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: [ANGOLA]

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));
- (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;

^a 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

<u>Transboundary river</u> 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? ^b	Countries shared with	Surface area of the basin/ sub-basin (in km²) 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 I 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 km²) covered by an operational arrangement within the territory of the country
Congo	Cuango and Cassai;	Democratic Republic of Congo; Congo (Brazaville); Zambia; Cameron; Rwanda; Gabon, Chad and Central African Republic	132,978; 154,641	Yes	Entirely	Yes	Yes	Yes	Yes	287619
Cubango	Cubango	Botswana e Namibia	150,461	Yes	Entirely	Yes	Yes	Yes	Yes	150,461
Cunene	Cunene	Namibia	94,822	Yes	Entirely	Yes	Yes	Yes	Yes	94,822
Cuvelai	Cuvelai	Namibia	52,566	Yes	Entirely	Yes	Yes	Yes	Yes	52,566
Zambeze	Alto Zamzeze; Lungué Bungo e Cuando	Botswana; Namibia;								259,154

^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 km²) 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 km²) covered by an operational arrangement within the territory of the country
		Malawi; Moçambique; Tanzanea; Zambia e Zimbabwe	85,039; 66,151 and 107,964	Yes	Entirely	Yes	Yes	Yes	Yes	
(A) Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country (in km²) (do not double count sub-basins)										844,622
(B) Total surface area of trailakes within the territory (do not double count sub	844,622									

6

Table 2
Transboundary aquifers (please add rows as needed)

Name of the transboundary aquifer	Countries shared with	Surface area of the aquifer ^c (in km²) 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 ^d (entirely, partly, no) (Ref. to questions in sect. II)	Criterion I 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 km²) covered by an opera-tional arrange-ment within the territory of the country
Congo dolomitic	Congo (Brazaville);	8,118	No	No	No	No	No	No	No	0
Congo intracratonic	Democratic Republic of Congo;	216,714	No	No	No	No	No	No	No	0
Congo Cotier	Democratic Republic of Congo; Congo (Brazaville) and Gabon	13,107	No	No	No	No	No	No	No	0
Cuvelai-Etosha	Republic of Namibia	30,766	No	no	entirely	Yes	Yes	Yes	Yes	30,766
Nata-Karoo	Botswana; Namibia; Zambia; Zimbabwe.	12,055	No	no	entirely	Yes	Yes	Yes	Yes	12,055

^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.

	Countries shared with	Surface area of the aquifer ^c (in km²) within the territory of the country	Map ana/ or GIS shapefile provided	Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Covered within an arrangement not specific to the aquifer (entirely, partly, 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 km²) covered by an opera-tional arrange-ment within the territory of the country
	Republic of Namibia	211	No	No	No	No	No	No	No	0
(C) Sub-total: surface area of trans aquifers covered by operationa arrangements (in km²)									42821	
(D) Total surface area of transboundary aquifers (in km²)		280,971								

Indicator value for the country

Surface waters:

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

$$A/B \times 100 = 100\%$$

Aquifers:

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

$$C/D \times 100 = 15\%$$

Sustainable Development Goal indicator 6.5.2:

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

$$((A + C)/(B + D)) \times 100 = 78,84$$

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:

management of transboundary waters (i.e., rivers, lakes or groundwater), whether bilateral multilateral?	or
Yes 🔀/No 🗌	
If yes, list the bilateral and multilateral agreements or arrangements (listing for each of the countries concerned): [OKACOM (Cubango/Okavango) Agreement; ZAMCOM (Zambezi) Agreement; CICOS (Congo) Agreement; PTTC (Cunene) Agreement CUVECOM (Cuvelai) Agreement]	M
Questions for each transboundary basin, sub-basin, part of a basin, or group of basin (river, lake or aquifer)	18
Please complete this second section for each transboundary basin (river or lake basin, aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement arrangement where conditions are similar. In some instances, you may provide information both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements or arrangements on both the basin and its sub-basin. You may coordinately your responses with other States with which your country shares transboundary waters, 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.	or on ou ite or
Please reproduce this whole section with its questions for each transboundary basin, subsain, part of a basin or group of basins for which you will provide a reply.	b-
Name of the transboundary basin, sub-basin, part of a basin or group of basins: [Cong Cuango and Cassai]	0;
List of the riparian States: [Democratic Republic of Congo; Congo (Brazaville); Zambia; Camero Rwanda; Gabon, Chad and Central African Republic]	m;
In the case of an aquifer, what is the nature of the aquifer and its relation with the rive or lake basin:	er
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 of group of basins: [7.85%]	or

Does your country have transboundary agreements or arrangements for the protection and/or

II.

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.		re one or more transboundary (bilateral or multilateral) agreeme ement(s) on this basin, sub-basin, part of a basin or group of basins?	nt(s) or						
	One on	r more agreements or arrangements exist and are in force							
	Agreer	ment or arrangement developed but not in force							
	Agreer	ment or arrangement developed, but not in force for all riparians							
	•	insert the name of the agreement(s) or arrangement(s) [CICOS	(Congo)						
	Agreer	ment or arrangement is under development							
	No agr	reement or arrangement							
		e is no agreement or arrangement or it is not in force, please explain ot and provide information on any plans to address the situation: [fill i							
transl questi	oundation 4; if	o agreement or arrangement and no joint body or mechanism ry basin, sub-basin, part of a basin or group of basins then j f there is no agreement or arrangement, but a joint body or mediestion 3.	ump to						
	gement	and 3 to be completed for each bilateral or multilateral agrees in force in the transboundary basin, sub-basin, part of a basin of							
2.	(a)	Does this agreement or arrangement specify the area subject to cooper	ration?						
	Yes	/No							
	If yes,	does it cover the entire basin or group of basins and all riparian States	?						
	Yes	/No							
	Additi	onal explanations? [fill in]							
	Or, if to basin?	he agreement or arrangement relates to a sub-basin, does it cover the en	tire sub-						
	Yes /No								
	Additi	onal explanations? [fill in]							
	(Pleas	States (including your own) are bound by the agreement or arran <i>e list</i>): [Republic of Angola, Democratic Republic of Congo; Congo (Bra; Cameron; Rwanda; Gabon, Chad and Central African Republic]	_						
	(b) does it	If the agreement or arrangement relates to a river or lake basin or sur also cover aquifers?	ıb-basin,						
	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):							

Wat	er 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) arrar	What topics or subjects of cooperation are included in the agreement?	greement or
	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) agreer	What are the main difficulties and challenges that your country faces ment or arrangement and its implementation, if any?	with the
		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]	
	CICO	What are the main achievements in implementing the agreer gement and what were the keys to achieving such success? [Angola ad S Agreement in January 2016. Before that, Angola was an Observer to a speed by the Congo River Basin Commission.	hered to
	develo region	vements implementing the agreement: a common vision to the opment; ownership of programme and projects; creation of a smooth parallel integration; Keys to achieving success: political will; good neightfor regional cooperation]	ath for a
		Please attach a copy of the agreement or arrangement or provide as of the document (please attach document or insert web additable): [CICOS: www.cicos.int]	
3.	•	ar country a member of any joint body or mechanism for this agree gement?	ment or
Yes 🔀	/No [
If no,	why no	t? (please explain): [fill in]	
Wher	e there	is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or me etick one)?	chanism
		Plenipotentiaries	

3.

