

Reporting on the global SDG indicator 6.5.2

TEMPLATE

Country name: the Republic of Kenya

Section I. Calculation of SDG indicator 6.5.2

a. Methodology

This section allows for the calculation of the Sustainable Development Goal global indicator 6.5.2, which is defined as *the proportion of transboundary basins' area with an operational arrangement for water cooperation*. The information gathered in Section II, will help in completing this section. The Step-by-step monitoring methodology for SDG indicator 6.5.2¹, developed by UNECE and UNESCO in the framework of UN Water, can be referred to for details on the necessary data, the definitions and the calculation.

The value of the indicator at the national level is derived by **adding up the surface area in a country of those transboundary surface water catchments and transboundary aquifers (i.e. 'transboundary' basins) that are covered by an operational arrangement and dividing the obtained area by the aggregate total area in a country of all transboundary basins (both catchments and aquifers)**.

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.

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.

For an arrangement to be considered **"operational"** all the following criteria needs to be fulfilled:

- There is a joint body, joint mechanism or commission (e.g. a river basin organization) for transboundary cooperation,
- There are regular (at least once per year) formal communications between riparian countries in form of meetings (either at the political or technical level);
- There is a joint or coordinated water management plan(s), or joint objectives have been set, and
- There is a regular (at least once per year) exchange of data and information.

b. Calculation of indicator 6.5.2

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:

- the country/ies with which the basin is shared;
- the surface area of these basins (the catchment of rivers or lakes and the aquifer in the case of groundwater) within the territory of your country (in km²);
- the surface area of these basins within the territory of your country which is covered by a cooperation arrangement that is operational according to the above criteria (please consider the replies to the questions in Section II, in particular questions 1, 2, 3, 4 and 6).

¹ Available at <http://www.unwater.org/publications/publications-detail/en/c/428764/>.

In case an operational arrangement is in place only for a sub-basin or 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.

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

Name of the Transboundary basin / sub-basin	Countries shared with	Surface area of the basin / sub-basin (in km ²) within the territory of the country	Surface area of the basin / sub-basin (in km ²) covered by an operational arrangement within the territory of the country
Lake Victoria Basin	Burundi, Kenya, Rwanda, Uganda and Tanzania	49, 400	49, 400
Sio Malaba Malakisi River Basin	Kenya and Uganda	3, 600	3, 600
Total surface area of transboundary basins / sub-basins of rivers and lakes covered by operational arrangements within the territory of the country (in km²) [A] <i>(do not double count sub-basins)</i>			53, 000
Total surface area of Transboundary basins/sub-basins of rivers and lakes NOT covered by operational arrangements within the territory of the country (in km²) (Lake Turkana, Lakes Chala & Jipe and Uмба River Basins and Daula River Basins)			94, 600
Total surface area of Transboundary basins of rivers and lakes within the territory of the country (in km²) -[B] <i>(do not double count sub-basins)</i>		147, 600	

Transboundary aquifers [please add rows as needed]

Name of the transboundary aquifer	Countries shared with	Surface area (in km ²) ² within the territory of the country	Surface area (in km ²) covered by an operational arrangement within the territory of the country
Merti	Kenya, Somalia	12, 100	0

² 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

Mount Elgon	Kenya, Uganda	1, 250	0
Dawa (Daua)	Kenya, Ethiopia, Somalia	4, 900	0
Kilimanjaro	Kenya, Tanzania	5, 550	0
Coastal Sedimentary Basin	Kenya, Tanzania	12, 000	0
Rift	Kenya, Tanzania	13, 000	0
Sudd Basin	Kenya, Ethiopia, South Sudan	1, 700	0
Total surface area of transboundary aquifers covered by operational arrangements within the territory of the country (in km²) [C]			0
Total surface area of transboundary aquifers within the territory of the country (in km²) [D]		50,500	

Notes: The areas for aquifers are generated from shape files from tba_map 2015 provided by UNESCO. Further, the above map did not include shape files for Kiunga aquifer shared between Kenya and Somalia and the aquifer basin around Lake Victoria.

Indicator value for the country

$((A + C) / (B + D)) \times 100\%$ and is:

$(53,000/198,100) \times 100\%$

This is 26%

Additional information

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

The Nile Basin Cooperative Framework Agreement (CFA) is not in operation but the Lake Victoria Basin Commission Protocol covers the same basin the CFA was crafted to encompass, save for Sio Malaba Malakisi (SMM) basin which is covered under Nile Equatorial Lakes Subsidiary Action Programme (NELSAP), and which also is covered by the East Africa Community Treaty.

Spatial information

If a map (or maps) of the transboundary surface water catchments and transboundary aquifers (i.e. Transboundary basins') is available, please attach them. Ideally, shapefiles of the basin and aquifer delineations that can be viewed in Geographical Information Systems should be sent.

- The country has shapefiles for the 5 catchment basins but no shapefiles specific to Transboundary basins as yet.

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.

