

THE UNITED REPUBLIC OF TANZANIA  
**MINISTRY OF WATER**

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In reply please quote: **CLA.9/186/04/14**

**10<sup>th</sup> August, 2020**

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Director General,  
United Nations Educational, Science and Cultural Organization (UNESCO),  
**Paris, FRANCE.**

**RE: THE UNITED REPUBLIC OF TANZANIA SECOND  
REPORT ON SDG INDICATOR 6.5.2**

Reference is made to your letter dated 19<sup>th</sup> February, 2020 which requested to prepare and submit to you the national report for the second reporting exercise on SDG indicator 6.5.2.

This letter is, therefore, submitting the above mentioned report as you requested.

We thank you for your continued cooperation and support.

Eng. Anthony Sanga  
**PERMANENT SECRETARY**

**THE UNITED REPUBLIC OF TANZANIA**



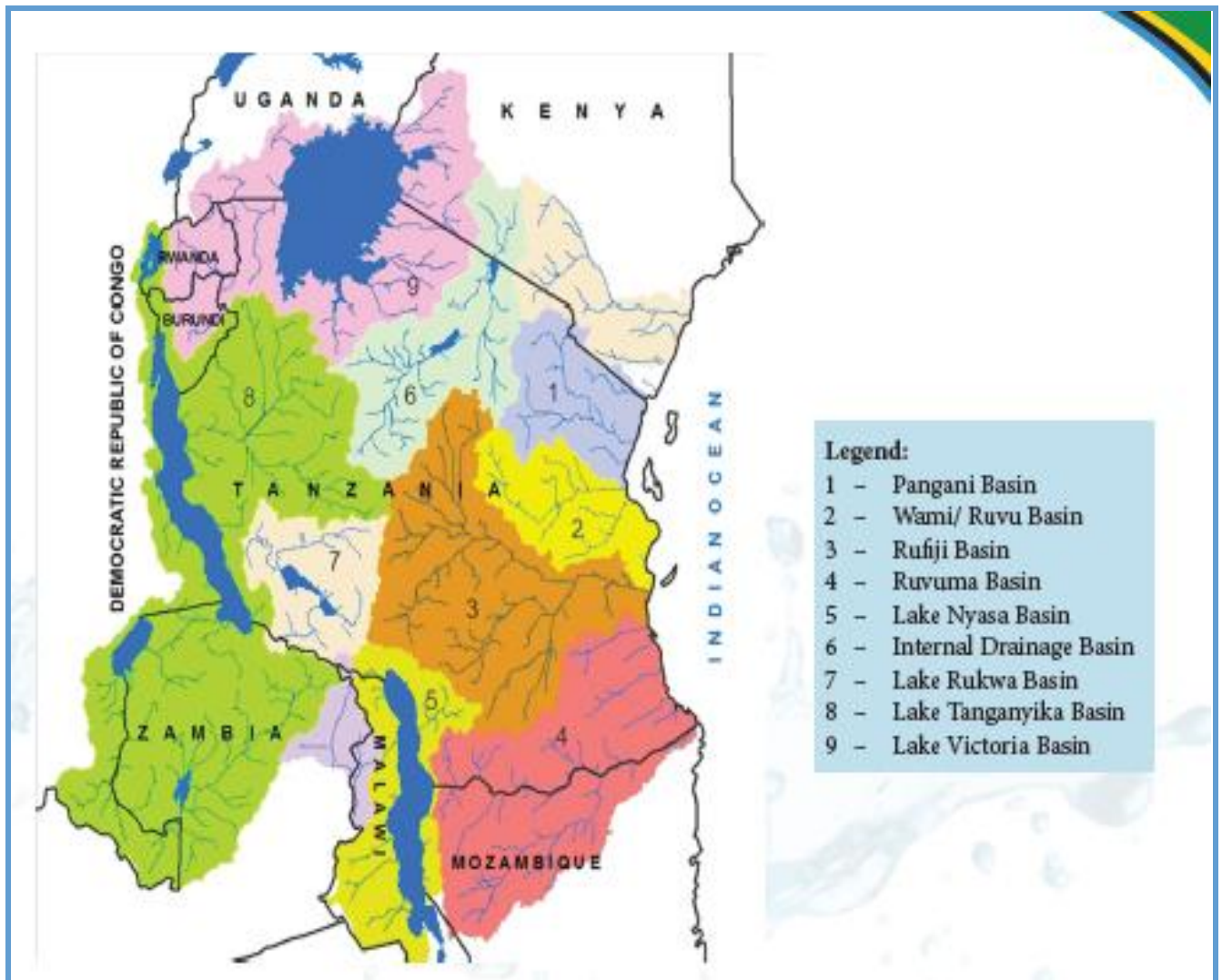
**MINISTRY OF WATER**

**REPORT ON SUSTAINABLE DEVELOPMENT GOAL INDICATOR 6.5.2.  
2018/2019 –2019/2020**

*August, 2020*



## Map of Tanzania showing Transboundary Basins



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## **1.0 INTRODUCTION**

In 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs), including SDG 6 to ensure availability and sustainable management of water and sanitation for all.