		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
		Other (please describe): [fill in]	
	(b) basin,	Does the joint body or mechanism cover the entire transboundary bas, part of a basin or group of basins?	in, sub-
Yes 🔀	/No [
	Africa	Which States (6 States of Central Africa) are members of the joint anism? (<i>Please list</i>): [Republic of Angola, Republic of Cameroon, an Republic, Democratic Republic of the Congo, Republic of Conblic of Gabon]	Central
		Are there any riparian States that are not members of the joint banism? (please list): [Republic of Zambia; Republic of Malawi; Republic of Rwanda; United Republic of Tanzania]	-
	(e) the jo	If not all riparian States are members of the joint body or mechanism ho int body or mechanism cooperate with them?	ow does
		No cooperation	
		They have observer status	
Emba	ssies]	Other (please describe): [Diplomatic relations through plenipo	tentiary
	(f) tick th	Does the joint body or mechanism have any of the following features the ones applicable)?	(please
		A secretariat	
		If the secretariat is a permanent one, is it a joint secretar does each country host its own secretariat? (Please describe): [Per Secretariat based in Kinshasa – Democratic Republic of Congo]	
		A subsidiary body or bodies	
(Fluvi	al trans	Please list (e.g., working groups on specific topics): [Group on Nassport); Platform for National Consultation (PCN)]	vigation
		Other features (please list): [fill in]	
	(g)	What are the tasks and activities of this joint body or mechanism? ³	
		Identification of pollution sources	
		Data collection and exchange	
		Joint monitoring	
		Maintenance of joint pollution inventories	
		Setting emission limits	
		Elaboration of joint water quality objectives	

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 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 factoperation of the joint body or mechanism, if any?	es with the
Governance issues	
Please describe, if any: [Lack of an Authority and the lack of a I in the Angolan portion of the River Basin]	Master Plan
Unexpected planning delays	
Please describe, if any: [fill in]	
Lack of resources	
Please describe, if true: [human capacity; technical; financial reco	arces]
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	
systen	n]	Please describe, if any: [inefficient functioning of hydrometeo	rological
		Others (please list and describe, as appropriate): [fill in]	
	(i)	Does the joint body or mechanism, or its subsidiary bodies meet regu	larly?
	Yes 🛭		
	If yes,	how frequently does it meet?	
		More than once per year	
		Once per year	
		Less than once per year	
	_	What are the main achievements with regards to the joint body or med cooperation environment; common view for the Basin developme bourly relations]	
	(k) coope	Did the joint body or mechanism ever invite a non-riparian coastal rate?	State to
Yes []/No [>		
		, please give details. If no, why not, e.g. are the relevant coastal Sta an States and therefore already members of the joint body or mechani	
4.	-	joint objectives, a common strategy, a joint or coordinated management plan been agreed for the basin, sub-basin, part of a basin or group of basin.	-
Yes 🔀	/ No [
If yes,	please	provide further details: [fill in]	
5.	protec	is the transboundary basin,-sub-basin, part of a basins or group of eted, including the protection of ecosystems, in the context of sustain al water use?	
	_	ation of urbanization, deforestation, and sand and l extraction.	
	Enviro	onmental flow norms, including consideration of levels and nality	
		quality protection, e.g. nitrates, pesticides, faecal coliforms, metals	
	Water	related species and habitats protection	
	Other	measures (please describe): [fill in]	
6.	(a) States	Does your country regularly exchange information and data with other in the basin, sub-basin, part of a basin or group of basins?	riparian
Yes 🔀	✓/No [
	(b)	If yes, how often:	

	More than once per year	
	Once per year	
	Less than once per year	
(c) mee	Please describe how information is exchanged (e.g. in conntings of joint bodies): [Through reports and documents posted in the	
(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 excin]	change: [fill
(e)	Is there a shared database or information platform?	
Yes/No	\boxtimes	
(f)	Is the database publicly available?	
Yes M/No		
If yes, pleas	se provide the web address: [CICOS: www.cicos.int]	
(g)	What are the main difficulties and challenges to data exchange, if	applicable?
Freq	uency of exchanges	
Tim	ing of exchanges	
Com	parability of data and information	
Lim	ited spatial coverage	
Inad	equate resources (technical and/or financial)	
Othe	er (please describe): [fill in]	
Add	itional comments: [fill in]	
(h) basii	What are the main benefits of data exchange on the basin, sub-basin or group of basins? (<i>please describe</i>): [fill in]	sin, part of a

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 monitor	oring cover?		
			Hydrological	Ecological	Chemical
Boro	der surf	ace waters		\boxtimes	
Surf	ace wat	ters in the entire basin			
	ace wat	ters on the main			
Surf	ace wat	ters in part of the basin			
	pleas	se describe [fill in]			
	nsbound nconnec	lary aquifer(s) (connected cted)			
ripai	rian hyd	n the territory of one lraulically connected to a ary river or lake			
	(b)	If joint monitoring is carried out,	how is this done?	,	
		National monitoring stations con or common stations	nected through a r	network	
		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) in]	Please describe the main achieve	ments regarding jo	oint monitori	ng, if any: [fil
	(d)	Please describe any difficulties e	xperienced with jo	oint monitorii	ng: [fill in]
8.		he riparian States carry out joint and, part of a basin or group of basins		transbounda	ry basin, sub
Yes	/No				
	(e.g.,	s, please provide the date of the last surface waters or groundwaters of assessment methodology applied: [1	ıly, pollution sour		
9.	Have	e the riparian States agreed to use jo	int water quality s	standards?	

Yes []/No 🖂	
	If yes, what standards have been applied, e.g. international or regional standards of the riparian State applied? [fill in]	
10.	What are the measures implemented to prevent or limit the transboundary in accidental pollution?	npact of
	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 in place such measures?: [There is no agreement for prevention or lin the transboundary impact of accidental pollution]	
11.	What are the measures implemented to prevent or limit the transboundary in extreme weather events and climate change?	npact of
	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 in place such measures?: [fill in]	putting
12.	Are procedures in place for mutual assistance in case of a critical situation?	
Yes 🔀	√No	
200	please provide a brief summary: [In case of a natural disaster, a notification is a Angolan government, through its Ministry of Affairs, to the Basin Member S	_
13.	Are the public or relevant stakeholders involved in transboundary water manain the basin, sub-basin, part of a basin or group of basins?	agement
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	\boxtimes

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 ⁴		
Public involvement		
Other (please specify): [PCN facilitates the dissemination of informa	tion to the public]	

⁴ Or, where applicable, aquifer management plans.