Section II. Information on each transboundary basin or group of basins

Please complete this second section for each transboundary basin (river, lake or aquifer) or for group of basins covered by the same agreement or arrangement and where conditions are similar. It might also be convenient to group basins or sub-basins for which your country's share is very small.³ In some instances, you may provide information on both a basin and one or more of its sub-basins, for example, where you have agreements⁴ on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares the basin or aquifer or even prepare a joint report for shared basins. General information on transboundary water management at the national level should be provided in Section III and not repeated here.

Please reproduce the whole Section II with its questions for each transboundary basin, river, lake or aquifer, or group of basins for which you will provide a reply.

Name of the transboundary basin, river, lake or aquifer, or group thereof, list of the riparian States, and country's share of the basin: [Lake Victoria]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin?

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 or agreements or arrangements:

- The Treaty for the Establishment of the East African Community (1999) and Protocol on Sustainable Development of Lake Victoria Basin (2003)

Agreement or arrangement is under development

No agreement

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 for the transboundary basin, river, lake or aquifer then jump to question 4; if there is no agreement, but a joint body 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 (river, lake or aquifer) or group of basins or sub-basins

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

Yes

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

Yes

³ 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.

⁴ 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 not, what does it cover? [fill in]

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

Yes /No

Which States (including your own) are bound by the agreement or arrangement? (*Please list*):

- Burundi, Rwanda, Kenya, Uganda, United Republic of Tanzania

(b) Are aquifers (or groundwater bodies) covered by the agreement/arrangement?

Yes /No

(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

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

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 (*please describe, if applicable*):

- The Protocol is a general framework instrument with anticipation respective states will have to negotiate specifics for the sub-basins

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

- Through the Protocol and LVBC, Kenya and Tanzania have negotiated MOUs for Mara River Basin and Lakes Chala and Jipe; Uмба River Ecosystem as well as LVBC acting as the facilitator in the MOU negotiations

(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*):

- www.eac.int
- www.lvbcom.org

3. Is your country a member of an operational joint body or joint bodies for this agreement/arrangement?

Yes

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

Where there is a joint body (or bodies)

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

Plenipotentiaries

Bilateral commission

Basin or similar commission

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

(b) Does the joint body cover the entire transboundary basin or sub-basin, river, lake or aquifer, or group of basins, and all riparian States?

Yes

(c) Which States (including your own) are member of the joint body?
(*Please list*)

- Burundi, Rwanda, Kenya, Uganda and United Republic of Tanzania

(d) Does the joint body 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): [fill in]

Other features (please list): [fill in]

(e) What are the tasks and activities of this joint body?⁵

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

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

⁵This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

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

(f) What are the main difficulties and challenges that your country faces with the operation of the joint body, 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:
- Interventions require resources partner states do not have
- 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]

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

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

(h) Does the joint body or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet? [At least quarterly]

(i) What are the main achievements with regards to the joint body?

- Several Studies conducted; several programs funded by Development Partners; a number of MOUs developed

(j) Are representatives of international organizations invited to the meetings of the joint body (or bodies) as observers?

Yes /No

(k) Did the joint body ever invite a coastal State to cooperate?

Yes /No

If yes, please give details. If no, why not? [Jurisdiction of the Protocol limited only to Lake Victoria Basin]

4. Is there a joint or coordinated management plan (such as an action plan or a common strategy) or have joint objectives been set specifically on the transboundary waters subject to cooperation?

Yes /No

If yes, please provide further details:

- The Treaty and Protocol enabled Partner States to negotiate joint actions in all spheres of cooperation enumerated in the Treaty and the Protocol

5. How is the transboundary basin, river, lake or aquifer protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Afforestation

Restoration of ecosystems

Environmental flow norms

Groundwater measures (e.g., protection zones)

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

6. (a) Does your country exchange information and data with other riparian States in the basin?

Yes /No

(b) 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.)

Discharges

Water abstractions

Future planned measures with transboundary impacts, such as infrastructure development

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

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

Yes /No

(d) Is the database publicly available?

Yes /No

If yes, please provide the web address: [www.lvbcom.org]

(e) What are the main difficulties and challenges to data exchange, if applicable? *(please describe)*:

- Data availability

(f) What are the main benefits of data exchange on the transboundary waters subject to cooperation? *(please describe)*:

- Confidence building, timely planning and implementation of projects that require data, enhanced cooperation, enhanced data quality since states are encouraged to only share what they believe is credible,

7. Do the riparian States carry out joint monitoring in the transboundary basin, river, lake or aquifer?

Yes /No

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

	Covered?	Hydrological	Ecological	Chemical
Border surface waters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Connected aquifers (or groundwaters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unconnected aquifers (or groundwaters)	<input type="checkbox"/>	<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	<input type="checkbox"/>
Joint and agreed methodologies	<input checked="" type="checkbox"/>
Joint sampling	<input checked="" type="checkbox"/>
Common monitoring network	<input type="checkbox"/>
Common agreed parameters	<input checked="" type="checkbox"/>

