

Telephone: 3607100
Fax: 3903508



Republic Of Botswana

Department of Water and Sanitation
Private Bag 0029
Gaborone

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UNECE
Transboundary Water Cooperation Reporting
Palais des Nations 8-14 avenue de la Paix
1211 Geneva 10, Switzerland

Att: SDG 6.5.2 team at UNECE

**TRANSMITTAL LETTER- NATIONAL MONITORING REPORT ON SDG
INDICATOR 6.5.2 ON TRANSBOUNDARY WATER COOPERATION FOR
BOTSWANA**

The subject matters refers.

This communique serves to submit the SDG indicator 6.5.2 National Monitoring Report-2020 on Transboundary Water Cooperation for Republic of Botswana.

The SDG 6.5.2 survey was conducted through the following process;

1. **Kick-start meeting** for key stakeholder sensitisation
2. **Data collection;** all technical personnel assigned to River Basin Organisations were given the survey tool to complete.
3. **Data Analysis;** The focal point for SDG 6.5.2 led a team of four (4) personnel, analyzed the submitted data and compiled the Draft survey Report.
4. **Data Validation;** The draft survey report –sections II was sent to the concerned Transboundary Basin Commission Secretariats to validate the data and subsequently the comments were incorporated.

Thank you.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'Bogadi T. Mathangwane'.

Bogadi T. Mathangwane
Botswana Focal point
Director of Water and Sanitation

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: [**Botswana**]

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 operability;

^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
Transboundary river or lake basin (please add rows as needed)

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? ^b	Countries shared with	Surface area of the basin/ sub-basin (in km ²) within the territory of the country	Map and/or GIS shapefile provided (yes/no)	Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the basin/ sub-basin (in km ²) covered by an operational arrangement within the territory of the country
The Permanent Okavango Basin Water Commission (OKACOM)	Basin	Angola Botswana Namibia	62,032.5	No	Entirely	yes	yes	yes	yes	62,032.5
Orange-Senqu River Commission (ORASECOM)	Basin	Namibia Botswana, Lesotho, South Africa	129,000	No	Entirely	Yes	yes	yes	Yes	129,000
Limpopo Watercourse Commission (LIMCOM)	Basin	Botswana, South Africa Zimbabwe, Mozambique	79,040	No	Entirely	Yes	Yes	Yes	Yes	79,040
Zambezi Watercourse Commission (ZAMCOM)	Basin	Angola, Botswana, Namibia, Malawi, Mozambique , Tanzania, Zambia, Zimbabwe	19,100	No	Entirely	Yes	Yes	Yes	Yes	19,100
(A)Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country (in km ²) (do not double count sub-basins)										289,172.5
(B)Total surface area of transboundary basins of rivers and lakes within the territory of the country (in km ²) (do not double count sub-basins)			289,172.5							

Table 2

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

Transboundary aquifers (please add rows as needed)

Name of the transboundary aquifer	Countries shared with	Surface area of the aquifer ^c (in km ²) 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 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the aquifer (in km ²) covered by an operational arrangement within the territory of the country
Stampriet aquifer - ORASECOM	Namibia Botswana, South Africa	17200	yes		entirely	Yes	Yes	Yes	Yes	17,200
Khakhea/Bray Dolomite-ORASECOM	Botswana, South Africa	20 000	Yes		entirely,	Yes	Yes	Yes	Yes	20,000
Ncojane Basin-ORASECOM	Botswana, Namibia	5400	Yes		entirely,	Yes	Yes	Yes	Yes	5,400
Ramotswa aquifer-LIMCOM	Botswana, South Africa	94	Yes		entirely,	Yes	Yes	Yes	Yes	94
Tuli Karoo Sub-Basin-LIMCOM	Botswana, South Africa, Zimbabwe	5 000	Yes		entirely,	Yes	Yes	Yes	Yes	5,000
Eastern Kalahari Karoo Basin-OKACOM	Botswana, Zimbabwe	16,000	Yes		entirely,	Yes	Yes	Yes	Yes	16,000
Northern Kalahari / Karoo Basin / Eiseb	Botswana, Namibia	4 000	Yes		entirely	Yes	Yes	Yes	Yes	4,000

^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.

Name of the transboundary aquifer	Countries shared with	Surface area of the aquifer ^c (in km ²) 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 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the aquifer (in km ²) covered by an operational arrangement within the territory of the country
Graben Aquifer-OKACOM										
Nata Karoo Sub-basin / Caprivi deep-seated Aquifer-ZAMCOM	Angola, Botswana, Namibia, Zambia, Zimbabwe	22 000	Yes		entirely,	Yes	Yes	Yes	Yes	22,000
(C) Sub-total: surface area of transboundary aquifers covered by operational arrangements (in km²)										89,494
(D) Total surface area of transboundary aquifers (in km²)		89,494								

Indicator value for the country

Surface waters:

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

$$A/B \times 100 = 289172.5/289172.5 \times 100 = 100\%$$

Aquifers:

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

$$C/D \times 100 = 89494/89494 \times 100 = 100\%$$

Sustainable Development Goal indicator 6.5.2:

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

$$((A + C)/(B + D)) \times 100 = ((289172.5 + 89494)/(289172.5 + 89494)) \times 100 = 100\%$$

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:

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

Yes /No

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

1. **ZAMCOM Agreement**; Angola, Botswana, Namibia, Malawi, Mozambique, Tanzania, Zambia, Zimbabwe
2. **LIMCOM Agreement** ; Botswana, South Africa Mozambique , Zimbabwe
3. **OKACOM Agreement** ; Angola, Botswana, Namibia
4. **ORASECOM Agreement** ; Botswana, Lesotho , Namibia, South Africa

ZAMBEZI WATERCOURSE COMMISSION (ZAMCOM)

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

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.¹ In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements² or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

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

Name of the transboundary basin, sub-basin, part of a basin or group of basins: [*The Zambezi Watercourse Commission (ZAMCOM)*]

List of the riparian States: [*Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania Zambia, Zimbabwe,*]

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

- Unconfined aquifer connected to a river or lake
- Unconfined aquifer with no or limited relation with surface water
- Confined aquifer connected to surface water

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.

Confined aquifer with no or limited relation with surface water

Other

Please describe: [fill in]

Unknown

Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [1.38%]

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

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

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

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

- **SADC Protocol on Shared Watercourses**
- **Agreement on the Establishment of the Zambezi Watercourse Commission – 13th July 2004**

Agreement or arrangement is under development

No agreement or arrangement

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

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

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

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

Yes /No

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

Yes /No

Additional explanations? [fill in]

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

Yes /No

Additional explanations? [N/A]

Which States (including your own) are bound by the agreement or arrangement? (Please list): [Angola, Botswana, Mozambique, Malawi, Namibia, Tanzania Zambia, Zimbabwe]

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

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [Nata Karoo Sub-basin / Caprivi deep-seated Aquifer]

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

All water uses

A single water use or sector

Several water uses or sectors

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

Water uses or sectors

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

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

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

Procedural and institutional issues

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)

Consultation on planned measures

Mutual assistance

Topics of cooperation

Joint vision and management objectives

Joint significant water management issues

Navigation

Human health

Environmental protection (ecosystem)

Water quality

Water quantity or allocation

Cooperation in addressing floods

Cooperation in addressing droughts

Climate change adaptation

Monitoring and exchange

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

Joint planning and management

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

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

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

1. (f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [*Data Sharing Protocol, Zambezi Strategic Plan(investment Plan), Water Allocation legal equivalence study, Procedures for notification of planned measures*].