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. 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 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: [Cubango/Okavango]

In the case of an aquifer, what is the nature of the aquifer and its relation with the river

List of the riparian States: [Republic of Botswana and Republic of Namibia]

or lak	e basin:			
Uncon	nfined aquifer connected to a river or lake			
Uncon	nfined aquifer with no or limited relation with surface water			
Confi	ned aquifer connected to surface water			
Confi	ned aquifer with no or limited relation with surface water			
Other				
Please	describe: [fill in]			
Unkno	own			
	ntage of your country's territory within the basin, sub-basin, part of basins: $[20.21\%]$	t of a b	oasin o	r
1.	Is there one or more transboundary (bilateral or multilateral) agarrangement(s) on this basin, sub-basin, part of a basin or group of basin	_	nt(s) o	r
	One or more agreements or arrangements exist and are in force			
	Agreement or arrangement developed but not in force		\boxtimes	
	Agreement or arrangement developed, but not in force for all riparians	S		
	Please insert the name of the agreement(s) or arrangement(s) [Tookavango River Basin Water Commission (OKACOM), Agreement (State of the Agreement (Sta		manen	ıt
	Agreement or arrangement is under development			

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.

		re is no agreement or arrangement or it is not in force, please explain tot and provide information on any plans to address the situation: [fill i	
trans quest	bound: ion 4;	no agreement or arrangement and no joint body or mechanism ary basin, sub-basin, part of a basin or group of basins then j if there is no agreement or arrangement, but a joint body or meduestion 3.	jump to
	gemen	2 and 3 to be completed for each bilateral or multilateral agreement in force in the transboundary basin, sub-basin, part of a basin of	
2.	(a)	Does this agreement or arrangement specify the area subject to coope	ration?
	Yes	/No [
	If yes	, does it cover the entire basin or group of basins and all riparian States	?
	Yes	✓/No □	
	Addit	tional explanations? [fill in]	
	Or, if basin	the agreement or arrangement relates to a sub-basin, does it cover the en?	itire sub-
	Yes [/No	
	Addit	tional explanations? [fill in]	
		h States (including your own) are bound by the agreement or arran se list): [Republic of Angola, Republic of Botswana and Republic of Namibia]	-
	(b) does	If the agreement or arrangement relates to a river or lake basin or suit also cover aquifers?	ıb-basin,
	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	e or several water uses or sectors, please list (check as appropriate):	
	Wate	er uses or sectors	
		Industry	
		Agriculture	
		Transport (e.g., navigation)	
		Households	
		Energy: hydropower and other energy types	
		Fisheries	
		Tourism	

No agreement or arrangement

	Nature protection	
	Other (please list): [fill in]	
(d) arrang	What topics or subjects of cooperation are included in the agement?	agreement
	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]	

or

	(e) What are the main difficulties and challenges that your country fac agreement or arrangement and its implementation, if any?	es with the
	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]	
2 ((f) What are the main achievements in implementing the agrarrangement and what were the keys to achieving such success? [achievements implementing the agreement: A common vision to development; ownership of programme and projects; creation of a smooth regional integration; Keys to achieving success: political will; good neinneed for regional cooperation.	The main the basin path for a
	Economically prosperous, socially just, and environmentally healthy deve the Cubango-Okavango River Basin.	lopment of
S 1	To establishment of Joint River Basin Commission; establishment of Secretariat for river basin commission; design of basin-wide Strategic Ackeys to achieving successes: political will; relations of good neighborommon vision among riparian countries]	ction Plan;
8	(g) Please attach a copy of the agreement or arrangement or provide address of the document (<i>please attach document or insert web applicable</i>): [OKACOM: https://www.okacom.org/]	
	Is your country a member of any joint body or mechanism for this agrarrangement?	reement or
Yes 🔀	/No 🗌	
If no, w	hy 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 n	nechanism
,	(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) basin,	Does the joint body or mechanism cover the entire transboundary bas part of a basin or group of basins?	sin, sub-	
Yes 🔀	/No [
	(c) mecha of Nat	anism? (Please list): [Republic of Angola, Republic of Botswana and I	-	
	(d) mecha	Are there any riparian States that are not members of the joint anism? (please list): [None]	body or	
	(e) the join	If not all riparian States are members of the joint body or mechanism h int body or mechanism cooperate with them?	ow does	
		No cooperation		
		They have observer status		
Embas	ssies]	Other (please describe): [Diplomatic relations through plenipo	otentiary	
	(f) tick th	s the joint body or mechanism cover the entire transboundary basin, subofa basin or group of basins? ch States (3 States of SADC region) are members of the joint body or ? (Please list): [Republic of Angola, Republic of Botswana and Republic] there any riparian States that are not members of the joint body or ? (please list): [None] at all riparian States are members of the joint body or mechanism how does does do yor mechanism cooperate with them? cooperation y have observer status cr (please describe): [Diplomatic relations through plenipotentiary as the joint body or mechanism have any of the following features (please as applicable)? cretariat the secretariat is a permanent one, is it a joint secretariat or a each country host its own secretariat? (Please describe): [Permanent eterial based in Baborone – Republic of Botswana] absidiary body or bodies see list (e.g., working groups on specific topics): [The Basin-wide Forun ango Basin Steering Committee (OBSC) is the technical advisory body to The OBSC provides technical leadership to permanent or temporary ttees or task forces that are established according to the nature and matter. The OKACOM Water Resources Technical Committee (WRTC); stitutional and Policy Development Technical Committee; The OKACOM Biodiversity Technical Committee] cr features (please list): [fill in] at are the tasks and activities of this joint body or mechanism? it iffication of pollution sources a collection and exchange t monitoring menance of joint pollution inventories ing emission limits covation of joint water quality objectives		
		A secretariat		
		A subsidiary body or bodies		
the Co subsid specifi The O	ommissiary conticity of KACO	Okavango Basin Steering Committee (OBSC) is the technical advisory sion. The OBSC provides technical leadership to permanent or terommittees or task forces that are established according to the nat the matter. The OKACOM Water Resources Technical Committee (Value of the Committee)	body to mporary ure and WRTC);	
		Other features (please list): [fill in]		
	(g)	What are the tasks and activities of this joint body or mechanism? ³		
		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		

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.

	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) opera	What are the main difficulties and challenges that your country faces tion of the joint body or mechanism, if any?	with the
	Governance issues	
	Please describe, if any: []	
	Unexpected planning delays	
	Please describe, if any: [fill in]	
	Lack of resources	
	Please describe, if true: [human capacity; technical; financial resource	ees]
	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	
systen	n]	Please describe, if any: [inefficient functioning of hydrometeon	rological
		Others (please list and describe, as appropriate): [fill in]	
	(i)	Does the joint body or mechanism, or its subsidiary bodies meet regu	larly?
	Yes 🔀		
	If yes,	, how frequently does it meet?	
		More than once per year	
		Once per year	
		Less than once per year	
	_	What are the main achievements with regards to the joint body or med cooperation environment; common view for the Basin developme bourly relations.]	
	(k) coope	Did the joint body or mechanism ever invite a non-riparian coastal rate?	State to
Yes []/No [>		
		, please give details. If no, why not, e.g. are the relevant coastal Sta an States and therefore already members of the joint body or mechani	
4.	-	joint objectives, a common strategy, a joint or coordinated management plan been agreed for the basin, sub-basin, part of a basin or group of b	_
Yes 🔀	/No		
		provide further details: [Transboundary Diagnostic Analysis, Strategi Cubango/Okavango River Basin]	c Action
5.	protec	is the transboundary basin,—sub-basin, part of a basins or group of eted, including the protection of ecosystems, in the context of sustain al water use?	
	_	ation of urbanization, deforestation, and sand and l extraction.	
	Environment Enviro	onmental flow norms, including consideration of levels and nality	
		quality protection, e.g. nitrates, pesticides, faecal coliforms, metals	
	Water	related species and habitats protection	
	Other	measures (please describe): [fill in]	
6.	(a) States	Does your country regularly exchange information and data with other in the basin, sub-basin, part of a basin or group of basins?	riparian
Yes 🔀	/No [
	(b)	If yes, how often:	