(c) Please describe the main achievements regarding joint monitoring, if any:

- Under Lake Victoria Environment Management Programme LVEMP, joint studies were conducted to calculate water Balance including water quality studies

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

- Some countries are uncomfortable with joint monitoring
- delays, disparities in standards e.g in water quality

8. Do the riparian States carry out joint assessment of the transboundary basin, river, lake or aquifer?

Yes /No

If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwater only, pollution sources, etc.) of the assessment:

- Thematic with Mara River environmental flows studies/assessments done recently; it is continuous

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

Yes

If yes, is the basis an international or regional standard (please specify which) or has it been adapted from the national standards of the riparian States? [Regional, usually the AMCOW standards]

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

Notification and communication

Coordinated or joint 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?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (please list): [fill in]

No measures

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

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

Yes /No

If yes, please provide a brief summary:

- The EAC Treaty has this provision

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, river, lake or aquifer?

Yes /No

If yes, how? (please tick all applicable) (Please note: If your country is a Party to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), you may refer to your country's report under that Convention.):

Stakeholders have observer status in a joint body

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

Availability of information to the public

- Consultation on planned measures or river basin management plans⁶
- Public involvement
- Other (*please specify*): [fill in]

Please remember to complete Section II for each of the transboundary basins (rivers, lakes or aquifers). Please also remember to attach copies of agreements, if any.

Name of the transboundary basin, river, lake or aquifer, or group thereof, list of the riparian States, and country's share of the basin: [Sio Malaba Malakisi River Basin]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin?

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 or agreements or arrangements:

- Memorandum of Understanding between the Republic of Kenya, the Republic of Uganda and the Nile Basin Initiative (NBI)/ Nile Equatorial Lakes Subsidiary Action Program (NELSAP) for the Integrated Management and Development of the Transboundary Water Resources of the Sio-Malaba-Malakisi (SMM) River Basin

Agreement or arrangement is under development

No agreement

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

- The countries have not appointed the required committees to operationalise the MOU

If there is no agreement or arrangement and no joint body for the transboundary basin, river, lake or aquifer then jump to question 4; if there is no agreement, but a joint body 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 (river, lake or aquifer) or group of basins or sub-basins

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

Yes /No

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

Yes /No

If not, what does it cover? [fill in]

⁶ Or, where applicable, aquifer management plans.

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

Yes /No

Which States (including your own) are bound by the agreement or arrangement? (*Please list*): [Republic of Kenya, Republic of Uganda]

(b) Are aquifers (or groundwater bodies) covered by the agreement/arrangement?

Yes /No

(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

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

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 (*please describe, if applicable*): [The MOU refers to Nile Basin CFA which is not currently in force]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [Both countries have cooperative bodies to guide in projects identification]

(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*): [to be attached]

3. Is your country a member of an operational joint body or joint bodies for this agreement/arrangement?

Yes /No

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

Where there is a joint body (or bodies)

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

- Plenipotentiaries
- Bilateral commission
- Basin or similar commission

Other (*please describe*): [Subsidiary Action Program]

- (b) Does the joint body cover the entire transboundary basin or sub-basin, river, lake or aquifer, or group of basins, and all riparian States?

Yes /No

- (c) Which States (including your own) are member of the joint body? (*Please list*)

- Burundi, DR Congo, Kenya, Rwanda and South Sudan

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

A secretariat

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

A subsidiary body or bodies

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

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

(e) What are the tasks and activities of this joint body?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

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]

⁷This 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.

(f) What are the main difficulties and challenges that your country faces with the operation of the joint body, 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:

- Lack of legal framework makes it hard to attract funding

Lack of mechanism for implementing measures

Please describe, if true:

SMM basin is under NBI CFA which has not been signed and ratified by sufficient number of countries to enforce it

- Lack of legal framework

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]

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

No cooperation

They have observer status

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

(h) Does the joint body or its subsidiary bodies meet regularly?

Yes

If yes, how frequently does it meet? [As need arises for now but at least once a year.]

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

(j) Are representatives of international organizations invited to the meetings of the joint body (or bodies) as observers?

Yes /No

(k) Did the joint body ever invite a coastal State to cooperate?

Yes /No

If yes, please give details. If no, why not? [fill in]

4. Is there a joint or coordinated management plan (such as an action plan or a common strategy) or have joint objectives been set specifically on the transboundary waters subject to cooperation?

Yes

If yes, please provide further details: [Within the Framework of Sio Malaba Malakisi project which coordinates joint meetings, the MOU has elaborated the objectives of the joint actions.]

5. How is the transboundary basin, river, lake or aquifer protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Afforestation

Restoration of ecosystems

Environmental flow norms

Groundwater measures (e.g., protection zones)

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

6. (a) Does your country exchange information and data with other riparian States in the basin?

Yes /No

- (b) 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.)

Discharges

Water abstractions

Future planned measures with transboundary impacts, such as infrastructure development

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

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

Yes /No

- (d) Is the database publicly available?