To review progress towards the SDGs, United Nations Member States, through the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs), developed in late 2015 and early 2016, a global indicator framework, which was subsequently adopted by the United Nations Statistical Commission in March 2016.

Target 6.5 calls for countries to implement integrated water resources management at all levels, including through transboundary cooperation, as appropriate. To measure progress on transboundary cooperation in accordance to target 6.5, indicator 6.5.2 was adopted. The indicator is defined as the “*percentage of transboundary basin<sup>a</sup> area with an operational arrangement for transboundary cooperation*”.

*The 2018/2019 – 2019/2020 National Transboundary Water Report on SDG Indicator 6.5.2 will contribute on the preparation of the Global Report on transboundary cooperation under Sustainable Development Goal (SDG) 6, target 6.5 in accordance with global indicator 6.5.2. It will also contribute to the UN-Water SDG 6 Integrated Monitoring initiative GEMI.*

### **1.1 Management of Transboundary Waters in Tanzania**

Tanzania has nine major hydrological drainage basins that also profile water governance of the country into the nine Basin Water Boards. Surface water resources in Tanzania include rivers, lakes, springs and dams. Approximately, 7% of the land surface area of the country is covered by three of the country’s major Lakes that are also transboundary in nature i.e. the Lake Victoria, Lake Tanganyika and Lake Nyasa. There are also other inland lakes such as Natron and Duluti. In Tanzania, all lakes and swamps cover 5,439,000 hectares and comprise 5.8 percent of the country’s surface area (SEI, 2007). There are 633 dams in the country (URT, 2009) and the total capacity of large dams is almost 104,200 million m<sup>3</sup>. Major dams in the country include the Mtera, Nyumba ya Mungu, Kihansi and Kidatu dams.

Tanzania is riparian to several trans-boundary water bodies with neighbouring countries. These water bodies include Lakes Victoria, Tanganyika, Nyasa, Natron, Chala and Jipe. Others are Rivers Kagera, Mara, Malagarasi, Momba, Mwiruzi,

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Ruvuma, Songwe and Uмба; Transboundary Aquifers are Kagera (Tanzania/Uganda/Rwanda), Kilimanjaro (Tanzania/Kenya), Coastal Sedimentary Basin (Tanzania and Kenya), Karoo Sandstone (Tanzania/Mozambique), Weathered Basement (Tanzania/Malawi/Zambia), Tanganyika Aquifer (Tanzania/Burundi/DRC/Rwanda); Rift Aquifer (Tanzania/Kenya/Uganda) and Coastal Sedimentary Basin (Tanzania/Mozambique). Sustainable development and management of such transboundary water resources require cooperation, understanding and agreement among the riparian states. Such cooperation could be in the form of information and data sharing, joint coordination and collaboration in planning as well as joint soliciting of funds for targeted interventions in riparian areas.

Considering that Tanzania is riparian to 14 water bodies, including six lakes and eight rivers as mentioned above, the management of these transboundary resources is done through cooperative frameworks (Agreements, Conventions, Protocols and Memoranda). Some of those cooperative legal frameworks that Tanzania is a party to are listed below:

## **1.2 Existing Agreements, Conventions and Protocols**

- i) Convention between the Government of the United Republic of Tanzania and the Government of the Republic of Malawi on the Establishment of a Joint Songwe River Basin Commission, 2017;
- ii) The Nile Cooperative Framework Agreement, 2010;
- iii) Agreement between the Republic of Tanzania and the Republic of Mozambique on (the Establishment of a Joint Water Commission (JWC), 2006;
- iv) Agreement for the Establishment of Zambezi Watercourse Commission (ZAMCOM), 2004;
- v) The Convention on the Sustainable Management of Lake Tanganyika, 2003;
- vi) Protocol for the Sustainable Development of Lake Victoria Basin, 2003;
- vii) Revised Protocol on Shared Watercourse Systems, 2000;



- viii) General Co-operation Agreement between Tanzania and Malawi 1991.