		More than once per year	
		Once per year	
		Less than once per year	
	(c) meetir	Please describe how information is exchanged (e.g. in connectings of joint bodies): [Through reports and documents posted in the well	
	(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	\boxtimes
		Other subjects (please list): [fill in]	
		Other comments, e.g. spatial coverage of data and information exchain]	nge: [fill
	(e)	Is there a shared database or information platform?	
Yes 🔀	/No [
	(f)	Is the database publicly available?	
Yes 🔀	/No [
f yes,	please	provide the web address: [https://www.okacom.org/]	
	(g)	What are the main difficulties and challenges to data exchange, if app	olicable?
	Freque	ency of exchanges	
	Timin	g of exchanges	
	Comp	arability of data and information	
	Limite	ed spatial coverage	
	Inadeo	quate resources (technical and/or financial)	
	Other	(please describe): [fill in]	
	Additi	ional comments: [fill in]	
		What are the main benefits of data exchange on the basin, sub-basin, or group of basins? (<i>please describe</i>): [Confidence building among : Joint Planning: Field work in the context of joint hydrological mo	Member

Greater support from cooperation partners; Greater control over extreme events and better prevention]

		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 monitor	oring cover?			
			Hydrological	Ecological	Chemical	
Border	surfa	ace waters				
Surface	wate	ers in the entire basin				
Surface waterco		ers on the main				
Surface	wate	ers in part of the basin				
I	oleas	e describe [fill in]				
Fransbo or unco		ary aquifer(s) (connected ted)				
iparian	hyd	n the territory of one raulically connected to a ry river or lake				
		National monitoring stations con or common stations	nected through a r	etwork		
		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 achieve	ments regarding jo	oint monitorii	ng, if any: [in	
((d)	Please describe any difficulties e	xperienced with jo	oint monitorii	ng: [fill in]	
		ne riparian States carry out joint a , part of a basin or group of basins		transbounda	ry basin, sub	
Yes 🔀	/No [
-		, please provide the date of the last surface waters or groundwaters of	•			

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] What are the measures implemented to prevent or limit the transboundary impact of 10. accidental pollution? Notification and communication Coordinated or joint early warning or alarm system for accidental water pollution Other (please list): [fill in] X No measures If not, why not? What difficulties does your country face in putting in place such measures?: [There is no agreement for prevention or limition of the transboundary impact of accidental pollution] What are the measures implemented to prevent or limit the transboundary impact of 11. extreme weather events and climate change? Notification and communication \boxtimes 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: [In case of a natural disaster, a notification is released by the Angolan government, through its Ministry of Affairs, to the Basin Member States] 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 X/No If yes, how? (Reference Group) Stakeholders have observer status in a joint body X or mechanism Stakeholders have an advisory role in the joint body Stakeholders have a decision-making role in the joint body

and assessment methodology applied: [TDA - Transboundary Diagnostic Analisis,

If yes, please specify the stakeholders for the folhi 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 ⁴	
Public involvement	
Other (<i>please specify</i>): []	

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.

⁴ Or, where applicable, aquifer management plans.

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. 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 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: [Cunene]

In the case of an aquifer, what is the nature of the aquifer and its relation with the river

List of the riparian States: [Republic of Namibia]

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: [AF15 – Coastal Sedimentary Basin IV]		
Unknown		
Percentage of your country's territory within the basin, sub-basin, pargroup of basins: $[83.30\%]$	rt of a	basin or
Is there one or more transboundary (<u>bilateral</u> or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?		

Please insert the name of the agreement(s) or arrangement(s) [The Permanent Joint Technical Commission – PJTC Agreement. The CTPC is a technical commission created to coordinate the actions of the Republic of Angola and Namibia on the actions to be taken to guarantee sustainable benefits for the Cunene River basin, made up of technicians from both countries.]

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

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

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.

	Agreement or arrangement is under development	
	No agreement or arrangement	
	If there is no agreement or arrangement or it is not in force why not and provide information on any plans to address the	
trans ques	sere is no agreement or arrangement and no joint body sboundary basin, sub-basin, part of a basin or group o tion 4; if there is no agreement or arrangement, but a jo go to question 3.	f basins then jump to
arra	stions 2 and 3 to be completed for each bilateral or mungement in force in the transboundary basin, sub-basin, pasins.	
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 a	all riparian States?
	Yes No	
	Additional explanations? [fill in]	
	Or, if the agreement or arrangement relates to a sub-basin, do basin?	pes it cover the entire sub-
	Yes /No	
	Additional explanations? [fill in]	
	Which States (including your own) are bound by the agr (Please list): [Republic of Angola and Republic of Namibia]	reement or arrangement?
	(b) If the agreement or arrangement relates to a river or does it also cover aquifers?	lake basin or sub-basin
	Yes ⊠/No □	
	If yes, please list the aquifers covered by the agreement or a	rrangement: [fill in]
	(c) What is the sectoral scope of the agreement or arrang	gement?
	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	\bowtie

	Fisheries	
	Tourism	
	Nature protection	
	Other (please list): [fill in]	
(d) arrang	What topics or subjects of cooperation are included in the agement?	greement or
	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) agreer	What are the main difficulties and challenges that your country faces nent or arrangement and its implementation, if any?	with the
		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]	
	achieved develor region need f	What are the main achievements in implementing the agrees gement and what were the keys to achieving such success? [The examplement implementing the agreement: A common vision to the examplement; ownership of programme and projects; creation of a smooth put integration; Keys to achieving success: political will; good neighbor regional cooperation. Stablishment of Joint River Basin Commission; establishment of Petersenance.	he main ne basin ath for a porliness;
	keys to	ariat for river basin commission; design of basin-wide Strategic Acti o achieving successes: political will; relations of good neighborliness; among riparian countries]	
		Please attach a copy of the agreement or arrangement or provide as of the document (please attach document or insert web additable): []	
3.	-	ar country a member of any joint body or mechanism for this agreement?	ment or
Yes 🛭	/No [
If no,	why no	t? (please explain): [fill in]	
When	e there	is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or me etick one)?	chanism
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
		Other (<i>nlease describe</i>): [fill in]	

	(b) basin,	Does the joint body or mechanism cover the entire transboundary bar part of a basin or group of basins?	sin, sub-	
Yes 🔀	/No [
	(c) mecha	Which States (2 States of SADC region) are members of the joint anism? (Please list): [Republic of Angola and Republic of Namibia]	body or	
	(d) Are there any riparian States that are not members of the joint body or mechanism? (please list): [None]			
	(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		
Embas	ssies]	Other (please describe): [Diplomatic relations through plenipolities]	otentiary	
	(f) tick th	Does the joint body or mechanism have any of the following features the ones applicable)?	s (please	
		A secretariat		
		If the secretariat is a permanent one, is it a joint secreta does each country host its own secretariat? (Please describe): []	ıriat or	
		A subsidiary body or bodies		
_		Please list (e.g., working groups on specific topics): [Committee for I Committee for the Master General Plan of the Basin; Task force Calue aynes Project]		
		Other features (please list): [fill in]		
	(g)	What are the tasks and activities of this joint body or mechanism? ³		
		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		

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.