Yes /No

If yes, please provide the web address: [www.nelsap.nilebasin.org]

- (e) What are the main difficulties and challenges to data exchange, if applicable? (*please describe*): [data availability]

- (f) What are the main benefits of data exchange on the transboundary waters subject to cooperation? (*please describe*):

- Trust building

7. Do the riparian States carry out joint monitoring in the transboundary basin, river, lake or aquifer?

Yes

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

	Covered?	Hydrological	Ecological	Chemical
Border surface waters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Connected aquifers (or groundwaters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unconnected aquifers (or groundwaters)	<input type="checkbox"/>	<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	<input type="checkbox"/>
Joint and agreed methodologies	<input checked="" type="checkbox"/>
Joint sampling	<input checked="" type="checkbox"/>
Common monitoring network	<input type="checkbox"/>
Common agreed parameters	<input checked="" type="checkbox"/>

(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, river, lake or aquifer?

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: [fill in]

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

Yes

If yes, is the basis an international or regional standard (please specify which) or has it been adapted from the national standards of the riparian States? [AMCOW]

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 alarm system for accidental water pollution	<input type="checkbox"/>
Other (please list): [fill in]	
No measures	<input type="checkbox"/>

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

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

Notification and communication	<input checked="" type="checkbox"/>
--------------------------------	-------------------------------------

- 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?

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, river, lake or aquifer?

Yes

If yes, how? (please tick all applicable) (Please note: If your country is a Party to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), you may refer to your country's report under that Convention.):

Stakeholders have observer status in a joint body

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

Availability of information to the public

Consultation on planned measures or river basin management plans⁸

Public involvement

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

Please remember to complete Section II for each of the transboundary basins (rivers, lakes or aquifers). Please also remember to attach copies of agreements, if any.

Name of the transboundary basin, river, lake or aquifer, or group thereof, list of the riparian States, and country's share of the basin: [Transboundary Mara River]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin?

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

⁸ Or, where applicable, aquifer management plans.

Please insert the name of the agreement or agreements or arrangements:

- Memorandum of Understanding between the Government of the Republic of Kenya and the Government of the United Republic of Tanzania for the joint water resources management of the transboundary Mara river basin

Agreement or arrangement is under development

No agreement

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:

- Riparian Countries have not appointed the requisite committees

If there is no agreement or arrangement and no joint body for the transboundary basin, river, lake or aquifer then jump to question 4; if there is no agreement, but a joint body 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 (river, lake or aquifer) or group of basins or sub-basins

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

Yes ✓

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

Yes ✓

If not, what does it cover? [fill in]

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

Yes ✓

Which States are bound by the agreement or arrangement? (Please list):

- Republic of Kenya and United Republic of Tanzania

(b) Are aquifers (or groundwater bodies) covered by the agreement/arrangement?

No

- (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

- 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
- 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 (*please describe, if applicable*):

- The agreement scope is limited to water and not the other water related sectors
- Whereas the MOU was signed over 2 years ago, the countries are yet to appoint the requisite committees to start implementation of the provisions therein.

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

- The riparian states have a forum to address mutual concerns on water resources

(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*):

- document attached

3. Is your country a member of an operational joint body or joint bodies for this agreement/arrangement?

Yes√

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

Where there is a joint body (or bodies)

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

Plenipotentiaries

Bilateral commission

Basin or similar commission

Other (*please describe*):

- Joint Steering, Technical and Implementing Committees (It is only provided in the MOU but these are not yet appointed)

(b) Does the joint body cover the entire transboundary basin or sub-basin, river, lake or aquifer, or group of basins, and all riparian States?

Yes √

(c) Which States are member of the joint body? (*Please list*)

- Republic of Kenya and United Republic of Tanzania

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

A secretariat

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

A subsidiary body or bodies

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

Other features (*please list*): [Joint Committees]

(e) What are the tasks and activities of this joint body?⁹

Identification of pollution sources

Data collection and exchange

⁹This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- Joint monitoring
- Maintenance of joint pollution inventories
- Setting emission limits
- Elaboration of joint water quality objectives
- Management and prevention of flood or drought risks
- Preparedness for extreme events, e.g., common early warning and alarm procedures
- 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]

(f) What are the main difficulties and challenges that your country faces with the operation of the joint body, 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:
- Joint Committees not yet formed two years since the MOU was signed
- 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]

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

No cooperation

They have observer status

Other (please describe): [fill in]

(h) Does the joint body or its subsidiary bodies meet regularly?

No

If yes, how frequently does it meet? [fill in]

- What are the main achievements with regards to the joint body?
- It is an avenue for joint deliberations as necessary

(j) Are representatives of international organizations invited to the meetings of the joint body (or bodies) as observers?

- There is yet to be any meeting

(k) Did the joint body ever invite a coastal State to cooperate?

- N/A

If yes, please give details. If no, why not? [fill in]

4. Is there a joint or coordinated management plan (such as an action plan or a common strategy) or have joint objectives been set specifically on the transboundary waters subject to cooperation?