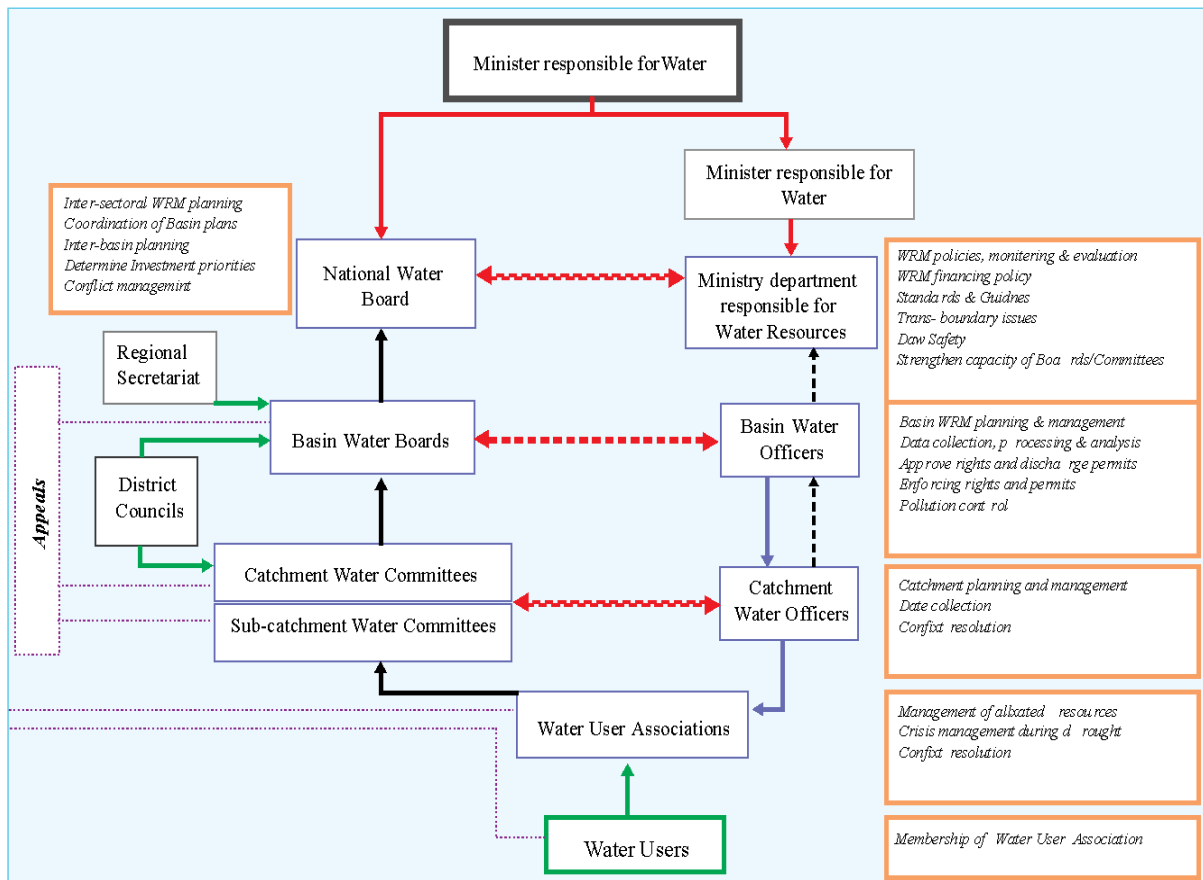
## **1.2 Existing Memoranda of Understanding**

- i) Memorandum of Understanding between Tanzania and Malawi for the Implementation of Phase III of Songwe River Basin Development Programme (SRBDP), 2017;
- ii) Memorandum of Understanding between Tanzania and Kenya for the Management of Transboundary Water Resources of Mara River Basin, 2015;
- iii) Memorandum of Understanding between Tanzania and Democratic Republic of Congo (DRC) for the construction of Lukuga Barrage, 2015;
- iv) Memorandum of Understanding between Tanzania and Kenya for the Management of Lake Chala- Jipe and River Uмба Ecosystem, 2013; and
- v) Memorandum of Understanding on Kagera River Basin Transboundary Integrated Water Resources Management and Development between Tanzania, Burundi, Rwanda Uganda and Nile Equatorial Lakes Subsidiary Action Plan – Coordination Unit - NELSAP- CU.

Coordination of transboundary waters' activities in Tanzania is vested under Transboundary Section under the Water Resources Division - Ministry of Water. Since enactment of Water Resources Management Act No. 11 of 2009, which also established a new management structure for water resources in Tanzania, the Transboundary Section has been actively coordinating all issues of transboundary water cooperation to ensure participation of Tanzania and the Ministry of Water in particular at relevant regional and international fora. The Transboundary Section specifically has the following activities to perform:

- i. Coordinate Ministry's participation in National and International dialogues, initiatives and projects pertaining to the management, development and use of the transboundary water resources;
- ii. Coordinate preparation and implementation of transboundary water resources development and utilization;

- iii. Coordinate formulation of international agreements and protocols on transboundary shared watercourse systems; and
- iv. Strengthen Basin Water Boards and Ministry's capacity to negotiate for an equitable share of transboundary water resources.



**Figure 1:** Institutional Structure of Water Resources Management in Tanzania

### 1.3 Transboundary Activities Implemented and Success Story

There are numerous transboundary initiatives that have been implemented in Tanzania in the period 2018/2019 – 2019/2020 and tangible benefits have been realized. Some of the transboundary initiatives implemented include Lake Victoria Basin Commission projects; Zambezi Watercourse Commission Projects; the Nile Basin Initiative projects; Songwe River Basin Development Programme; Lake Tanganyika Environmental Management Project; and SADC Water Resources Management Projects. A lot has been achieved and Tanzania benefited as a result of dedicated efforts towards initiating and or nurturing cooperation with other riparian states including:

- i. Establishment and implementation of water and environmental projects;

- ii. Implementation of water resources management and development projects;
- iii. Implementation of capacity building programmes;
- iv. Employment in transboundary organizations;
- v. Financial attraction in different projects and programmes; and
- vi. Peace and harmony with neighbouring countries.