	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	\boxtimes
	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) opera	What are the main difficulties and challenges that your country faces tion of the joint body or mechanism, if any?	with the
	Governance issues	
portion of th	Please describe, if any: [Lack of an updated Master Plan in the e River Basin]	Angolan
	Unexpected planning delays	
	Please describe, if any: [fill in]	
	Lack of resources	
	Please describe, if true: [human capacity; technical; financial resource	es]
	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	
system]	Please describe, if any: [inefficient functioning of hydrometeon	rological

Others (please list and describe, as appropriate): [It is necessary to consider that for the Cunene River basin there is already a plan for management and coordination at the level of hydraulic infrastructures.]

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

	(-)	Deep integral early of integration, of the sweet many course integral	
	Yes 🔀	/No_	
	If yes,	how frequently does it meet?	
		More than once per year	
		Once per year	
		Less than once per year	
	_	What are the main achievements with regards to the joint body or med cooperation environment; common view for the Basin development bourly relations]	
	(k) coope	Did the joint body or mechanism ever invite a non-riparian coastal rate?	State to
Yes []/No [>		
		please give details. If no, why not, e.g. are the relevant coastal States and therefore already members of the joint body or mechanis	
1.	-	joint objectives, a common strategy, a joint or coordinated management plan been agreed for the basin, sub-basin, part of a basin or group of b	-
Yes 🔀	/No		
f yes,	please	provide further details: []	
5.	protec	is the transboundary basin,—sub-basin, part of a basins or group of ted, including the protection of ecosystems, in the context of sustainal al water use?	
	_	ation of urbanization, deforestation, and sand and extraction.	
	Environment Enviro	onmental flow norms, including consideration of levels and nality	
		quality protection, e.g. nitrates, pesticides, faecal coliforms, metals	
	Water	-related species and habitats protection	
	Other	measures (please describe): [fill in]	
5.	(a) States	Does your country regularly exchange information and data with other in the basin, sub-basin, part of a basin or group of basins?	ripariar
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 connecting	on with
		ngs of joint bodies): [Through reports and documents]	
	(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 exchanin]	nge: [fill
	(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: []	
	(g)	What are the main difficulties and challenges to data exchange, if app	licable?
	Freque	ency of exchanges	
	Timin	g of exchanges	
	Comp	arability of data and information	
	Limite	ed spatial coverage	
		quate resources (technical and/or financial)	
	Other	(please describe): [fill in]	
		ional comments: [fill in]	
	(h)	What are the main benefits of data exchange on the basin, sub-basin, or group of basins? (<i>please describe</i>): [fill in]	part of a
7.		e riparian States carry out joint monitoring in the transboundary basin, su f a basin or group of basins?	ıb-basin,
Yes []/No [>		
	(a)	If yes, what does the joint manitoring cover?	

			Hydrological	Ecological	Chemical
Bord	er surfa	ace waters			
Surfa	ice wat	ers in the entire basin			
	ice wat	ers on the main			
Surfa	ice wat	ers in part of the basin			
	pleas	se describe [fill in]			
	sbound connec	ary aquifer(s) (connected ted)			
ripar	ian hyd	n the territory of one raulically connected to a rry river or lake			
	(b)	If joint monitoring is carried out,	how is this done?		
		National monitoring stations con or common stations	nected through a r	etwork	
		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) in]	Please describe the main achieve	ments regarding jo	oint monitorii	ng, if any: [fil
	(d)	Please describe any difficulties es	xperienced with jo	int monitorir	ng: [fill in]
8.		he riparian States carry out joint a n, part of a basin or group of basins?		transbounda	ry basin, sub
Yes []/No	\boxtimes			
	(e.g.,	s, please provide the date of the last surface waters or groundwaters or assessment methodology applied: [aly, pollution sour		
9.	Have	the riparian States agreed to use jo	int water quality s	tandards?	
Yes []/No				
	(plea	s, what standards have been appli se specify which), or have natio ted? [fill in]	-	_	

10.	what are the measures implemented to prevent or limit the transboundary i accidental pollution?	mpact of
	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 in place such measures?: [There is no agreement for prevention or line the transboundary impact of accidental pollution]	
11.	What are the measures implemented to prevent or limit the transboundary i extreme weather events and climate change?	mpact of
	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 in place such measures?: [fill in]	putting
12.	Are procedures in place for mutual assistance in case of a critical situation?	
Yes 🔀]/No [_]	
	please provide a brief summary: [In case of a natural disaster, a notification is Angolan government, through its Ministry of Affairs, to the Basin Member	
13.	Are the public or relevant stakeholders involved in transboundary water manin the basin, sub-basin, part of a basin or group of basins?	agement
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 ⁴	
Public involvement	
Other (please specify): []	

⁴ Or, where applicable, aquifer management plans.

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. 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 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: [Cuvelai]

In the case of an aquifer, what is the nature of the aquifer and its relation with the river

List of the riparian States: [Republic of Namibia]

or lal	ke basin:		
Unco	nfined aquifer connected to a river or lake		
Unco	nfined aquifer with no or limited relation with surface water		
Confi	ned aquifer connected to surface water		
Confi	ned aquifer with no or limited relation with surface water		
Other			
Pleas	e describe: [AF13- Cuvelai-Etosha (Ohangwena)]		
Unkn	own		
	entage of your country's territory within the basin, sub-basin, par p of basins: [32,593%]	t of a	basin or
1.	Is there one or more transboundary (bilateral or multilateral) a arrangement(s) on this basin, sub-basin, part of a basin or group of ba	_	ent(s) or
	One or more agreements or arrangements exist and are in force		

Agreement or arrangement developed but not in force

Watercourse Commission – CUVECOM Agreement]

Agreement or arrangement is under development

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

Please insert the name of the agreement(s) or arrangement(s) [The Cuvelai

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.

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.

		ere is no agreement or arrangement or it is not in force, please expla not and provide information on any plans to address the situation: [fill	
ran ques	sbound tion 4;	no agreement or arrangement and no joint body or mechanism lary basin, sub-basin, part of a basin or group of basins then if there is no agreement or arrangement, but a joint body or me question 3.	jump to
arra		2 and 3 to be completed for each bilateral or multilateral agree nt in force in the transboundary basin, sub-basin, part of a basin	
2.	(a)	Does this agreement or arrangement specify the area subject to coope	eration?
	Yes	⊠/No □	
	If ye	s, does it cover the entire basin or group of basins and all riparian State	s?
	Yes	∑/No	
	Addi	itional explanations? [fill in]	
	Or, i basii	f the agreement or arrangement relates to a sub-basin, does it cover the en?	ntire sub-
	Yes	□/No □	
	Addi	itional explanations? [fill in]	
		ch States (including your own) are bound by the agreement or arrangese list): [Republic of Angola and Republic of Namibia]	ngement?
	(b) does	If the agreement or arrangement relates to a river or lake basin or s it also cover aquifers?	ub-basin
	Yes	⊠/No	
	If ye	s, please list the aquifers covered by the agreement or arrangement: [fil	l 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 on	e or several water uses or sectors, please list (check as appropriate):	
	Wat	er uses or sectors	
		Industry	
		Agriculture	
		Transport (e.g., navigation)	
		Households	
		Energy: hydropower and other energy types	
		Fisheries	
		Tourism	