Yes ✓

If yes, please provide further details:

- Under the LVBC Protocol; the Protocol provides for use of IWRM Principles in matters of water management

5. How is the transboundary basin, river, lake or aquifer protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Afforestation

Restoration of ecosystems

Environmental flow norms

Groundwater measures (e.g., protection zones)

Other measures (please list): [fill in]

6. (a) Does your country exchange information and data with other riparian States in the basin?

Yes ✓

(b) 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.)
- Discharges
- Water abstractions
- Future planned measures with transboundary impacts, such as infrastructure development
- Other subjects (*please list*): [fill in]

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

Yes /No

(d) Is the database publicly available?

Yes /No

If yes, please provide the web address: [www.lvbcom.org]

(e) What are the main difficulties and challenges to data exchange, if applicable? (*please describe*):

- Data availability; reliable stations

(f) What are the main benefits of data exchange on the transboundary waters subject to cooperation? (*please describe*):

- Mutual trust building

7. Do the riparian States carry out joint monitoring in the transboundary basin, river, lake or aquifer?

Yes /No

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

	Covered?	Hydrological	Ecological	Chemical
Border surface waters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters in the entire basin	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Connected aquifers (or groundwaters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unconnected aquifers (or groundwaters)	<input type="checkbox"/>	<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
- Joint and agreed methodologies
- Joint sampling

Common monitoring network

Common agreed parameters

(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, river, lake or aquifer?

Yes

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: [fill in]

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

Yes

If yes, is the basis an international or regional standard (please specify which) or has it been adapted from the national standards of the riparian States? [AMCOW]

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

Notification and communication

Coordinated or joint 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?

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

If yes, please provide a brief summary:

- Through the EAC Treaty

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, river, lake or aquifer?

Yes ✓

If yes, how? (please tick all applicable) (Please note: If your country is a Party to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), you may refer to your country's report under that Convention.):

Stakeholders have observer status in a joint body

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

Availability of information to the public ✓

Consultation on planned measures or river basin management plans¹⁰ ✓

Public involvement ✓

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

Please remember to complete Section II for each of the transboundary basins (rivers, lakes or aquifers). Please also remember to attach copies of agreements, if any.

Name of the transboundary basin, river, lake or aquifer, or group thereof, list of the riparian States, and country's share of the basin: [Lakes Challa/Jipe and Uмба River Basin]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin?

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 or agreements or arrangements:

- Memorandum of Understanding between the Government of the Republic of Kenya and the Government of the United Republic of Tanzania for the Joint Transboundary Management of Lakes Chala and Jipe; and Uмба River Ecosystem

Agreement or arrangement is under development

No agreement

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]

¹⁰ Or, where applicable, aquifer management plans.

If there is no agreement or arrangement and no joint body for the transboundary basin, river, lake or aquifer then jump to question 4; if there is no agreement, but a joint body 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 (river, lake or aquifer) or group of basins or sub-basins

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

Yes ✓

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

Yes ✓

If not, what does it cover? [fill in]

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

Yes ✓

Which States are bound by the agreement or arrangement? (*Please list*):

- The Republic of Kenya and the United Republic of Tanzania

(b) Are aquifers (or groundwater bodies) covered by the agreement/arrangement?

Yes /No ✓

- (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 ✓
- Tourism ✓
- Nature protection ✓

Other (*please list*):

- Fisheries, Environment and Forestry

- (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

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*): [Research]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any (*please describe, if applicable*): [No technical committee named by the other riparian country]

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

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

3. Is your country a member of an operational joint body or joint bodies for this agreement/arrangement?

Yes

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

Where there is a joint body (or bodies)

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

Plenipotentiaries

Bilateral commission

Basin or similar commission

Other (*please describe*): [Joint Steering, Technical and Implementing Committees]

(b) Does the joint body cover the entire transboundary basin or sub-basin, river, lake or aquifer, or group of basins, and all riparian States?

Yes

(c) Which States (including your own) are member of the joint body? (*Please list*)

- Republic of Kenya and United Republic of Tanzania

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

A secretariat

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

A subsidiary body or bodies

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

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

(e) What are the tasks and activities of this joint body?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

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

¹¹This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

- Exchange of 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]
- (f) What are the main difficulties and challenges that your country faces with the operation of the joint body, if any?
- Governance issues
Please describe, if any: [fill in]
- Unexpected planning delays
Please describe, if any: [Operationalisation of the Joint committees has not started]
- 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: [Joint meetings have only been held once at the technical level]
- 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]
- (g) If not all riparian States are members of the joint body how does the body cooperate with them?
- No cooperation
- They have observer status
- Other (*please describe*): [fill in]
- (h) Does the joint body or its subsidiary bodies meet regularly?
No
- If yes, how frequently does it meet? [fill in]

(i) What are the main achievements with regards to the joint body? [It is a forum to discuss issues of mutual concern]

(j) Are representatives of international organizations invited to the meetings of the joint body (or bodies) as observers?

Yes ✓

(k) Did the joint body ever invite a coastal State to cooperate?