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document:

<http://www.zambezicommission.org/publication/zamcom-agreement>

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

Yes /No

If no, why not? (please explain): [n/a]

Where there is a joint body or mechanism

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

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (please describe): [n/a]

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

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (Please list): [**Angola, Botswana, Malawi, Mozambique, Namibia, Tanzania Zambia, Zimbabwe**]

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

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

No cooperation

They have observer status

Other (please describe): [fill in]

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

A secretariat

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

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [**Council of Ministers, Zamcom Technical Committee, Basin Wide stakeholders Coordination committee(BASC),National Stakeholders coordination Commitees(NASC), Zamcom Hyrology Sub-Committee and Working groups,]**

Other features (please list): [n/a]

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

Identification of pollution sources

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.

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

Please describe, if true: [**Lack of funding to develop Chobe Zambezi water transfer scheme to utilize water allocated to Botswana from the basin**]

Lack of mechanism for implementing measures

Please describe, if true: [N/A]

Lack of effective measures

Please describe, if true: [N/A]

Unexpected extreme events

Please describe, if any: [Droughts, Floods]

Lack of information and reliable forecasts

Please describe, if any: [N/A]

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

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

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism? [**Development of regional Investment strategy –ZSP, Water laws equivalence Assessment , Development Gender mainstreaming strategy**]

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

Yes /No

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

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

Yes /No

If yes, please provide further details:

- **Zambezi Basin IWRM Strategy (ZAMSTRAT)**
- **Strategy Plan for the Zambezi Watercourse 2018-2020**

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

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

Environmental flow norms, including consideration of levels and seasonality

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

Water-related species and habitats protection

Other measures (*please describe*): [*All other aspects are covered by the Basin agreement but are not yet implemented due to limited resources*]

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

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [***email, workshops, seminars and data exchange platform - ZAMWIS***]

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

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as infrastructure development

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

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

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

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: [***• Zambezi Water Resources Information System (ZAMWIS)***]

<http://zamwis.zambezicommission.org/>

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

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

Other (*please describe*): [vandalism of Data collection instruments by both human and wild animals]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [**Management of extreme events like floods, droughts. It also build trust and enhance cooperation**]

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

Yes /No

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

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

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

National monitoring stations connected through a network or common stations

Please describe: [Agreed monitoring stations are connected to ZAMWIS]

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: [**Discharge and water levels**]

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

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

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

Yes /No

If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [2015, Zambezi environment outlook case study]

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? [water quality parameters are agreed upon for specific assessment when joint monitoring is carried out]

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

Notification and communication

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

Other (please list): [fill in]

No measures

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

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

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (please list): [ZAMWIS- Flow forecast]

No measures

If not, why not? What difficulties does your country face in putting in place such measures?: [n/a]

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

Yes /No

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

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

Yes /No

If yes, how? (please tick all applicable)

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

If yes, please specify the stakeholders for the joint body or mechanism:
[n/a]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin management plans⁴

Public involvement

Other (please specify): [fill in]

LIMPOPO WATERCOURSE COMMISSION (LIMCOM)

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.⁵ 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

⁴ Or, where applicable, aquifer management plans.

⁵ 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.

have agreements⁶ 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:

[**Limpopo Watercourse Commission (LIMCOM)**]

List of the riparian States: [*Botswana, Mozambique, South Africa, Zimbabwe*]

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

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

Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [18.98%]

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

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

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

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

⁶ 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.

-
2. (a) Does this agreement or arrangement specify the area subject to cooperation?
 Yes /No
 If yes, does it cover the entire basin or group of basins and all riparian States?
 Yes /No
 Additional explanations? [fill in]
 Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?
 Yes /No
 Additional explanations? [N/A]
 Which States (including your own) are bound by the agreement or arrangement?
 (Please list): [*Botswana, Mozambique, South Africa, Zimbabwe*]
- (b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?
 Yes /No
 If yes, please list the aquifers covered by the agreement or arrangement: [*Ramotswa aquifer*]
- (c) What is the sectoral scope of the agreement or arrangement?
- | | |
|-------------------------------|-------------------------------------|
| All water uses | <input checked="" type="checkbox"/> |
| A single water use or sector | <input type="checkbox"/> |
| Several water uses or sectors | <input type="checkbox"/> |
- If one or several water uses or sectors, please list (check as appropriate):*
- Water uses or sectors**
- | | |
|---|-------------------------------------|
| Industry | <input checked="" type="checkbox"/> |
| Agriculture | <input checked="" type="checkbox"/> |
| Transport (e.g., navigation) | <input checked="" type="checkbox"/> |
| Households | <input checked="" type="checkbox"/> |
| Energy: hydropower and other energy types | <input checked="" type="checkbox"/> |
| Fisheries | <input checked="" type="checkbox"/> |
| Tourism | <input checked="" type="checkbox"/> |
| Nature protection | <input checked="" type="checkbox"/> |
| Other (<i>please list</i>): [fill in] | |
- (d) What topics or subjects of cooperation are included in the agreement or arrangement?
- Procedural and institutional issues**
- | | |
|--|-------------------------------------|
| Dispute and conflict prevention and resolution | <input checked="" type="checkbox"/> |
| Institutional cooperation (joint bodies) | <input checked="" type="checkbox"/> |
| Consultation on planned measures | <input checked="" type="checkbox"/> |

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*): [N/A]

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

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

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

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [N/A]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Joint water quality surveys and Ramotswa Aquifer assessment and mapping, this were achieved due to cooperation between member states and financial support of donors mainly GIZ and USAID**]

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

http://www.limpopo.riverawarenesskit.org/LIMPOPORAK_COM/EN/GOVERNANCE/WATER_GOVERNANCE_IN_THE_LIMPOPO/AGREEMENT.HTM

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

Yes /No

If no, why not? (please explain): [N/A]

Where there is a joint body or mechanism

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

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [N/A]

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

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [**Botswana, Mozambique, South Africa, Zimbabwe**]

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

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

No cooperation

They have observer status

Other (*please describe*): [N/A]

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

A secretariat

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

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [Commissioners, Technical Task Team]

Other features (please list): [N/A]

(g) What are the tasks and activities of this joint body or mechanism?⁷

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

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

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

Exchange of experience between riparian States

Exchange of information on existing and planned uses of water and related installations

Settling of differences and conflicts

Consultations on planned measures

Exchange of information on best available technology

Participation in transboundary EIA

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

Management of shared infrastructure

Addressing hydromorphological alterations

Climate change adaptation

Joint communication strategy

Basin-wide or joint public participation and consultation of,

⁷ 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.

for example, basin management plans

Joint resources to support transboundary cooperation

Capacity-building

Any other tasks (*please list*): [N/A]

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

Governance issues

Please describe, if any: [fill in]