#### **1.4 Challenges of Transboundary Water Management and Cooperation**

Challenges of management of water resources and cooperation in transboundary waters that Tanzania and other riparian states sharing water resources have experienced including:

##### **i) Inadequate Information on Transboundary Aquifers**

While there is groundwater potential to supplement surface water uses in the basins, it is faced with inadequate data on its quality and quantity resulting from limited mapping and assessment of the resources.

##### **ii) Inadequate Capacity of Trans-boundary Institutions**

Effective management of transboundary water resources requires organizations that are equipped with necessary capacity; human and financial resources. Notwithstanding with that, some Transboundary organizations that Tanzania is party to do not meet the limited running costs. Financial constrain is one of the major challenges which in turn influence others (Koepfel, 2008). Availability of financial resources is mainly in the umbrella of projects which are donor funded and time specific. Although the practice has been growing, it might not be sustainable for better management of Transboundary waters and may twist the cooperation. On the other hand, financial resources from country contributions which are not disbursed on time are limited for operational costs. As a result, transboundary water resources are not fully explored, managed and developed.

##### **iii) Un-harmonized Legal Frameworks of Riparian/Members States**

Lack of equivalence in scope and dimensions in National Water Laws among Riparian States hinders implementation of some functions of transboundary organizations. Despite availability of conventions, agreements and protocols among other

instruments of trans-boundary cooperation, the discrepancy in national water laws and policy hinder commonness in planning for a water secure future. Most states have water laws that are yet to be brought into line with more recent trends in the development of international and regional legal frameworks, and the principles that underpin the same (ZAMCOM, 2018). For instance, in the same Transboundary River Basin, there might be Riparian States that have ratified international conventions such as the 1997 United Nations Convention on the Law of Non-Navigational Uses of International Watercourses while others are not.

Therefore, laws and policies of Riparian States need to be aligned with a reasonable degree of compatibility, and importantly, are not at odds with one another, nor with the greater aim of promoting water security. One clear example; is the Environmental Law in different states that defines projects which are subjected to environmental impact assessment. They are not all the same though they use the same watercourse but in different political boundaries. This may not comply with the precautionary principle in the same degree of magnitude across riparian countries. Harmonization of national regulatory frameworks in line with trends in international water law helps to overdue and necessary across transboundary water organizations to ensure policy enforceability. However, it is worth noting that not all laws need to be harmonized, and not all gaps need to be addressed in the same way in each country.

#### **iv) Differences between Riparian States**

Differences in economy and economic priorities, peace and stability, political heritages, priorities, size of a watercourse that lies within a country and its significance, culture and education, religion and relation with external allies may have a stake in making trans-boundary water governance difficult and complex (Ganoulis and Fried, 2001). The situation complicates cooperation and leads to loss of trust among Riparian States and affect discussions towards reaching consensus in making common decisions. For example, the current level of cooperation in the Nile Basin is still fragile; taking into consideration that the regional aspiration is to have a Nile River Basin Agreement that establishes a permanent Nile River Basin Commission acceptable to all the Riparian States but we are yet to reach there after 20 years of cooperation. Similarly, it affects negotiations and originality of ideas and projects and their implementation. The more the diversity sometime leads to higher complexity. Politics and trans-boundary water activities influence and affect each other.

#### **v) Differences in Country Commitment in Meeting Obligations**

Commitments of Riparian States in fulfilling individual obligations differ from country to country and are influenced by interests, benefits and magnitude of a calculated

loss if a country does not collaborate. The condition influences delays in reaching agreements due to prolonged negotiations. As a result, some significant activities and decisions keep pending which affect management of water resources and trans-boundary cooperation.

#### **vi) Competition over Water Allocations**

One of the rationales of transboundary water cooperation is to ensure each Riparian State gets its water share equitably and sustainably. Equitable water allocation, however; is not easy and straight forward. As water demand increases among Riparian countries, so is the complexity in water allocation and its management. In unexpected circumstance, some members with either already a lion share or a desire for more water may initiate complains which are not good signal to cooperation. It is in-line with these circumstances that water use conflicts erupt. In addition, the population growth and changing climate and environmental degradation exacerbate the complexity in water allocation.

#### **vii) Prolonged Discussions that Delay Decisions**

Experience has shown that discussions and negotiations between Riparian States take many years to arrive at assented agreements. In the negative side of it, while riparian states keep on negotiating, some delayed technically; water issues such environment degradation prevails. In addition, significant projects may cease and opportunities disappear as a result of shortcomings of unconcluded agreements. In each single discussion that delays to reach consensus could have significant impact in water resources management and development. This situation is evidenced in the Nile River Basin where by, within 20 years of cooperation among Riparian States, a permanent Water Commission is yet to be established. Also it took 42 years to establish a joint Water Commission between Tanzania and Malawi for the management of Songwe River Basin just to mention a few.