N/A

If yes, please give details. If no, why not? [fill in]

4. Is there a joint or coordinated management plan (such as an action plan or a common strategy) or have joint objectives been set specifically on the transboundary waters subject to cooperation?

Yes ✓

If yes, please provide further details: [The MOU elaborates the joint objective]

5. How is the transboundary basin, river, lake or aquifer protected, including the protection of ecosystems, in the context of sustainable and rational water use?

Afforestation

Restoration of ecosystems

Environmental flow norms

Groundwater measures (e.g., protection zones)

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

6. (a) Does your country exchange information and data with other riparian States in the basin?

Yes ✓

(b) 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.)

Discharges

Water abstractions

Future planned measures with transboundary impacts, such as infrastructure development

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

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

No

(d) Is the database publicly available?

No

If yes, please provide the web address: [www.lvbc.org]

(e) What are the main difficulties and challenges to data exchange, if applicable? (please describe): [fill in]

(f) What are the main benefits of data exchange on the transboundary waters subject to cooperation? (please describe): [For joint planning]

7. Do the riparian States carry out joint monitoring in the transboundary basin, river, lake or aquifer?

No

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

	Covered?	Hydrological	Ecological	Chemical
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Connected aquifers (or groundwaters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unconnected aquifers (or groundwaters)	<input type="checkbox"/>	<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	<input type="checkbox"/>
Joint and agreed methodologies	<input type="checkbox"/>
Joint sampling	<input type="checkbox"/>
Common monitoring network	<input type="checkbox"/>
Common agreed parameters	<input type="checkbox"/>

(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, river, lake or aquifer?

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: [fill in]

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

Yes

If yes, is the basis an international or regional standard (please specify which) or has it been adapted from the national standards of the riparian States? [AMCOW]

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

Notification and communication

Coordinated or joint 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?

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

If yes, please provide a brief summary: [Through the EAC and the LVBC Protocol]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, river, lake or aquifer?

Yes /No

If yes, how? (please tick all applicable) (Please note: If your country is a Party to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), you may refer to your country's report under that Convention.):

Stakeholders have observer status in a joint body

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

Availability of information to the public

Consultation on planned measures or river basin management plans¹²

Public involvement

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

Please remember to complete Section II for each of the transboundary basins (rivers, lakes or aquifers). Please also remember to attach copies of agreements, if any.

¹² Or, where applicable, aquifer management plans.

Name of the transboundary basin, river, lake or aquifer, or group thereof, list of the riparian States, and country's share of the basin: [The Nile Basin]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin?

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 riparian

Please insert the name of the agreement or agreements or arrangements:
[Newly developed Nile Cooperative Framework Agreement CFA]

Agreement or arrangement is under development

No agreement

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

- The Nile CFA developed and opened for signature in 2010 has not been signed by all the riparian States owing to contentious Article 14(b). Six countries have so far signed the CFA with only three proceeding to ratification.
- There are ongoing consultations to reach a settlement on this article

If there is no agreement or arrangement and no joint body for the transboundary basin, river, lake or aquifer then jump to question 4; if there is no agreement, but a joint body 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 (river, lake or aquifer) or group of basins or sub-basins

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

Yes

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

Yes

If not, what does it cover? [fill in]

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

Yes /No

Which States (including your own) are bound by the agreement or arrangement? *(Please list)*:

- Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda

(b) Are aquifers (or groundwater bodies) covered by the agreement/arrangement?

No

- (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)
- √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
- 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 (*please describe, if applicable*):

- The CFA is not yet in force. It therefore remains an impediment to Kenya realising the benefits of cooperation

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

- The CFA was successfully negotiated and the interim NBI has made the region undertake studies to understand the development potential

(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.nilebasin.org>

3. Is your country a member of an operational joint body or joint bodies for this agreement/arrangement?

Yes ✓

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

Where there is a joint body (or bodies)

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

Plenipotentiaries

Bilateral commission

Basin or similar commission

Other (*Secretariat*): [Transition Body - the Nile Basin Initiative]

(b) Does the joint body cover the entire transboundary basin or sub-basin, river, lake or aquifer, or group of basins, and all riparian States?

Yes ✓

(c) Which States (including your own) are member of the joint body? (*Please list*)

- Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania

(d) Does the joint body 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):

- Fully fledged Programme

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

(e) What are the tasks and activities of this joint body?¹³

¹³This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks

Identification of pollution sources	<input type="checkbox"/>
Data collection and exchange	<input checked="" type="checkbox"/>
Joint monitoring	<input checked="" type="checkbox"/>
Maintenance of joint pollution inventories	<input type="checkbox"/>
Setting emission limits	<input type="checkbox"/>
Elaboration of joint water quality objectives	<input 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 type="checkbox"/>
Water allocation and/or flow regulation	<input type="checkbox"/>
Policy development	<input checked="" type="checkbox"/>
Control of implementation	<input type="checkbox"/>
Exchange of experience between riparian States	<input checked="" type="checkbox"/>
Exchange of information on existing and planned uses of water and related installations	<input 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 type="checkbox"/>
Climate change adaptation	<input checked="" type="checkbox"/>
Joint communication strategy	<input type="checkbox"/>
Basin-wide or joint public participation and consultation of, for example, basin management plans	<input checked="" type="checkbox"/>
Joint resources to support transboundary cooperation	<input checked="" type="checkbox"/>
Capacity-building	<input checked="" type="checkbox"/>

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

(f) What are the main difficulties and challenges that your country faces with the operation of the joint body, 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:

- No Legal Framework no funding

which joint bodies coordinate and tasks which they implement should be included.

