EPA**, Geology and Mines Commission **GGMC** and the Guyana Water Incorporate **GWI**]

- (b) Does your country's legislation provide for the following principles?

Precautionary principle Yes /No

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: [fill in]

- (c) Does your country have a national licensing or permitting system for wastewater dischargeyess and other point source pollution? (e.g., in industry, mining, energy, municipal, wastewater management or other sectors)?

x Yes /No

If yes, for which sectors?

Industry

Mining

Energy

Municipal

Livestock raising

Aquaculture

Other (please list): [fill in]

Please briefly describe the licensing or permitting system, indicating whether the system provides for setting emission limits based on best available technology?

A project summary is submitted to the local Environmental Protection Agency along with an EIA is for any large scale projects or an EMP is for smaller scale projects. The EPA then decides on the grant of the permit and the conditions of said permit. Emission limits are set based on international recommend values for the various sectors or industries based on values proposed by organizations such as WHO, PAHO and US EPA.

If yes, for which sectors? (please list): [fill in]

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?

x 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*): [Self monitoring and reporting by permit holder]

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: [fill in]

(h) Does your country take specific measures to prevent the pollution of groundwaters?

x Yes /No

If yes, please briefly describe the most important measures: [The use various chemicals, pesticides and fertilizers and limited or banned to mitigate groundwater pollutions]

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. [fill in]

If not, do other measures provide for transboundary EIA? [EIA is required for any large scale projects locally while and EMP is required for smaller scale projects. The local Environmental Protection Agency then decides how to proceed.]

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

Difficulties in data and information exchange

Sectoral fragmentation at the national level

Language barrier

Resource constraints

Environmental pressures, e.g. extreme events

Sovereignty concerns

Please list other challenges and/or provide further details: [fill in]

2. What have been the main achievements in-cooperating on transboundary waters?

Improved water management

Enhanced regional integration, i.e. beyond water

Adoption of cooperative arrangements

Adoption of joint plans and programmes

Long-lasting and sustained cooperation

Financial support for joint activities

Stronger political will for transboundary water cooperation

Better knowledge and understanding

Dispute avoidance

Stakeholder engagement

Please list other achievements, keys to achieving success, and/or provide concrete examples: [fill in]

3. Please indicate which institutions were consulted during the completion of the questionnaire

Joint body or mechanism

Other riparian or aquifer countries

National water management authority

Environment agency/ authority

Basin authority (national)

Local or provincial government

Geological survey (national)

Non-water specific ministries, e.g. foreign affairs, finance, forestry and energy

Civil society organizations

Water user associations

Private sector

Other (please list): [fill in]

Please briefly describe the process by which the questionnaire was completed: [fill in]

4. If you have any other comments please add them here (*insert comments*): [This report was completed with the aid of personel from various local agencies. They all were either recently appointed or did not have sufficient knowledge to provide clarity on the topic. While I was able to confirm that ACTO (our operational agreement) meets frequently to discuss several topics more specifically related to ongoing projects in Guyana and neighboring countries (mainly Brazil whom we have a good working relationship) , the type of data or a clear understanding of this data extra frequency could not be confirmed.]

5. Name and contact details of the person(s) who filled out the questionnaire (*please insert*): [Colis Allen, colisnico.allen@gmail.com]

Date: [29/06/2020]



Signature: [fill in]

[29/06/2020 (initial submission); 02/02/2021 (final revised submission)]

Thank you very much for taking the time to complete this report.