### **1.5 Recommendations**

Development partners (UNESCO, UNECE, etc) are requested to:

- a) Support the United Republic of Tanzania in mapping and assessment of transboundary aquifers in terms of finances and technical capacity;
- b) Support Riparian States to have necessary capacity in terms of human and financial resources for effective management of transboundary water resources;
- c) Support Riparian States to harmonize their legal frameworks for enhanced management of transboundary resources.

## **2.0 DETAILED TANZANIA REPORT ON IMPLEMENTATION OF SDG 6.5.2 INLINE WITH QUESTIONNAIRE PROVIDED BY UNECE/UNESCO**

Tanzania Transboundary Water Report on SDG Indicator 6.5.2 for 2018/2019 – 2019/2020 inline with Questionnaire Provided by UNECE/UNESCO is filled in this chapter as follows:

### **2.1 Reporting on Global SDG Indicator 6.5.2 Template**

### **2.2 Section I: Calculating of Sustainable Development Goal Indicator 6.5.2**

#### **Methodology**

1. Using the information gathered in section II, the information gathered in this section allows for the calculation of Sustainable Development Goal global indicator 6.5.2, which is defined as the proportion of transboundary basin area with an operational arrangement for water cooperation.
2. The step-by-step monitoring methodology for indicator 6.5.2, developed by UNECE and UNESCO in the framework of UN-Water, should be referred to for details on the necessary data, the definitions and the calculation.<sup>b</sup>
3. The value of the indicator at the national level is derived by adding up the surface area in a country of those transboundary basins (river and lake basins and aquifers) that are covered by an operational arrangement and dividing the area obtained by the aggregate total area in a country of all transboundary basins (both river and lake basins, and aquifers).
4. Transboundary basins are basins of transboundary waters, that is, of any surface waters (notably rivers, lakes) or groundwaters which mark, cross or are located on boundaries between by two or more States. For the purpose of the calculation of this indicator, for a transboundary river or lake, the basin area is determined by the extent of its catchment. For groundwater, the area to be considered is the extent of the aquifer.
5. An “arrangement for water cooperation” is a bilateral or multilateral treaty, convention, agreement or other formal arrangement among riparian countries that provides a framework for cooperation on transboundary water management.

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

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. The list of transboundary basins (rivers and lakes and aquifers) in Tanzania territory with the below information have been listed in table 1 and 2 below.

(a) The country/ies with which the basin is shared;

(b) The surface area of the basin (the catchment of rivers or lakes and the aquifer in the case of groundwater) within the territory of your country (in square kilometres (km<sup>2</sup>));

(c) Whether a map and/or a geographical information system (GIS) shapefile of the basin has been provided;

(d) Whether there is an arrangement in force for the basin;

(e) The verification of each of the four criteria to assess operationality;

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

8. In case an operational arrangement is in place only for a sub-basin or a portion of a basin, please list this sub-basin just after the transboundary basin it is part

of. In case there is an operational arrangement for the whole basin, do not list sub-basins in the table below.





**Table 1: Transboundary River and Lake Basins**

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? Basin Basin	Countries shared with	Surface area of the basin/sub-basin (in km <sup>2</sup> ) within the territory of the country (B)	Map and/or GIS shape file provided (yes/no)	Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the basin/ sub-basin (in km <sup>2</sup> ) covered by an operational arrangement within the territory of the country (A)
Nile River	Basin	Tanzania, Burundi, DR Congo, Egypt, Eritrea, Ethiopia, Kenya, Rwanda, Sudan, South Sudan, Uganda	84,920	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	84,920
Lake Victoria	Basin	Tanzania, Burundi, Kenya, Rwanda and Uganda	84,920	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	84,920
Lake Tanganyika	Basin	Tanzania, Burundi, DR Congo and Zambia	150,000	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	150,000
Zambezi River Basin	Basin	Tanzania, Angola, Botswana, Malawi, Mozambique, Namibia, Zambia and Zimbabwe	27,300	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	27,300
Songwe River	Sub Basin	Tanzania and Malawi	2,318	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	2,318
River Momba	Sub Basin	Tanzania and Zambia	9750	Yes	Not covered by arrangement	No	No	No	No	No arrangement

Name of transboundary river or lake basin/sub-basin	It is a basin or a sub-basin? Basin Basin	Countries shared with	Surface area of the basin/sub-basin (in km <sup>2</sup> ) within the territory of the country (B)	Map and/or GIS shape file provided (yes/no)	Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the basin/ sub-basin (in km <sup>2</sup> ) covered by an operational arrangement within the territory of the country (A)
Lake Chala	Sub Basin	Tanzania and Kenya	1.33	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	1.33
Lake Jipe	Sub Basin	Tanzania and Kenya	13.42	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	13.42
Lake Natron	Sub Basin	Tanzania and Kenya	8,658	Yes	No arrangement	No	No	No	No	No arrangement
Umba River	Sub Basin	Tanzania and Kenya	6,424	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	6,424
Ruvuma River Basin	Basin	Tanzania, Malawi and Mozambique	53,337	Yes	Covered by arrangement entirely	Yes	Yes	Yes	Yes	53,337
(A) Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the territory of the country										<b>411,553 km<sup>2</sup></b>
(B) Total surface area of transboundary basins of rivers and lakes within the territory of the country (in km <sup>2</sup> )			<b>427,642 km<sup>2</sup></b>							