No agreement or arrangement

	Nature protection	
	Other (please list): [fill in]	
(d) arrang	What topics or subjects of cooperation are included in the agement?	agreement or
	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) agreer	What are the main difficulties and challenges that your country f ment or arrangement and its implementation, if any?	aces with the
		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]	
	develo a reg	What are the main achievements in implementing the agement and what were the keys to achieving such success? wements implemetenting the agreement: A common vision to proper to opment; ownwership of programme and projects; creation of a smagional integration; Keys to achieving success: political orthoodness_neighborliness; need for regional cooperation.	The mair to the basir ooth path for
		inably managed basin with a safe, resilient and prosperous popu ELAI BASIN.	llation of the
	Secret keys	establishment of Joint River Basin Commission; establishment of tariat for river basin commission; design of basin-wide Strategic to achieving successes: political will; relations borhoodnessneighborliness; common vision among riparian country.	Action Plan of good
		Please attach a copy of the agreement or arrangement or provess of the document (please attach document or insert web cable): [CUVECOM: https://www.cuvecom.org/about/]	
3.		ar country a member of any joint body or mechanism for this agement?	agreement of
Yes 🔀	/No [
		t? (please explain): [fill in]	
Wher	e there	e is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body of tetick one)?	r mechanism
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
		Other (please describe): [fill in]	

(b) basin,	Does the joint body or mechanism cover the entire transboundary bas part of a basin or group of basins?	sin, sub-
Yes ⊠/No [
(c) mecha	Which States (2 States of SADC region) are members of the joint anism? (Please list): [Republic of Angola and Republic of Namibia]	body or
(d) mecha	Are there any riparian States that are not members of the joint anism? (please list): [None]	body or
(e) the join	If not all riparian States are members of the joint body or mechanism h int body or mechanism cooperate with them?	ow does
	No cooperation	
	They have observer status	
Embassies]	Other (please describe): [Diplomatic relations through plenipo	otentiary
(f) tick th	Does the joint body or mechanism have any of the following features are ones applicable)?	(please
	A secretariat	
	If the secretariat is a permanent one, is it a joint secretar does each country host its own secretariat? (Please describe): [Two Secretariat based one in Ondjiva – Republic of Angola and other in Or – Republic of Namibia]	interim
	A subsidiary body or bodies	
	Please list (e.g., working groups on specific topics): [The Cavelan mittee (OBSC), The Surface Water Committee; The Groundwater Commagement Committee; The Water, Sanitation and Health Management Committee; The Water, Sanitation and Health Management Committee;	nmittee;
	Other features (please list): [fill in]	
(g)	What are the tasks and activities of this joint body or mechanism? ³	
	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	

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) opera	What are the main difficulties and challenges that your country faces ation of the joint body or mechanism, if any?	with the
	Governance issues	
	Please describe, if any: []	
	Unexpected planning delays	
	Please describe, if any: [fill in]	
	Lack of resources	
	Please describe, if true: [human capacity; technical; financial resour	ces]
	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	

syste	m]	Please describe, if any: [inefficient functioning of hydrometer	eorological
		Others (please list and describe, as appropriate): [fill in]	
	(i)	Does the joint body or mechanism, or its subsidiary bodies meet reg	gularly?
	Yes 🔀	√/No□	
	If yes,	how frequently does it meet?	
		More than once per year	
		Once per year	
		Less than once per year	
	_	What are the main achievements with regards to the joint body or mal cooperation environment; common view for the Basin developm courhood relations]	
	(k) coope	Did the joint body or mechanism ever invite a non-riparian coast rate?	al State to
Yes []/No		
		please give details. If no, why not, e.g. are the relevant coastal san States and therefore already members of the joint body or mecha	
4.	_	joint objectives, a common strategy, a joint or coordinated management plan been agreed for the basin, sub-basin, part of a basin or group of	_
Yes	/No		
If yes	, please	provide further details: [Basin-wide IWRM Plan for the basin]	
5.	protec	is the transboundary basin,—sub-basin, part of a basins or group ted, including the protection of ecosystems, in the context of sustainal water use?	
	_	ation of urbanization, deforestation, and sand and extraction.	
	Enviro	onmental flow norms, including consideration of levels and nality	
		quality protection, e.g. nitrates, pesticides, faecal coliforms, metals	
	Water	-related species and habitats protection	
	Other	measures (please describe): [fill in]	
6.	(a) States	Does your country regularly exchange information and data with oth in the basin, sub-basin, part of a basin or group of basins?	er riparian
Yes	No [
	(b)	If yes, how often:	
		More than once per year	
		Once per year	
		Less than once per year	

	(c) meetii	Please describe how information is exchanged (e.g. in connectings of joint bodies): [Through reports and documents posted in the web	
	(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 exchanin]	nge: [fill
	(e)	Is there a shared database or information platform?	
Yes 🔀	/No [
	(f)	Is the database publicly available?	
Yes 🔀	/No [
f yes,	please	provide the web address: [https://www.cuvecom.org/about/]	
	(g)	What are the main difficulties and challenges to data exchange, if app	licable?
	Frequ	ency of exchanges	
	Timin	g of exchanges	
	Comp	arability of data and information	
	Limite	ed spatial coverage	
	Inadeo	quate resources (technical and/or financial)	
	Other	(please describe): [fill in]	
	Additi	ional comments: [fill in]	
	More subsis	What are the main benefits of data exchange on the basin, sub-basin, or group of basins? (<i>please describe</i>): [Sustainable and integrated mana effective actions towards natural disasters; Improvement in metence; Cooperation and good governance; Provide more drinking vient quantities.]	gement; eans of
7.		e riparian States carry out joint monitoring in the transboundary basin, suf a basin or group of basins?	ıb-basin,

Yes ⊠/No				
(a)	If yes, what does the joint mon	itoring cover?		
		Hydrological	Ecological	Chemical
Border surf	ace waters			
Surface wat	ers in the entire basin			
Surface wat watercourse	eers on the main			
Surface wat	ers in part of the basin			
pleas	se describe [fill in]			
Transbound or unconnect	ary aquifer(s) (connected cted)			
riparian hyc	n the territory of one draulically connected to a very river or lake			
(b)	If joint monitoring is carried ou	nt, how is this done?		
	National monitoring stations co or common stations	onnected through a r	etwork	
	Please describe: [fill in]			
	Joint and agreed methodologies	S		
	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) in]	Please describe the main achiev	vements regarding jo	oint monitorii	ng, if any: [fil
(d)	Please describe any difficulties	experienced with jo	int monitorin	ng: [fill in]
	Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?			
Yes/No				

٥.	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: []
9.	Have the riparian States agreed to use joint water quality standards?
Yes 🔀	/No

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] X No measures If not, why not? What difficulties does your country face in putting in place such measures?: [There is no agreement for prevention or limition of the transboundary impact of accidental pollution] 11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change? \boxtimes 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 X/No If yes, please provide a brief summary: [In case of a natural disaster, a notification is released by the Angolan government, through its Ministry of Affairs, to the Basin Member States] 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 X/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

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

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 ⁴	
Public involvement	
Other (please specify): []	

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.