Unexpected planning delays

Please describe, if any: [fill in]

Lack of resources

Please describe, if true: [fill in]

Lack of mechanism for implementing measures

Please describe, if true: [fill in]

Lack of effective measures

Please describe, if true: [fill in]

Unexpected extreme events

Please describe, if any: [**Droughts and floods**]

Lack of information and reliable forecasts

Please describe, if any: [**Drought early warning and flash flood forecasting**]

Others (*please list and describe, as appropriate*): [N/A]

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

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

(j) What are the main achievements with regards to the joint body or mechanism?
[Sharing of data and information and joint studies and monitoring activities]

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

Yes /No

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

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

Yes /No

If yes, please provide further details: [IWRM Plan, Limcom Strategic Plan]

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

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

Environmental flow norms, including consideration of levels and seasonality

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

Water-related species and habitats protection

Other measures (*please describe*): [N/A]

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

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [**Meetings and via emails**]

- (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*): [N/A]

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

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

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: [fill in]

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

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (*no database, technical and/or financial*)

Other (*please describe*): [N/A]

Additional comments: [N/A]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [**Avoidance of conflicts, Water resources planning and management**]

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

Yes /No

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

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

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

National monitoring stations connected through a network or common stations

Please describe: [fill in]

Joint and agreed methodologies

Please describe: [fill in]

Joint sampling

Please describe: [fill in]

Common monitoring network

Please describe: [fill in]

Common agreed parameters

Please describe: [**water quality parameters, precipitation, flows and water levels**]

(c) Please describe the main achievements regarding joint monitoring, if any: [**joint water quality monitoring for controlling invasive aquatic weeds**]

(d) Please describe any difficulties experienced with joint monitoring: [**financial resources to do more intense monitoring inclusive of water quantity**]

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: [**Surface water joint assessment was last done in February 2019 on the Tuli block and Oliphants drift by Botswana and South Africa**]

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

Yes /No

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

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

Notification and communication

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

Other (please list): [fill in]

No measures

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

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

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

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

No measures

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

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

Yes /No

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

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

Yes /No

If yes, how? (please tick all applicable)

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

If yes, please specify the stakeholders for the joint body or mechanism:
[Stakeholders were engaged in the vision process]

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 plans⁸

Public involvement

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

THE PERMANENT OKAVANGO BASIN WATER COMMISSION (OKACOM)

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

⁸ Or, where applicable, aquifer management plans.

arrangement where conditions are similar.⁹ 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 agreements¹⁰ 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: [*The Permanent Okavango Basin Water Commission (OKACOM)*]

List of the riparian States: [*Angola, Botswana, Namibia*]

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

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

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

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

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

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

- **SADC Protocol on Shared Watercourses**

Agreement between the Governments of the Republic of Angola, the Republic of Botswana and the Republic of Namibia on the Establishment of a Permanent Okavango River Basin Water Commission (OKACOM) Windhoek

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

⁹ 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.

¹⁰ 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.

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

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

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

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

Yes /No

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

Yes /No

Additional explanations? [fill in]

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

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?
(Please list): [*Angola, Botswana, Namibia*]

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

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [*Eastern Kalahari Karoo Basin, Northern Kalahari / Karoo Basin / Eiseb Graben Aquifer*]

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

All water uses

A single water use or sector

Several water uses or sectors

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

Water uses or sectors

Industry

Agriculture

Transport (e.g., navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

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

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

Procedural and institutional issues

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

Topics of cooperation

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

Monitoring and exchange

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

Joint planning and management

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

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

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

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

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Data Sharing Protol, Okacom Strategic Plan**), **Aquatic health monitoring, management plan**]

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

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

Yes /No

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

Where there is a joint body or mechanism

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

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

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

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): **Angola, Botswana, Namibia**

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

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

- No cooperation
- They have observer status

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

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

A secretariat

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

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [Forum of ministers, Council of commissioners, Okavango basin Steering Water resources Technical committee, Institutional and Policy development technical committee, Biodiversity and Environment Technical Committee, Land Management Technical Committee, Socio Economic land Management Technical Committee and working groups]

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

(g) What are the tasks and activities of this joint body or mechanism?¹¹

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

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

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

Exchange of experience between riparian States

Exchange of information on existing and planned uses of water and related installations

Settling of differences and conflicts

Consultations on planned measures

Exchange of information on best available technology

Participation in transboundary EIA

Development of river, lake or aquifer basin management or

¹¹ 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.

-
- action plans
 - Management of shared infrastructure
 - Addressing hydromorphological alterations
 - Climate change adaptation
 - Joint communication strategy
 - Basin-wide or joint public participation and consultation of, for example, basin management plans
 - Joint resources to support transboundary cooperation
 - Capacity-building
 - Any other tasks (*please list*): [fill in]

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

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

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

Yes /No

If yes, how frequently does it meet?

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

(j) What are the main achievements with regards to the joint body or mechanism? [**Water allocation Strategy.**]

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

Yes /No

If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism? [The coastal States are also riparian States and therefore already members of the joint body or mechanism(Angola and Namibia)]

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

Yes /No

If yes, please provide further details: [The member states developed Strategic Action Plan for the basin, supported by National Action Plans (NAP) to address needs of each member state and sustainable management of the basin in addition there is an agreed basin wide vision that direct the activities of the entire basin, <https://www.okacom.org/okacom-strategic-action-programme-sap>]

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

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

Environmental flow norms, including consideration of levels and seasonality

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

Water-related species and habitats protection

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

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

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [*email, phone calls,*]

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

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information
- Future planned measures with transboundary impacts, such as infrastructure development
- Other subjects (*please list*): [fill in]
- Other comments, e.g. spatial coverage of data and information exchange: [fill in]

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

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: [N/A]

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

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

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

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [**Management of extreme events like floods, droughts, water quality. It also build trust and enhance cooperation**]

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

Yes /No

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

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

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

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

National monitoring stations connected through a network or common stations

Please describe: [the joint monitoring is carried out on key stations that are listed and agreed upon by the three states on the data sharing protocol]

Joint and agreed methodologies

Please describe: [The joint water resources monitoring is carried out with agreed methodologies and equipment and applicable international WMO standards]

Joint sampling

Please describe: [The joint water resources monitoring is carried out with agreed methodologies and equipment and applicable to international WMO standards]

Common monitoring network

Please describe: [the joint monitoring is carried out on key stations that are listed and agreed upon by the three states on the data sharing protocol]

Common agreed parameters

Please describe: [the joint monitoring is carried out on key stations for agreed parameters that are listed and agreed upon by the three states on the data sharing protocol]

(c) Please describe the main achievements regarding joint monitoring, if any: *[maintain and sustenance of the basin resources for equitable sharing, Management of extreme events like floods, droughts, water quality. It also build trust and enhance cooperation]*

(d) Please describe any difficulties experienced with joint monitoring: *[Inadequate resources]*

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

Yes /No

If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [November 2019, Joint water resources monitoring of water quality and quantity, the standardised WMO water quantity standards where utilised.]