- Lack of mechanism for implementing measures
- Please describe, if true:*
- CFA not operational in the absence of joint Commission
- 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]
- (g) If not all riparian States are members of the joint body how does the body cooperate with them?
- No cooperation
- They have observer status
- Other (*please describe*): [fill in]
- (h) Does the joint body or its subsidiary bodies meet regularly?
- Yes
- If yes, how frequently does it meet?
- At least quarterly
- (i) What are the main achievements with regards to the joint body?
- Sustained negotiations and collaboration
- (j) Are representatives of international organizations invited to the meetings of the joint body (or bodies) as observers?
- Yes
- (k) Did the joint body ever invite a coastal State to cooperate?
- Yes
- If yes, please give details. If no, why not?*
- The Coastal State participated in negotiations but is yet to sign the CFA
4. Is there a joint or coordinated management plan (such as an action plan or a common strategy) or have joint objectives been set specifically on the transboundary waters subject to cooperation?
- Yes
- If yes, please provide further details:*
- There are several documents prepared but waiting for a legal framework to actualise
5. How is the transboundary basin, river, lake or aquifer protected, including the protection of ecosystems, in the context of sustainable and rational water use?
- Afforestation
- Restoration of ecosystems
- Environmental flow norms

Groundwater measures (e.g., protection zones)

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

6. (a) Does your country exchange information and data with other riparian States in the basin?

Yes /No

- (b) 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.)

Discharges

Water abstractions

Future planned measures with transboundary impacts, such as infrastructure development

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

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

Yes

- (d) Is the database publicly available?

Yes

If yes, please provide the web address: [www.nilebasin.org]

- (e) What are the main difficulties and challenges to data exchange, if applicable? (*please describe*):

- Data availability; often countries do not have sufficient monitoring stations

- (f) What are the main benefits of data exchange on the transboundary waters subject to cooperation? (*please describe*):

- Confidence building for engagement over water resources management

7. Do the riparian States carry out joint monitoring in the transboundary basin, river, lake or aquifer?

No

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

	Covered?	Hydrological	Ecological	Chemical
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|--------------------------|
| Connected aquifers (or groundwaters) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Unconnected aquifers (or groundwaters) | <input type="checkbox"/> | <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 | <input type="checkbox"/> |
| Joint and agreed methodologies | <input type="checkbox"/> |
| Joint sampling | <input type="checkbox"/> |
| Common monitoring network | <input type="checkbox"/> |
| Common agreed parameters | <input type="checkbox"/> |

(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, river, lake or aquifer?

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: [fill in]

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

Yes /No

If yes, is the basis an international or regional standard (please specify which) or has it been adapted from the national standards of the riparian States? [fill in]

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

- | | |
|--|--------------------------|
| Notification and communication | <input type="checkbox"/> |
| Coordinated or joint alarm system for accidental water pollution | <input type="checkbox"/> |
| Other (please list): [fill in] | |
| No measures | <input type="checkbox"/> |

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

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

- | | |
|--|--------------------------|
| Notification and communication | <input type="checkbox"/> |
| Coordinated or joint alarm system for floods | <input type="checkbox"/> |
| Coordinated or joint alarm system for droughts | <input type="checkbox"/> |
| Joint climate change adaptation strategy | <input type="checkbox"/> |
| Joint disaster risk reduction strategy | <input type="checkbox"/> |
| Other (please list): [fill in] | |

No measures

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, river, lake or aquifer?

Yes /No

If yes, how? (please tick all applicable) (Please note: If your country is a Party to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention), you may refer to your country's report under that Convention.):

Stakeholders have observer status in a joint body

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

Availability of information to the public

Consultation on planned measures or river basin management plans¹⁴

Public involvement

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

Please remember to complete Section II for each of the transboundary basins (rivers, lakes or aquifers). Please also remember to attach copies of agreements, if any.

¹⁴ Or, where applicable, aquifer management plans.

III. General information on transboundary water management at the national level

In this section, you are requested to provide general information on transboundary water management at the national level. Information on specific transboundary basins (rivers, lakes or aquifers) and agreements should be presented in Section II and not repeated here.