⁴ Or, where applicable, aquifer management plans.

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. 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 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: [Zambeze, Alto Zambeze, Lungué Bungo e Cuando]

List of the riparian States: [Republic of Botswana, Republic of Namibia, Republic of Zimbabwe, Republic of Zambia, Republic of Malawi, Republic of Moçambique and United Republic of Tanzania]

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 aguifer with no or limited relation with surface water X Confined aquifer connected to surface water Confined aquifer with no or limited relation with surface water Other Please describe: [AF14 - Nata-Karoo] Unknown Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [18₂₅51%] 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) [Zambezi Watercouse

Commission - ZAMCOM Agreement

Agreement or arrangement is under development

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.

		ere is no agreement or arrangement or it is not in force, please expla not and provide information on any plans to address the situation: [fill				
trans quest	bound tion 4;	no agreement or arrangement and no joint body or mechanism lary basin, sub-basin, part of a basin or group of basins then if there is no agreement or arrangement, but a joint body or mo question 3.	jump to			
	ngeme	2 and 3 to be completed for each bilateral or multilateral agree nt in force in the transboundary basin, sub-basin, part of a basin				
2.	(a)	Does this agreement or arrangement specify the area subject to coop	eration?			
	Yes	No □				
	If ye	s, does it cover the entire basin or group of basins and all riparian State	s?			
	Yes	∑/No				
	Addi	itional explanations? [fill in]				
	Or, i	f the agreement or arrangement relates to a sub-basin, does it cover the en?	ntire sub-			
	Yes	□/No □				
	Additional explanations? [fill in]					
	(Plea	ch States (including your own) are bound by the agreement or arrangese list): [Republic of Angola, Republic of Botswana, Republic of Namibia, Republic of Zambia, Republic of Malawi, Republic of Moçambique ablic of Tanzania]	Republic of			
	(b) does	If the agreement or arrangement relates to a river or lake basin or s it also cover aquifers?	ub-basin,			
	Yes	✓/No				
	If ye	s, please list the aquifers covered by the agreement or arrangement: [fil	l 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 on	e or several water uses or sectors, please list (check as appropriate):				
	Wat	er uses or sectors				
		Industry				
		Agriculture				
		Transport (e.g., navigation)				
		Households				
		Energy: hydropower and other energy types				
		Fisheries				

No agreement or arrangement

Tourism	
Nature protection	
Other (please list): [fill in]	
(d) What topics or subjects of cooperation are included in the arrangement?	agreement or
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) agreer	What are the main difficulties and challenges that your country farment or arrangement and its implementation, if any?	ces with the
		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]	
	achiev develo a reg	What are the main achievements in implementing the agreement and what were the keys to achieving such success? [vements implemetenting the agreement: A common vision to opment; ownwership of programme and projects; creation of a smooth of integration; Keys to achieving success: political verhoodness neighborliness; need for regional cooperation.	The main the basin oth path for
	Secret keys	establishment of Joint River Basin Commission; establishment of ariat for river basin commission; design of basin-wide Strategic A to achieving successes: political will; relations corhoodness neighborliness; common vision among riparian countries.	Action Plan; of good
		Please attach a copy of the agreement or arrangement or provi as of the document (please attach document or insert web vable): [ZAMCOM: www.zambezicommission.org]	
3.		ar country a member of any joint body or mechanism for this agreement?	greement or
Yes 🔀	/No [
If no, 1	why no	t? (please explain): [fill in]	
Where	e there	is a joint body or mechanism	
	(a) (pleas	If there is a joint body or mechanism, which kind of joint body or <i>e tick one</i>)?	mechanism
		Plenipotentiaries	
		Bilateral commission	
		Basin or similar commission	
		Expert group meeting or meeting of national focal points	
		Other (please describe): [fill in]	
	(b) basin,	Does the joint body or mechanism cover the entire transboundary part of a basin or group of basins?	basin, sub-

3.

Yes ⊠/No □			
	Namib	Which States (8 States of SADC region) are members of the joint anism? (Please list): [Republic of Angola, Republic of Botswana, Republic of Zimbabwe, Republic of Zambia, Republic of Malawi, I çambique and United Republic of Tanzania]	public of
	(d) mecha	Are there any riparian States that are not members of the joint mism? (please list): [None]	body or
	(e) the joi	If not all riparian States are members of the joint body or mechanism hant body or mechanism cooperate with them?	iow does
		No cooperation	
		They have observer status	
Embas	ssies]	Other (please describe): [Diplomatic relations through plenip	otentiary
	(f) tick th	Does the joint body or mechanism have any of the following features <i>e ones applicable</i>)?	s (please
		A secretariat	
		If the secretariat is a permanent one, is it a joint secretar does each country host its own secretariat? (Please describe): [Permanent one, is it a joint secretar does each country host its own secretariat? (Please describe): [Permanent one, is it a joint secretar does each country host its own secretariat? (Please describe): [Permanent one, is it a joint secretariat does each country host its own secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat? (Please describe): [Permanent one, is it a joint secretariat.]	
		A subsidiary body or bodies	
		Please list (e.g., working groups on specific topics): [In the Zamberission, it was instituted the National Steering Committees (NAS ASC convey their views to the ZAMCOM technical committee (ZAMT	C)- <u>was</u>
		Other features (please list): [fill in]	
	(g)	What are the tasks and activities of this joint body or mechanism? ³	
		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	

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.

	Control of implementation	\bowtie
	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) opera	What are the main difficulties and challenges that your country faces tion of the joint body or mechanism, if any?	with the
	Governance issues	
	Please describe, if any: [Lack of an Authority of the River Basin]	
	Unexpected planning delays	
	Please describe, if any: [fill in]	
	Lack of resources	
	Please describe, if true: [human capacity; technical; financial resource	es]
	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	
system]	Please describe, if any: [inefficient functioning of hydrometeor	ological
	Others (please list and describe, as appropriate): [fill in]	

	(i) Does the join	nt body or mechanism, or its subsidiary bodies m	eet regularly?
	Yes No		
	If yes, how frequen	tly does it meet?	
	More than o	nce per year	
	Once per yea	ar	
	Less than on	nce per year	
	• /	e main achievements with regards to the joint bod environment; common view for the Basin devitions]	•
	(k) Did the join cooperate?	at body or mechanism ever invite a non-ripariar	n coastal State to
Yes	/No ⊠		
		details. If no, why not, e.g. are the relevant co therefore already members of the joint body or	
4.		es, a common strategy, a joint or coordinated mar reed for the basin, sub-basin, part of a basin or gr	
Yes	⊠/No□		
If ye	s, please provide furth	ner details: [Strategic Action Plan for the Zambez	zi River Basin]
5.		oundary basin,-sub-basin, part of a basins or g the protection of ecosystems, in the context of	
	Regulation of urbar gravel extraction.	nization, deforestation, and sand and	
	Environmental flow seasonality	v norms, including consideration of levels and	
	Water quality prote- heavy metals	ction, e.g. nitrates, pesticides, faecal coliforms,	
	Water-related speci	es and habitats protection	
	Other measures (ple	ease describe): [fill in]	
6.		ountry regularly exchange information and data w sub-basin, part of a basin or group of basins?	vith other riparian
Yes			
	(b) If yes, how o	often:	
	More than o	nce per year	
	Once per yea	ar	
	Less than on	nce per year	
		ribe how information is exchanged (e.g. in odies): [Through reports and documents posted in	
	(d) If yes on wh	nat subjects are information and data exchanged?	