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? [standards under the WMO water standards]

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

Notification and communication

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

Other (please list): [fill in]

No measures

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

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

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (please list): [fill in]

No measures

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

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

Yes /No

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

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

Yes /No

If yes, how? (There is a subsidiary body that accommodate public opinion- National Stakeholder's coordination committee(NASC);Through support of funding organs the stakeholder consultation has been prioritised for every project or arrangement that is made within the whole basin. Intergrated water resources management priciples have been comprehensively applied within the basin, the technical bodies within the joint body agreement consists of departmental and ministireal division delegates within the priority sectors for each riparian states that forms the joint body of the basin.)

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

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

Intergovernmental organizations	<input checked="" type="checkbox"/>
Private sectors organizations or associations	<input type="checkbox"/>
Water user groups or associations	<input checked="" type="checkbox"/>
Academic or research institutions	<input checked="" type="checkbox"/>
Other non-governmental organizations	<input checked="" type="checkbox"/>
General public	<input checked="" type="checkbox"/>
Other (please specify): [fill in]	
Availability of information to the public	<input checked="" type="checkbox"/>
Consultation on planned measures or river basin management plans ¹²	<input type="checkbox"/>
Public involvement	<input type="checkbox"/>
Other (please specify): [fill in]	

ORANGE-SENQU COMMISSION (ORASECOM)

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.¹³ 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 agreements¹⁴ 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:
[ORANGE-SENQU COMMISSION]

List of the riparian States: **[Botswana, Lesotho, Namibia, South Africa]**

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

Unconfined aquifer connected to a river or lake	<input type="checkbox"/>
Unconfined aquifer with no or limited relation with surface water	<input checked="" type="checkbox"/>
Confined aquifer connected to surface water	<input type="checkbox"/>
Confined aquifer with no or limited relation with surface water	<input type="checkbox"/>

¹² Or, where applicable, aquifer management plans.

¹³ 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.

¹⁴ 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.

Other

Please describe: [fill in]

Unknown

Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [12.9%]

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

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

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

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

- **SADC Protocol on Shared Watercourses**
- **Agreement for the Establishment of the Orange-Senqu Commission' on November 3rd, 2000 (currently being revised)**

<http://www.orangesenqurak.com/UserFiles/File/ORASECOM/ORASECOM%20Agreement%202000.pdf>

Agreement or arrangement is under development

No agreement or arrangement

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

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

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

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

Yes /No

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

Yes /No

Additional explanations? [fill in]

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

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?
(Please list): [**Botswana, Lesotho, Namibia, South Africa**]

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

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [*Stampriet aquifer, Khakhea/Bray Dolomite, Ncojane Basin*]

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

- All water uses
- A single water use or sector
- Several water uses or sectors

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

Water uses or sectors

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

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

Procedural and institutional issues

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

Topics of cooperation

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

Climate change adaptation

Monitoring and exchange

Joint assessments

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Elaboration of joint water quality objectives

Common early warning and alarm procedures

Exchange of experience between riparian States

Exchange of information on planned measures

Joint planning and management

Development of joint regulations on specific topics

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

Management of shared infrastructure

Development of shared infrastructure

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

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

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

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

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

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

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

- *Sharing of water across countries; Example Water supply from south Africa to water scarce are in Botswana eg Middlepits Cluster*
- *Management of invasive plant species at Stampriet aquifer area (the invasive species plant has significant contribution on depletion of aquifer as they have long roots and abstract significant amount of water)*

- **Joint assessments to inform decision for management of the basin ; e.g 2nd joint basin survey, education awareness, water demand management, transboundary diagnostic analysis**
- **Improvement livelihood of the communities in the basin**
- **Joint capacity building programmes (eg. Courses on international law on Transboundary Waters, IWRM Principles, Water Resources and Yield Modelling)**

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

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

Yes /No

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

Where there is a joint body or mechanism

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

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

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

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

Yes /No

- (c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [**Botswana, Lesotho, Namibia, South Africa**]

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

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

No cooperation

They have observer status

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

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

A secretariat

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

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [**Forum of Parties (Ministers of water), Commissioners, Technical Committees, Working groups (Groundwater hydrology, surface water, Water quality, Gender mainstreaming, Finance)**]

Other features (please list): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?¹⁵

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

¹⁵ 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.

Capacity-building

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

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

Governance issues

Please describe, if any: [fill in]

Unexpected planning delays

Please describe, if any: [fill in]

Lack of resources

Please describe, if true: [**Insufficient funds**]

Lack of mechanism for implementing measures

Please describe, if true: [fill in]

Lack of effective measures

Please describe, if true: [fill in]

Unexpected extreme events

Please describe, if any: [fill in]

Lack of information and reliable forecasts

Please describe, if any: [fill in]

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

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

Yes /No

If yes, how frequently does it meet?

More than once per year

Once per year

Less than once per year

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

- ***Sharing of water across borders ; Water supply from south Africa to Middlepits Cluster in Botswana.***
- ***Management of invasive plant species at Stampriet aquifer area (the invasive species plant has significant contribution on depletion of aquifer as they have long roots and abstract significant amount of water)***
- ***Lesotho – Botswana water transfer scheme]***

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

Yes /No

If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism? [• Other member states are coastal such as Namibia and South Africa]

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

Yes /No

If yes, please provide further details: [

- ***The member states develop National Action Plans (NAP) to address needs of each member state and sustainable management of the basin .***

- ***Integrated Water Resources Management Plan - 2014]***

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

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

Environmental flow norms, including consideration of levels and seasonality

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

Water-related species and habitats protection

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

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

Yes /No

- (b) If yes, how often:

More than once per year

Once per year

Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [***email, meeting***]

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

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

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

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

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: [**• Orange-Senqu Water information Systems (WIS): <http://wis.orasecom.org>**]

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

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (technical and/or financial)

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

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [**• Management of extreme events like floods and droughts, build trust and enhance cooperation**]

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

Yes /No

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

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

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) If joint monitoring is carried out, how is this done?			
National monitoring stations connected through a network or common stations			<input checked="" type="checkbox"/>
<i>Please describe:</i> [fill in]			
Joint and agreed methodologies			<input checked="" type="checkbox"/>
<i>Please describe:</i> [fill in]			
Joint sampling			<input checked="" type="checkbox"/>
<i>Please describe:</i> [fill in]			
Common monitoring network			<input checked="" type="checkbox"/>
<i>Please describe:</i> [fill in]			
Common agreed parameters			<input checked="" type="checkbox"/>
<i>Please describe:</i> [fill in]			
(c) Please describe the main achievements regarding joint monitoring, if any: [fill in]			
(d) Please describe any difficulties experienced with joint monitoring: [fill in]			
8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?			
Yes <input checked="" type="checkbox"/> /No <input type="checkbox"/>			
<i>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: [</i>			
<ul style="list-style-type: none"> • <i>Ongoing management of invasive plant species in the basin- strampiet aquifer</i> • <i>Joint assessments to inform decision for management of the basin ; e.g 2nd joint basin survey, education awareness, water demand management, transboundary diagnostic analysis ; June 2015, and it is conducted every after 5 years]</i> 			
9. Have the riparian States agreed to use joint water quality standards?			
Yes <input checked="" type="checkbox"/> /No <input type="checkbox"/>			
<i>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? [• South African Scoring System (SASS) is used to assess Aquatic Ecosystem Health (AEH)]</i>			
10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?			
Notification and communication			<input checked="" type="checkbox"/>
Coordinated or joint early warning or alarm system for accidental			

water pollution

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

No measures

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

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

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

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

No measures

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

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

Yes /No

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

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

Yes /No

If yes, how? (please tick all applicable)

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

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

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin

-
- management plans¹⁶
- Public involvement
- Other (*please specify*): [fill in]

Please remember to complete section II for each of the transboundary basins, sub-basin, part of a basin or group of basins. Please also remember to attach copies of agreements or arrangements, if any.