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

Yes ✓

If yes, list the main national legislation:

- The Constitution of Kenya 2010 articles 5 and 6 regards General Rules of International Law and 6 says ratified conventions are part of Kenya Law which then accept general principles of International Law
- Water Act 2016 Articles 20 on water quality objectives and 22 on conservation of vulnerable resource

- (b) Do your country's national policies, action plans and strategies refer to measures to prevent, control and reduce any transboundary impact?

Yes ✓

If yes, list the main national policies, action plans and strategies:

- Water Act 2016 and the plans and actions being formulated will echo the Law
- The Draft Transboundary Water Resources Policy and the Legal framework being developed provides for such measures.

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

Precautionary principle Yes ✓

Polluter pays principle Yes ✓

Sustainable development Yes ✓

- (d) 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 ✓

If yes, for which sectors? (please list):

- Water Resources Authority WRA manages the wastewater discharge system and issues licenses to industries, institutions and utility companies for discharge of treated wastes to receiving water bodies;
- National Environment Management Authority NEMA is a custodian of Law regulating environmental pollution.

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

If your country has a licensing system, does the system provide for setting emission limits based on best available technology?

Yes ✓

- (e) Are the authorized discharges monitored and controlled?

Yes ✓

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]

(f) 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
- 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]

(g) What are the main measures which your country takes to enhance water efficiency?

Please tick as appropriate (not all might be relevant)

- | | |
|---|-------------------------------------|
| A regulatory system regarding water abstraction | <input checked="" type="checkbox"/> |
| Monitoring and control of abstractions | <input checked="" type="checkbox"/> |
| Water rights are clearly defined | <input checked="" type="checkbox"/> |
| Water allocation priorities are listed | <input checked="" type="checkbox"/> |
| Water-saving technologies | <input checked="" type="checkbox"/> |
| Advanced irrigation techniques | <input checked="" type="checkbox"/> |
| Demand management activities | <input checked="" type="checkbox"/> |
| Other means (please list) | <input type="checkbox"/> |

(h) Does your country apply the ecosystems?

Yes ✓

If yes, please describe how: [One basin is experimenting on PES]

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

Yes ✓

If yes, please list the most important measures: [Legislation in Water Act 2016 Fourth Schedule]

2. Does your country require transboundary environmental impact assessment (EIA)?

Yes ✓

Does your country have procedures for transboundary EIA?

No

If yes, please make reference to the legislative basis (please insert the name and section of the relevant laws): [fill in]

3. Does your country have transboundary agreements or arrangements for the protection and/or management of transboundary waters (i.e., surface waters or aquifers), whether bilateral, multilateral and/or at the basin level?

Yes ✓

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

- Lake Victoria Basin Protocol for sustainable development of basin resources to cover the 5 Partner States of the EAC: Burundi, Kenya, Rwanda, Tanzania and Uganda.
- Bilateral arrangements to cover sub-catchments between counties such as Kenya and Uganda; Kenya and Tanzania among others

Section IV. Final questions

1. What are the main challenges your country faces in cooperating on transboundary waters? (*Please describe*):

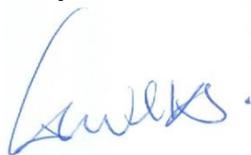
- Securing binding agreements as opposed to non-binding MOUs; negotiations often are hard to begin for systems such as Lake Turkana, Dawa

(Daua) River and the MOUs for Lakes Chala Jipe and Uмба River and even for Mara River are nothing more than gentleman agreements without serious commitments from the countries;

- Delayed implementation of the signed MOUs
2. What have been the main achievements in cooperating on transboundary waters? What were the keys to achieving that success? (*Please describe concrete examples*):
- The Regional Water Resources Policy for the Inter-Governmental Authority for Development (IGAD) Member States; the Regional Protocol to implement the Policy is under negotiation by the seven Member States,
 - Under the auspices of Nile Basin Initiative, we received support for the formulation of our Transboundary Water Policy, support to formulation of sub-basin MoUs, such as under the Sio-Malaba-Malakisi River Basin between Kenya and Uganda; preparation of the various investment water resources projects such as the Maera Multi-purpose and Norera Dam projects; design of the Nile Basin Regional Hydrometeorological network; the Nile Basin Decision support system (NB-DSS) that has been adopted by Partner States for planning and decision making in the water resources management and development in the Nile Basin;
 - Under the Lake Victoria Basin Commission (LVBC), there have been support to bilateral engagements e.g. MoU on Mara River Basin between Kenya and Tanzania; MoU on L. Jipe, L. Challa and Uмба River Basins between Kenya and United Republic of Tanzania
3. Please include any additional information on the process of preparing the report (e.g., whether there was an exchange or consultation within the joint body or with riparian countries), in particular which institutions have been consulted (*please describe*):
- In preparation of this response, IGAD, LVBC and NBI documents were main reference material.
4. If you have any other comments please add them here (*insert comments*): [fill in]
5. Name and contact details of the person(s) who filled out the questionnaire (*please insert*):

Name:

- i. Gladys Wekesa, email: gnwekesa@yahoo.com;



- ii. David K. Bosuben, email: dkbosuben@gmail.com



Date: [15th June 2017]

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