Boro	der surf	ace waters			
			Hydrological	Ecological	Chemical
	(a)	If yes, what does the joint monitor	ing cover?		
Yes	⊠/No				
7.	part	ne riparian States carry out joint monit of a basin or group of basins?	coring in the trans	boundary bas	sin, sub-basin,
	(h) basir	What are the main benefits of data or group of basins? (please describe	-	basin, sub-b	asin, part of a
	Addi	tional comments: [fill in]			
		r (please describe): [fill in]			
	Inade	equate resources (technical and/or fin	ancial)		
	Limi	ted spatial coverage			
	Com	parability of data and information			
	Timi	ng of exchanges			
	Freq	uency of exchanges			
	(g)	What are the main difficulties and	challenges to dat	a exchange,	if applicable?
If ye	s, pleas	e provide the web address: [www. za	mwis.zambezico	mmission.or	g]
Yes	⊠/No				
	(f)	Is the database publicly available?			
Yes	⊠/No				
	(e)	Is there a shared database or inform	nation platform?		
		Other comments, e.g. spatial cover in]	rage of data and i	nformation e	exchange: [fill
		Other subjects (please list): [fill in]		
		Future planned measures with tran infrastructure development	sboundary impac	ts, such as	
		Climatological information			
		Water abstractions			
		Flows or water levels (including gr	oundwater level	s)	
		Existing hydromorphological alter-	ations (dams, etc	.)	
		Diffuse pollution sources			
		Point source pollution sources			
		Planned measures taken to prevent transboundary impacts	, control or reduc	ee	
		Emission monitoring data			
		Research activities and application	of best available	techniques	
		Environmental conditions			

			Hydrological	Ecological	Chemical		
Surfac	ce wate	ers in the entire basin					
	ce wate	ers on the main					
Surfac	ce wate	ers in part of the basin					
	please	e describe [fill in]					
Transboundary aquifer(s) (connected or unconnected)							
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake		aulically connected to a					
	(b)	If joint monitoring is carried out, ho	ow is this done?				
		National monitoring stations conne or common stations	cted through a n	etwork			
		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) in]	Please describe the main achievement	ents regarding jo	oint monitorir	ng, if any: [fill		
	(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: [ZEO – Zambezi Environmental Outlook, 2015]						
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 standard (please specify which), or have national standards of the riparian States bee applied? [fill in]						

10.	what are the measures implemented to prevent or limit the transboundary i accidental pollution?	mpact of
	Notification and communication	
	Coordinated or joint early warning or alarm system for accidental water pollution	
	Other (please list): [fill in]	
	No measures	\boxtimes
	If not, why not? What difficulties does your country face in in place such measures?: [There is no agreement for prevention or little transboundary impact of accidental pollution]	
11.	What are the measures implemented to prevent or limit the transboundary i extreme weather events and climate change?	mpact of
	Notification and communication	\boxtimes
	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 in place such measures?: [fill in]	n putting
12.	Are procedures in place for mutual assistance in case of a critical situation?	
Yes 🔀]/No [_]	
	please provide a brief summary: [In case of a natural disaster, a notification is Angolan government, through its Ministry of Affairs, to the Basin Member	
13.	Are the public or relevant stakeholders involved in transboundary water mar in the basin, sub-basin, part of a basin or group of basins?	nagement
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 ⁴	
Public involvement	
Other (please specify): []	

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

nation basins	al leve	el as it relates to transboundar easins, part of basins and grou	ary waters. Information on water management a ary waters. Information on specific transbour ups of basins, should be presented in section I	ndary
1.	(a) refer t		nal legislation, policies, action plans and strat ol and reduce any transboundary impact?	egies
Yes 🔀	/No [
	strate 261/1 Regul	gies [Water Law (Law no. 1); Regulation on General Uation on Public Water Supply	e main national laws, policies, action plans 6/02); Regulation on Water Quality (Decree Itilization of Water Resources (Decree no. 82 y and Sanitation (Decree no. 83/14); National Water Council (Decree no. 76/17)]	e no. 2/14);
	(b)	Does your country's legisla	ation provide for the following principles?	
		Precautionary principle	Yes ⊠/No □	
		Polluter pays principle	Yes ⊠/No □	
		Sustainable development	Yes ⊠/No □	
		User pays principle	Yes ⊠/No □	
		national level: [As matter apply for a Water Permit pr	ribe how these principles are implemented a of licencing, it is mandatory to all water userior the utilization of water resources. According to the utilization of Water Resources (Decree no. 82/14)	ers to ng to
			a national licensing or permitting system point source pollution? (e.g., in industry, mi nagement or other sectors)?	
Yes 🔀	No [
If yes,	for wh	ich sectors?		
	Indus	try]
	Minir	ng]
	Energ	у		
	Muni	cipal		
	Lives	tock raising]
	Aqua	culture]
	Other	(please list): [Agriculture/Irr	rigation]	
	Plage	a briafly describe the licens	ing or normitting system indicating whathe	r the

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

If yes, for which sectors? (please list): [Angola is in a process of setting up emission limit regarding wastewater discharges and other point source pollution]

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]

1	information if there are plans to introduce a licensing or permitting system:	[fill in]	
((d) Are the authorized discharges monitored and controlled?		
Yes 🔀	/No 🗌		
į	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): [fill in]		
(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 resources allocation and use efficiency?	e water		
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: [There is in Angola a specific Law on Environmental Assessment]	Impact		
(h) Does your country take specific measures to prevent the pollu groundwaters?	tion of		
Yes 🖂/No 🗌			
If yes, please briefly describe the most important measures: [In main aquifers were snetwork of piezometers, where from are collected samples that allow to monitor the of the water]			
Do your national laws require transboundary environmental impact assessment (EIA)?			
Yes No			
If yes, please briefly describe the legislative basis, and any related implead procedures. [According to the Environmental Law it is mandatory to carry of whenever we interfer either on water bodies or on aquifers]	_		
If not, do other measures provide for transboundary EIA? [fill in]			
Final questions			

IV.

What are the main challenges your country faces in cooperating on transboundary 1. 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 was	iters?
	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 examples: [fill in]	concrete
3.	Please indicate which institutions were consulted during the completic questionnaire	n of the
	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): [fill in]
- 5. Name and contact details of the person(s) who filled out the questionnaire (*please insert*): [Manuel Quintino Instituto Nacional de Recursos Hídricos do Ministério da Energia e Águas, Bairro Talatona, Rua do MAT, Complexo Administrativo Classicos de Talatona, Bloco C/Luanda; Email: manuel.quintino@inrh.gv.ao]

Date: [13th July 2020]	Signature: [U Company
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Thank you very much for taking the time to complete this report.