III. Water management at the national level

In this section, you are requested to provide general information on water management at the national level as it relates to transboundary waters. Information on specific transboundary basins, sub-basins, part of basins and groups of basins, should be presented in section II and not repeated here.

1. (a) Does your country's national legislation, policies, action plans and strategies refer to measures to prevent, control and reduce any transboundary impact?

Yes /No

If yes, please briefly describe the main national laws, policies, action plans and strategies [Water Policy, IWRM-WE Plan]

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

Precautionary principle Yes /No

Polluter pays principle Yes /No

Sustainable development Yes /No

User pays principle Yes /No

If yes, please briefly describe how these principles are implemented at the national level: [All current developments are aligned to sustainable development goals and the country's vision 2036]

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

Yes /No

If yes, for which sectors?

-
- Industry
 - Mining
 - Energy
 - Municipal
 - Livestock raising
 - Aquaculture

Other (please list): [fill in]

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): [Department of Mines controls all emissions within mines and does routine checks on discard water, Industries signs Trade Effluent Agreement with wastewater treatment authority (Water Utilities Corporation)]

If not, please explain why not (giving the most important reasons) or provide information if there are plans to introduce a licensing or permitting system: [fill in]

(d) Are the authorized discharges monitored and controlled?

Yes /No

If yes, how? (Please tick the ones applicable):

- Monitoring of discharges
- Monitoring of physical and chemical impacts on water
- Monitoring of ecological impacts on water
- Conditions on permits
- Inspectorate

Other means (please list): [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 water resources allocation and use efficiency?

Please tick as appropriate (not all might be relevant)

A regulatory system regarding water abstraction

Monitoring and control of abstractions

Water rights are defined

Water allocation priorities are listed

Water-saving technologies

Advanced irrigation techniques

Demand management activities

Other means (*please list*)

(g) Does your country apply the ecosystems approach?

Yes /No

If yes, please describe how: [N/A]

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

Yes /No

If yes, please briefly describe the most important measures: [Protection zones maps and availed to land and planning authorities]

2. Do your national laws require transboundary environmental impact assessment (EIA)?

Yes /No

If yes, please briefly describe the legislative basis, and any related implementing procedures. [fill in]

If not, do other measures provide for transboundary EIA? [SADC Protocol on shared watercourse, Transboundary Basin Commission Treaties]

IV. Final questions

1. What are the main challenges your country faces in cooperating on transboundary waters?

Differences between national administrative and legal frameworks

Lack of relevant data and information (*limited data and information*)

Difficulties in data and information exchange

Sectoral fragmentation at the national level

Language barrier

Resource constraints

Environmental pressures, e.g. extreme events

Sovereignty concerns

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

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

Improved water management

Enhanced regional integration, i.e. beyond water

Adoption of cooperative arrangements

Adoption of joint plans and programmes

Long-lasting and sustained cooperation

Financial support for joint activities

Stronger political will for transboundary water cooperation

Better knowledge and understanding

Dispute avoidance

Stakeholder engagement

Please list other achievements, keys to achieving success, and/or provide concrete examples: [*Enhance trust among countries, cooperation and ignited joint investment planning*]

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

Joint body or mechanism

Other riparian or aquifer countries

National water management authority

Environment agency/ authority

-
- | | |
|---|-------------------------------------|
| Basin authority (national) | <input checked="" type="checkbox"/> |
| Local or provincial government | <input type="checkbox"/> |
| Geological survey (national) | <input type="checkbox"/> |
| Non-water specific ministries, e.g. foreign affairs, finance, forestry and energy | <input type="checkbox"/> |
| Civil society organizations | <input type="checkbox"/> |
| Water user associations | <input type="checkbox"/> |
| Private sector | <input type="checkbox"/> |
| Other (please list): [fill in] | |

Please briefly describe the process by which the questionnaire was completed:
[1. **Kickstart meeting** for key stakeholder sensitisation; 2. **Data collection**; all technical personnel assigned to River Basin Organisations were given the survey tool to complete. 3 **Data Analysis**; The focal point for SDG 6.5.2 led a team of four (4) personnel, analysed the submitted data and compiled the Draft survey Report. 5 **Data Validation**; The draft survey report –sections II was sent to the concerned Transboundary Basin Commission Secretariats to validate the data and subsequently the comments were incorporated]

4. If you have any other comments please add them here : (***We noticed that the process require funds for hosting key stakhoders workshops throughtout the process; may you consider support for this in future***).

5. Name and contact details of the person(s) who filled out the questionnaire (*please insert*):

[1. David Rax Molefha- Principal Hydrological Engineer; dmolefha@gov.bw / raxdave@gmail.com

2. Gilbert Gwati – Senior Water Engineer; ggwati@gov.bw /gwatig@gmail.com]

Date: [26 June 2020]Signature: [David Molefha]

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



OKACOM

The Permanent Okavango River Basin Water Commission

Agreement between the Governments of the Republic of Angola, the Republic of Botswana and the Republic of Namibia on the Establishment of a Permanent Okavango River Basin Water Commission (OKACOM)

Windhoek, 15 September 1994



AGREEMENT

BETWEEN

THE GOVERNMENTS OF
THE REPUBLIC OF ANGOLA,
THE REPUBLIC OF BOTSWANA AND
THE REPUBLIC OF NAMIBIA

ON THE ESTABLISHMENT OF A

PERMANENT OKAVANGO RIVER BASIN WATER COMMISSION
(OKACOM)

PREAMBLE

The Government's of the Republic of Angola, the Republic of Botswana and the Republic of Namibia (hereinafter referred to as the "Contracting Parties"),

MINDFUL of the need to maintain the tradition of good neighbourliness and close co-operation between the Contracting Parties;

CONSIDERING the existing and emerging socio-economic development programmes in the Okavango River Basin and their influence on the environment;

RECOGNISING the importance and relative paucity of the water resources in the Okavango River Basin in particular and the Southern African Region in general;

ACCEPTING the concepts of environmentally sound natural resource management, sustainable development and the equitable utilization of shared watercourse systems as reflected in the relevant provisions of Agenda 21 of the United Nations Conference on the Environment and Development held at Rio de Janeiro in June 1992;

BEARING in mind the Helsinki Rules on the use of the waters of international rivers as approved at the 52nd Conference of the International Law Association in 1966;

CONSCIOUS that co-operation between the Contracting Parties with regard to the judicious development of joint projects in respect of the water resources of common interest in the Okavango River Basin will contribute towards the prosperity and welfare of their peoples; and

DESIROUS to consolidate the existing friendly relations by promoting coordinated and environmentally acceptable regional water resources development objectives;

HEREBY agrees as follows:

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ARTICLE 1

ESTABLISHMENT OF A PERMANENT OKAVANGO RIVER BASIN
WATER COMMISSION

- 1.1 The Contracting Parties hereby establish and undertake to maintain a Permanent Okavango River Basin Water Commission (**OKACOM**) (hereinafter referred to as the "Commission").
- 1.2 The objective of the Commission shall be to act as technical advisor to the Contracting Parties on matters relating to the conservation, development and utilization of water resources of common interest to the Contracting Parties and shall perform such other functions pertaining to the development and utilisation of such resources as the Contracting Parties may from time to time agree to assign to the Commission.
- 1.3 In furtherance of the stated objective each Contracting Party shall, to the extent permitted by its own laws and procedures, provide such information as the Commission may require for the performance of its functions, and shall notify the Commission of any proposed development or other matter which falls within the Functions of the Commission.