**Table 2: Transboundary aquifers**

Name of the transboundary aquifer	Countries shared with	Total Surface area of the aquifer (in km <sup>2</sup> )	Surface area of the aquifer (in km <sup>2</sup> ) within the territory of the country (C)	Map and/ or GIS shape file 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 (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the aquifer (in km <sup>2</sup> ) covered by an operational arrangement within the territory of the country (D)
Kagera	Tanzania, Burundi, Rwanda and Uganda	5,800	5,220	No	No arrangement	Yes (Surface water arrangement is used both for surface and aquifers)	Yes	Yes	Yes	Yes	5,220
Kilimanjaro	Tanzania and Kenya	14,600	5,110	No	No arrangement	No	No	No	No	No	0
Coastal Sedimentary Basin	Tanzania and Kenya	16,800	7,560	No	No arrangement	No	No	No	No	No	0
Karoo Sandstone	Tanzania and Mozambique	40,000	38,000	No	No arrangement	Yes (Surface water arrangement is used both for surface and aquifers)	Yes	No	Yes	No	38,000
Weathered Basement	Tanzania, Malawi and Zambia	25,842	12,921	No	No arrangement	No	No	No	No	No	0
Tanganyika	Tanzania,	222,300	55,575	No	No arrangement	Yes (Surface	Yes	No	Yes	No	55,575

Name of the transboundary aquifer	Countries shared with	Total Surface area of the aquifer (in km <sup>2</sup> )	Surface area of the aquifer (in km <sup>2</sup> ) within the territory of the country (C)	Map and/ or GIS shape file 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 (entirely, partly, no) (Ref. to questions in sect. II)	Criterion 1 applied (yes/no) (Ref. to questions in sect. II)	Criterion 2 applied (yes/no) (Ref. to questions in sect. II)	Criterion 3 applied (yes/no) (Ref. to questions in sect. II)	Criterion 4 applied (yes/no) (Ref. to questions in sect. II)	Surface area of the aquifer (in km <sup>2</sup> ) covered by an operational arrangement within the territory of the country (D)
	Burundi, DRC and Rwanda	km <sup>2</sup>				water arrangement is used both for surface and aquifers)					
Rift	Tanzania and Kenya	21,150 km <sup>2</sup>	6,980	No	No arrangement	Yes	Yes	No	Yes	No	6,980
Coastal Sedimentary Basin	Tanzania and Mozambique	23,000 km <sup>2</sup>	4,600	No	No arrangement	Yes (Surface water arrangement is used both for surface and aquifers)	Yes	No	Yes	No	4,600
<b>(C) Sub-total: surface area of transboundary aquifers covered by operational arrangements (in km<sup>2</sup>)</b>			<b>135,966</b>								
<b>(D) Total surface area of transboundary aquifers (in km<sup>2</sup>)</b>											<b>110,375</b>

Source: Integration of groundwater management into transboundary basin organizations in Africa- Training manual by AGW-Net, IWMI, CapNet, ANBO, IGRAC, 2015



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## 2.2.1 Indicator value for calculation for Tanzania

### Surface waters:

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

$$A = 411,553 \text{ km}^2$$

$$B = 427,642 \text{ km}^2$$

$$A/B \times 100 = 96.2$$

### Aquifers:

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

$$C/D \times 100 =$$

The area of the aquifer within the country was estimated visual from IGRAC transboundary of aquifers of Africa maps actual information are not available as the extent of transboundary aquifer within the Country is not yet mapped.

### Sustainable Development Goal indicator 6.5.2:

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

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

For the case of Tanzania, Sustainable Development Goal indicator 6.5.2 were calculate using only area of surface water covered by operation arrangement;

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

$$A = 411,553 \text{ km}^2$$

$$B = 427,642 \text{ km}^2$$

$$C = 135,966$$

$$D = 110,375$$

$$((411,553 \text{ km}^2 + 110,375)/(427,642 \text{ km}^2 + 135,996)) \times 100 =$$

$$522,038 \text{ km}^2 / 563,608 \text{ km}^2 \times 100 = 92.6\%$$

**Sustainable Development Goal indicator 6.5.2 implementation is 92.6% for the year 2018/2019 –2019/2020**

---

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): [The below list shows a list of bilateral and multilateral agreement, arrangement Tanzania has signed]*

### **Existing Agreements, Conventions and Protocols**

Convention between the Government of the Republic of Malawi and the Government of the United Republic of Tanzania on the Establishment of a Joint Songwe River Basin Commission, 2017;

The Nile Cooperative Framework Agreement, 2010;

- i) Agreement between the Republic of Tanzania and the Republic of Mozambique on (the Establishment of a Joint Water Commission (JWC), 2006;
- ii) Agreement for the Establishment of Zambezi Watercourse Commission (ZAMCOM), 2004;
- iii) The Convention on the Sustainable Management of Lake Tanganyika, 2003;
- iv) Protocol for the Sustainable Development of Lake Victoria Basin, 2003;
- v) Revised Protocol on Shared Watercourse Systems, 2000;
- vi) General Co-operation Agreement between Tanzania and Malawi 1991.