ARTICLE 2

COMPOSITION OF THE COMMISSION

- 2.1 The Commission shall consist of three delegations representing the Contracting Parties.
- 2.2 Each delegation shall consist of not more than three members to be appointed by the Contracting Party concerned.
- 2.3 One member of each delegation shall be designated by the Contracting Party concerned as leader of its delegation.




- 2.4 The leader of a delegation may coopt any number of persons as advisors to his or her delegation, but not more than three may be present at a Commission meeting, unless otherwise agreed upon by the Commission in any particular case.

ARTICLE 3

MEETINGS OF THE COMMISSION

- 3.1 The Commission shall meet at least once per year, but more meetings may take place according to the need for such meetings.
- 3.2 Meetings of the Commission shall be convened as agreed upon by the three delegations. The venue of meetings shall alternate between the Contracting Parties unless the respective delegations determine otherwise for a particular meeting.
- 3.3 The leader of the delegation hosting a particular meeting of the Commission, shall in respect of that meeting be chairperson, and will be responsible for the preparation and timeous distribution of the agenda, including all supporting documentation, the recording of the minutes and making available of a suitable venue.
- 3.4 Six members of the Commission, at least two of whom shall be of each delegation, shall form a quorum.
- 3.5 All decisions of the Commission shall be taken on the basis of consensus between the delegations, but in the event that the Commission fails to reach consensus the matter under discussion shall be referred to the Contracting Parties by the respective delegations for further negotiation.
- 3.6 The Commission shall determine its own rules of procedures.

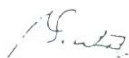

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ARTICLE 4

FUNCTIONS OF THE COMMISSION

The functions of the Commission shall be to advise the Contracting Parties on:

- 4.1 Measures and arrangements to determine the long term safe yield of the water available from all potential water resources in the Okavango River Basin;
- 4.2 The reasonable demand for water from the consumers in the Okavango River Basin;
- 4.3 The criteria to be adopted in the conservation, equitable allocation and sustainable utilization of water resources in the Okavango River Basin;
- 4.4 The investigations, separately or jointly by the Contracting Parties, related to the development of any water resources in the Okavango River Basin, including the construction, operation and maintenance of any water works in connection therewith;
- 4.5 The prevention of the pollution of water resources and the control over aquatic weeds in the Okavango River Basin;
- 4.6 Measures that can be implemented by any one or all the Contracting Parties to alleviate short term difficulties resulting from water shortages in the Okavango River Basin during periods of drought, taking into consideration the availability of stored water and the water requirement within the territories of the respective Parties at that time;
- 4.7 Such other matters as may be determined by the Commission.





ARTICLE 5

POWERS OF THE COMMISSION

- 5.1 In pursuance of the provisions of **Article 4**, the Commission shall in particular have the power to appoint consultants to assist it in the gathering and processing of information on any matter on which it is to advise the Contracting Parties and may exercise any power or make any decision relating thereto as may be agreed upon by the Contracting Parties from time to time.
- 5.2 The advice of the Commission to the Contracting Parties on any matter referred to in **Article 4** shall, if required by a Contracting Party, be contained in a report signed by the leaders of the respective delegations, who shall be responsible for the submission of the report to their respective Governments.
- 5.3 Any report prepared by the Commission on any matter referred to in **Article 4** shall include estimates of the cost involved in the implementation of the advice of the Commission and may include proposals for the apportionment of such costs between the Contracting Parties.
- 5.4 The Commission shall in all its deliberations and recommendations to the Contracting Parties have regard for the interests any other State may have in any water resource of common interest between the Contracting Parties and that State.

ARTICLE 6

FINANCIAL ARRANGEMENTS

- 6.1 Each Contracting Party shall in respect of all meetings of the Commission be responsible for all costs incurred in connection with the attendance and participation of its delegation and of any person coopted as advisor to its delegation by the leader concerned in terms of Article 2.4.
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6.2 The Contracting Party hosting a meeting of the Commission shall be responsible for all costs incurred in making a venue available for the meeting, the preparation and distribution of the agenda and for the recording and distribution of the minutes.

6.3 All other costs incurred or liabilities accepted by the Commission in the performance of its functions and the exercise of its powers, shall be shared equally by the Contracting Parties, unless otherwise agreed by the Commission.

ARTICLE 7

CONCLUDING PROVISIONS

7.1 This Agreement shall come into force on the date of the signing thereof and a Party may withdraw from this Agreement upon the expiry of six months from the date of giving a written notice to that effect to the other Contracting Parties.

7.2 A Contracting Party who has withdrawn from this Agreement, shall cease to enjoy all rights and benefits under this Agreement, but shall remain bound to its obligations hereunder for a period of twelve months from the date of its withdrawal coming into effect.

7.3 Any amendment to this Agreement shall be effected in writing by the Contracting Parties.

7.4 Any dispute as to the interpretation or implementation of any Article of this Agreement shall be settled by the Contracting Parties.



Paul
Tome

IN WITNESS WHEREOF the Contracting Parties hereto, acting through their respective representatives hereunto duly authorised, have caused this Agreement to be signed in their respective names.

DONE at Windhoek on the 15th day of September 1994 in three original texts, two texts in the English and one texts in the Portuguese language, all texts being equally authentic.

Juana Lourenço de Jesus VS

REPUBLIC OF ANGOLA,

Mphahlele

REPUBLIC OF BOTSWANA

M. B. Namibia

REPUBLIC OF NAMIBIA

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AGREEMENT

BETWEEN

THE GOVERNMENTS OF

THE REPUBLIC OF BOTSWANA

THE KINGDOM OF LESOTHO

THE REPUBLIC OF NAMIBIA

AND

THE REPUBLIC OF SOUTH AFRICA

ON THE ESTABLISHMENT OF THE

ORANGE-SENQU RIVER COMMISSION



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P/O RK M
46.7

CONTENTS

PREAMBLE	1
ARTICLE 1: ESTABLISHMENT OF THE ORANGE-SENQU RIVER COMMISSION	2
ARTICLE 2: INSTITUTIONS OF THE COMMISSION	2
ARTICLE 3: MEETINGS OF THE COUNCIL	3
ARTICLE 4: OBJECTIVES OF THE COUNCIL	5
ARTICLE 5: FUNCTIONS OF THE COUNCIL	5
ARTICLE 6: POWERS OF THE COUNCIL	6
ARTICLE 7: OBLIGATIONS OF THE CONTRACTING PARTIES	7
ARTICLE 8: SETTLEMENT OF DISPUTES	10
ARTICLE 9: WITHDRAWAL	11
ARTICLE 10: FINANCIAL ARRANGEMENTS	11
ARTICLE 11: GENERAL AND FINAL PROVISIONS	12

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M.H.
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PREAMBLE

The Governments of the Republic of Botswana, the Kingdom of Lesotho, the Republic of Namibia and the Republic of South Africa (hereinafter jointly referred to as the "Parties" and in the singular as a "Party");

CONSIDERING the relative **paucity** of water resources in the Southern African Region and the need to provide the people in the Region with access to sufficient water supplies;

RECOGNISING the significance of the Orange-Senqu River System (hereinafter referred to as the "River System") as a major water resource in the Region;

CONSCIOUS that collaboration between the Parties with regard to the development of the River System as a water source of common interest could significantly contribute towards the **mutual benefit, peace, security, welfare and prosperity** of their people;

COMMITTED towards the realisation of the principle of equitable and reasonable utilisation, as well as the principle of sustainable development with regard to the River System;

BEARING in mind the Rules on the Non-Navigational Uses of the Waters of International Rivers, approved by the International Law Association at Helsinki in 1966;

RECALLING the Convention on the Law of the Non-Navigational Uses of International Watercourses, adopted by the General Assembly of the United Nations in 1997;

INSPIRED by the spirit of the Protocol on Shared Watercourse Systems in the Southern African Development Community Region;

DESIRING to extend and consolidate the existing tradition of good neighbourliness and friendly relations between the Parties by promoting close and co-ordinated co-operation in the development of all the resources of the River System;

HEREBY AGREE as follows:

[Handwritten signatures and initials]
RK
M. M.
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ARTICLE 1

ESTABLISHMENT OF THE ORANGE-SENQU RIVER COMMISSION

- 1.1 The Parties hereby establish and undertake to maintain the Orange-Senqu River Commission (hereinafter referred to as the "Commission") in accordance with the provisions of this Agreement.
- 1.2 The Commission shall be an international organisation and shall possess international legal personality with the capacity to enter into international agreements and shall further possess legal personality within the legal systems of each of the Parties.
- 1.3 In the absence of an agreement to the contrary, nothing in this Agreement shall affect the rights and obligations of a Party arising from other agreements in force prior to the date this Agreement comes into force for such a Party.
- 1.4 Nothing in this Agreement shall affect the prerogative of any number of the Parties to establish among themselves river commissions with regard to any part of the River System. All such Commissions will be subordinate to this Commission and existing Commissions will liase with this Commission in terms of this Agreement.

ARTICLE 2

INSTITUTIONS OF THE COMMISSION

- 2.1 The highest body of the Commission shall be the Council.
- 2.2 The Council shall consist of one delegation per Party that ratified this Agreement.

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RK
M. V.
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- 2.3 Each delegation shall consist of not more than three permanent members and such other advisers as each Party may determine: Provided that a delegation may be accompanied by not more than three advisers at any meeting of the Council unless otherwise determined by the Council for any particular meeting.
- 2.4 One of the permanent members in the delegation of each Party shall be designated by the Party concerned as the leader of its delegation and shall be a co-chairperson at Council meetings.
- 2.5 Each Party shall expeditiously notify the other Parties of the appointment of its permanent members and the leader of its delegation, as well as of the termination of such appointments.

ARTICLE 3

MEETINGS OF THE COUNCIL

- 3.1 The Council shall meet at least once a year in ordinary session and may meet in extraordinary session at the request of any one of the Parties.
- 3.2 Unless otherwise determined by the Council, ordinary meetings shall take place on a basis of rotation in the country of one of the Parties.
- 3.3 The Council shall determine the date and time of all meetings, including the territory of the Party in which such meeting shall take place.
- 3.4 The leader of the delegation of the Party hosting a particular meeting of the Council, shall in respect of that meeting be the chairperson, and shall be responsible for making a suitable venue available for the meeting.
- 3.5 The chairperson of a meeting of the Council shall be responsible for the preparation and timeous distribution of the agenda, including all supporting documentation, as well as the recording of the minutes of the meeting and the distribution thereof to the Parties within thirty days of that meeting.

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- 3.6 Each delegation to the Council shall have one vote.
- 3.7 No decision of the Council shall be valid unless taken at a meeting attended by at least three of the delegations.
- 3.8 A decision taken at a meeting which was not attended by a delegation of one of the Parties, shall be communicated by the chairperson of that particular meeting to the leader of the delegation not represented at the meeting and shall be binding on such Party unless within thirty days of such leader being notified, the communicating chairperson is informed that such Party is not in agreement with such decision.
- 3.9 The Council shall make every effort to take decisions on the basis of consensus. If all efforts of reaching consensus on a particular matter at a meeting of the Council have been exhausted and no agreement was reached, then the matter shall be dealt with at the next meeting of the Council. In the event of failure to reach agreement at such meeting of the Council, the matter shall be made the subject of negotiations between the Parties.
- 3.10 The Council shall determine its own rules of procedure.

ARTICLE 4

OBJECTIVES OF THE COUNCIL

The Council shall serve as **technical advisor to the Parties** on matters relating to the **development, utilisation and conservation of the water resources** in the River System and shall perform such other functions pertaining to the development and utilisation of water resources as the Parties may agree to assign to the Commission.

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RRK

ARTICLE 5

FUNCTIONS OF THE COUNCIL

- 5.1 The Council shall take the decisions necessary to implement this Agreement.
- 5.2 The Council shall take all measures required to make recommendations, or to advise the Parties, on the following matters:
- 5.2.1 Measures and arrangements to determine the long-term safe yield of the water sources in the River System;
 - 5.2.2 the equitable and reasonable utilisation of the water sources in the River System to support sustainable development in the territory of each Party;
 - 5.2.3 the investigations and studies conducted separately or jointly by the Parties, with regard to the development of the River System, including any project or the construction, operation and maintenance of any water works;
 - 5.2.4 the extent to which the inhabitants in the territory of each Party concerned shall participate in respect of the planning, development, utilisation, protection and conservation of the River System, as well as the harmonisation of policies in that regard and the possible impact on the social, cultural, economic and natural environment;
 - 5.2.5 the standardised form of collecting, processing and disseminating data or information with regard to all aspects of the River System;
 - 5.2.6 the prevention of the pollution of water resources and the control over aquatic weeds in the River System;
 - 5.2.7 contingency plans and measures for responding to emergency situations or harmful conditions resulting from natural causes such as droughts and floods, or from human conduct such as industrial accidents;

J. RK

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5.2.8 the regular exchange of information and consultation on the possible effects of planned measures;

5.2.9 measures with a view to arriving at a settlement of a dispute between two or more of the Parties; and

5.2.10 such other matters as may be determined by the Parties.