### **Existing Memoranda of Understanding**

- i. Memorandum of Understanding between Tanzania and Malawi for the Implementation of Phase III of Songwe River Basin Development Programme (SRBDP), 2017;
- ii. Memorandum of Understanding between Tanzania and Kenya for the Management of Transboundary Water Resources of Mara River Basin, 2015;
- iii. Memorandum of Understanding between Tanzania and DRC for the Construction of Lukuga Barr age, 2015;
- iv. Memorandum of Understanding between Tanzania and Kenya for the Management of Lake Chala- Jipe and River Uмба Ecosystem, 2013;



- 
- v. Memorandum of Understanding on Kagera River Basin Transboundary Integrated Water Resources Management and Development between Tanzania, Burundi, Rwanda Uganda and Nile Equatorial Lakes Subsidiary Action Plan – Coordination Unit - NELSAP- CU.

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### 3.0 SECTION II REPORT FOR EACH TRANSBOUNDARY BASIN, SUB-BASIN

#### A: NILE RIVER BASIN

#### 3.1 Nile River Basin

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

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

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

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
[Nile River Basin]

List of the riparian States: [Tanzania, Burundi, DR Congo, Ethiopia, Egypt Eritrea, Kenya, Rwanda, Sudan, South Sudan and Uganda]

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

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

Please describe: []

---

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

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

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [10%]**

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)* **Agreement on the Nile River Basin Cooperative Framework, May 2010**

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):* **[Tanzania, Burundi, DR Congo, Ethiopia, Egypt Kenya, Rwanda, Sudan, South Sudan and Uganda]**

- (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: **[Kagera 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*): []

(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 (Yes): [**Inadequate Capacity of Trans-boundary Institutions; Un-harmonized Legal Frameworks of Riparian/Members States; Differences Between Member States; Differences in Country Commitment in Meeting Obligations; Prolonged Discussions that Delay Decisions**]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Implementation of several projects; Separate report on benefits of transboundary cooperation included as annexure**]

(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.nilebasin.org**]

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*): [**Nile Basin Initiative (NBI) is an intergovernmental organization established by the Council of Ministers of Water Affairs of the riparian Countries at its Extra Ordinary meeting of 22<sup>nd</sup> February, 1999 in Dar es Salaam Tanzania. NBI Riparian States are; Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda. Eritrea participated as an observer**]

(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*): [**Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda**]

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

(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):* [fill in]

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

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

---

<sup>3</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be

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

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

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

Governance issues

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

---

included.

---

Unexpected planning delays

Please describe, if any: [**Differences of Riparian states' priorities**]

Lack of resources

Please describe, if true: [**huge investments required for implementation of joint project and 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: [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? [**Developed the water resources of the Nile Basin in sustainable and equitable manner. Ensured mutual cooperation and joint action between the Riparian countries**]

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

Yes /No

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

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 objective of sustainable socio economic development through equitable utilization of, and benefit from, the**



---

**common Nile Basin water resources achieved through implementation of agreed 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*): [**control of water hyacinth**]

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

Yes /No

(b) If yes, how often:

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

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [**Through scheduled technical and policy meetings, programme and project implementations**]

(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 (, ): [**Fisheries**]

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 (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*): [**informed decision on matters related to water resources management**]

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

Yes /No

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

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

transboundary river or lake

---

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

National monitoring stations connected through a network  
or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

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

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

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

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [Joint assessment were done during the preparation of the implementation of hydromet project which started on December, 2019]*

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?* ()

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

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

[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

- 
- Availability of information to the public      ✓
- Consultation on planned measures or river basin  
management plans<sup>4</sup>      ✓
- Public involvement      ✓
- Other (*please specify*): [fill in]

---

<sup>4</sup> Or, where applicable, aquifer management plans.

## B: LAKE VICTORIA BASIN

### 3.2 Lake Victoria Basin

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

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

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

#### Name of the transboundary basin, sub-basin, part of a basin or group of basins: [Lake Victoria Basin]

List of the riparian States: [Tanzania, Burundi, Kenya, Rwanda and Uganda]

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

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

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

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

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Other

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [44%]**

2. 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)* [**Protocol on Sustainable Development of Lake Victoria Basin 2003**]

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)*: **[Tanzania, Burundi, Kenya, Rwanda and Uganda]**

(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: **[Kagera and Kilimanjaro]**

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

All water uses

A single water use or sector

Several water uses or sectors

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

**Water uses or sectors**

Industry

Agriculture

Transport (e.g, navigation)

Households

Energy: hydropower and other energy types

Fisheries

Tourism

Nature protection

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

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

**Procedural and institutional issues**

Dispute and conflict prevention and resolution

Institutional cooperation (joint bodies)



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Consultation on planned measures

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 (*Yes*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Implementation of several projects; Separate report on benefits of transboundary cooperation is attached**]