ARTICLE 6

POWERS OF THE COUNCIL

6.1 The Council may establish *ad hoc* or standing working groups or committees comprising of representatives of the Parties as each Party may determine.

6.2 The Council may appoint technical experts and consultants to provide expert opinion and advice on any matter referred to in Article 5 and may exercise such powers and make the decisions relating thereto as may be assigned to it in this regard by the Parties.

6.3 The Council shall ensure that advice on any matter referred to in Article 5 shall be contained in a report, signed by the leader of each delegation at the meeting of the Council at which the report is adopted, and such report shall be submitted to the Parties by the respective delegations.

6.4 The Council shall ensure that every report referred to in subArticle 6.3, shall include estimates of the cost involved in the implementation thereof and it may require that proposals be contained in such report for the apportionment of such costs between the Parties.

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ARTICLE 7

OBLIGATIONS OF THE PARTIES

- 7.1 The Parties shall give their full co-operation and support to the implementation of this Agreement as well as the recommendations of the Council.
- 7.2 The Parties shall, in their respective territories, utilise the resources of the River System in an equitable and reasonable manner with a view to attaining optimal and sustainable utilisation thereof, and benefits therefrom, consistent with adequate protection of the River System. The term "equitable and reasonable" shall be interpreted in line with the Revised Protocol on Shared Watercourses in the Southern African Development Community (SADC) Region.
- 7.3 The Parties shall, in utilising the resources of the River System in their territories, take all appropriate measures to prevent the causing of significant harm to any other Party. The term "significant harm" shall be interpreted in line with the Revised Protocol on Shared Watercourses in the Southern African Development Community (SADC) Region.
- 7.4 The Parties shall exchange available information and data regarding the hydrological, hydrogeological, water quality, meteorological and environmental condition of the River System.
- 7.5 A Party planning any project, programme or activity with regard to the River System which may have a significant adverse effect upon any one or more of the other Parties, or which may adversely affect such River System, shall forthwith notify the Council and provide all available data and information with regard thereto.
- 7.6 Unless otherwise agreed, a Party notified as contemplated in subArticle 7.5, shall communicate its reply to the notifying Party within six months.

16 " RK.

- 7.7 In the event that the implementation or execution of any planned measures is of the utmost urgency in order to save life, or to protect public health and safety, or other equally important interests as a result of an emergency situation, the Party planning the measures may immediately proceed with implementation or execution: Provided that in such event a formal declaration of the urgency of the measures shall be communicated to Council.
- 7.8 If so requested by any affected Party or Parties or technical experts or consultants appointed by the Council, a Party shall provide the other Parties as well as technical experts and consultants with data and information which are available or obtainable on any planned project, programme or activity which may have a significant adverse effect upon the other Parties.
- 7.9 For the purposes of this Article, information in respect of a planned project, programme, or activity which may have a significant adverse effect upon any other Party, or which may adversely affect the River System, shall include the findings of an **environmental impact assessment** addressing the effects on the ecosystems of the watercourse as well as the social, cultural, economic and natural environment.
- 7.10 If a Party has reasonable grounds to believe that another Party is planning a project, programme or activity which may have a significant adverse effect upon it, such Party may request the other Party planning the project, programmes or activity to comply forthwith with the provisions of subArticle 7.5. The request shall be accompanied by a documented explanation setting forth its grounds.
- 7.11 The Parties shall employ their best efforts to collect and, where appropriate, to process data and information with regard to the River System, in a manner which facilitates its utilisation by the other Parties, technical experts or consultants who may be appointed by the Council. The Parties shall make every effort to employ the standardised form for collecting, processing and disseminating data and information, where appropriate.
- 7.12 The Parties shall individually and jointly take all measures that are necessary to protect and preserve the River System from its sources and headwaters to its common terminus.
- C RK

7.13 The Parties shall individually and jointly prevent, reduce and control pollution of the River System that may cause significant harm to one or more of the Parties, including harm to the environment, or to human health or safety, or to the ecosystem of the River System.

7.14 The Parties shall, individually and jointly take all measures that are necessary to protect and preserve the estuary of the River System, including the marine environment, taking into account generally accepted international rules and standards.

7.15 The Parties shall take all measures necessary to prevent the introduction of species, alien or new, into the River System that may have a detrimental effect to the ecosystem of the watercourse.

7.16 If two or more of the Parties agree to co-operate in the planning of a project, programme or activity with regard to the use of the River System, either jointly or by way of a continuous exchange of available data and information, and communicate timeously their respective evaluations and findings on the data and information, any specific periods of notification and reply with regard to the projects, programmes or activities shall only apply to the extent agreed to by these Parties.

ARTICLE 8

SETTLEMENT OF DISPUTES

8.1 Any dispute between the Parties arising out of the interpretation or implementation of this Agreement shall be settled amicably through consultation and/or negotiation between them.

AG RK

- 8.2 If the Parties to the dispute have not arrived at a settlement through the means provided for in subArticle 8.1, the dispute may, unless the Parties agree otherwise, be brought before the Tribunal established in terms of Article 16(1) of the Treaty of the Southern African Development Community of 1992, in accordance with the rules and procedures applicable with regard to the function of such Tribunal.
- 8.3 The Parties shall accept the decision of the Tribunal as final and binding.

ARTICLE 9

WITHDRAWAL

- 9.1 At any time after three years from the date on which this Agreement has entered into force for such a Party, that Party may **withdraw** from this Agreement by giving written notice to the other Parties. Any such withdrawal shall take effect on the date specified in the notification, which date may not be less than **twelve months** after such notification. A Party withdrawing from this Agreement shall remain bound to contractual relationships to which it is a party and to its obligations thereunder for the duration of the notification period.

ARTICLE 10

FINANCIAL ARRANGEMENTS

- 10.1 Each Party shall in respect of all meetings of the Council be responsible for all costs incurred in connection with the attendance and participation of its delegation and of any person included in its delegation as an adviser.
- 10.2 The Party hosting a meeting of the Council shall be responsible for all costs incurred in making a venue available for the meeting, the preparation and distribution of the agenda for the meeting, as well as for the recording and distribution of the minutes of the meeting.

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RK
M. M. L. K. A

10.3 All other costs incurred or liabilities accepted by the Council in the performance of its functions and the exercise of its powers, shall be shared equally by the Parties, unless otherwise agreed by the Council.

ARTICLE 11

GENERAL AND FINAL PROVISIONS

11.1 This Agreement shall enter into force on the date on which all Parties have notified each other through the diplomatic channel of their compliance with the constitutional requirements necessary for the implementation thereof.

11.2 This Agreement may be amended by mutual consent of the Parties through an Exchange of Notes between the Parties through the diplomatic channel.

IN WITNESS WHEREOF the undersigned, being duly authorized by their respective Governments have signed and sealed this Agreement in quadruplicate in the English language, all texts being equally authentic.

DONE at Windhoek on this 3rd day of November 2000.

Ronald Kasrils

FOR THE REPUBLIC OF SOUTH AFRICA

Lea Kgatla

FOR THE REPUBLIC OF BOTSWANA

Molotsi

FOR THE KINGDOM OF LESOTHO

Puise

FOR THE REPUBLIC OF NAMIBIA