(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.lakevictoriabasincommission.org](http://www.lakevictoriabasincommission.org)**]

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)*: [**Tanzania, Burundi, Kenya, Rwanda and Uganda**]

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

(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):* [fill in]

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

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

Identification of pollution sources

Data collection and exchange  **The Secretariat collect data from partner states**

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

---

<sup>3</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

---

Consultations on planned measures	√ <input type="checkbox"/>
Exchange of information on best available technology	√ <input type="checkbox"/>
Participation in transboundary EIA	<input type="checkbox"/>
Development of river, lake or aquifer basin management or action plans	√ <input type="checkbox"/>
Management of shared infrastructure	<input type="checkbox"/>
Addressing hydromorphological alterations	√ <input type="checkbox"/>
Climate change adaptation	√ <input type="checkbox"/>
Joint communication strategy	√ <input type="checkbox"/>
Basin-wide or joint public participation and consultation of, for example, basin management plans	√ <input type="checkbox"/>
Joint resources to support transboundary cooperation	√ <input type="checkbox"/>
Capacity-building	√ <input type="checkbox"/>
Any other tasks ( <i>please list</i> ): [fill in]	

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

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 fund to support implementation of joint project and 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:* [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? [**Joint implementation of projects and programmes to ensure partner states with reasonable and equitable utilization of transboundary water resources**]

(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?* [NA]

---

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 joint objective of sustainable management of the Basin is achieved through implementation of agreed 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*): [**control of water hyacinth**]

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  (**we normally exchange information with other riparian countries**)

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [**Through scheduled technical and policy meetings**]

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

Environmental conditions

Research activities and application of best available techniques

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

Future planned measures with transboundary impacts, such as infrastructure development

Other subjects (*Fisheries*): [fill in]

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

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

Yes /No

(f) Is the database publicly available?

Yes /No

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

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

- Frequency of exchanges
- Timing of exchanges
- Comparability of data and information
- Limited spatial coverage
- Inadequate resources (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*): [**informed decision on matters related to water resources management**]

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

Yes /No

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

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

---

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

National monitoring stations connected through a network

---

or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

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

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

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

Yes /No

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

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

Yes /No

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

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

---

Notification and communication

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

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

No measures

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

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

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

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

No measures

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

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

Yes /No

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

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

Yes /No

*If yes, how?*

---

Stakeholders have observer status in a joint body

or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

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

[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin

management plans<sup>4</sup>

Public involvement

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

---

<sup>4</sup> Or, where applicable, aquifer management plans.

## C: LAKE TANGANYIKA BASIN

### 3.3 Lake Tanganyika Basin

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

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

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

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

[Lake Tanganyika Basin

List of the riparian States: [Tanzania, Burundi, DR Congo, and Zambia]

**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: [65% ]**

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

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

---

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

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

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

Please insert the name of the agreement(s) or arrangement(s) [ [The Convention on the Sustainable Management of Lake Tanganyika, 2003](#) ]

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): [\[Tanzania, DR Congo, Burundi and Zambia\]](#)

(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: [**Rift valley**]

(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*): [**Climate change**]

(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 (*Yes*): []

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Through Lake Tanganyika authority, the countries implemented the lake Tanganyika Integrated Regional Development Programme**]

(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.laketanganyikaauthority.org](http://www.laketanganyikaauthority.org)]

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  **it is known as Lake Tanganyika Authority**

Expert group meeting or meeting of national focal points

Other (*please describe*): [**The Lake Tanganyika Authority (LTA) was established by the governments of Burundi, Democratic Republic of Congo, Tanzania, and Zambia. The LTA promotes regional cooperation required for socio-economic development and sustainable management of the natural resources in the Lake Tanganyika basin.**]

**The Lake Tanganyika Authority (LTA) was launched in December 2008 with the mandate to safeguard the lake and its natural resources. The LTA coordinates the implementation of the Convention on the Sustainable Management of Lake Tanganyika]**

(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*): [**Tanzania, Burundi, DR Congo and Zambia**]

(d) Are there any riparian States that are not members of the joint body or mechanism?

(*please list*): [**No**]

(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): [fill in]*

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

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

- |   |                                     |
|---|-------------------------------------|
| Identification of pollution sources   | <input type="checkbox"/>            |
| Data collection and exchange  | <input 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 type="checkbox"/>            |
| Preparedness for extreme events, e.g., common early warning and alarm procedures                  | <input type="checkbox"/>            |
| Surveillance and early warning of water related disease   | <input type="checkbox"/>            |
| Water allocation and/or flow regulation   | <input type="checkbox"/>            |
| Policy development  | <input checked="" type="checkbox"/> |
| Control of implementation   | <input checked="" type="checkbox"/> |
| Exchange of experience between riparian States  | <input checked="" type="checkbox"/> |
| Exchange of information on existing and planned uses of water and related installations           | <input checked="" type="checkbox"/> |
| Settling of differences and conflicts   | <input 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 type="checkbox"/>            |
| Development of river, lake or aquifer basin management or action plans                            | <input checked="" type="checkbox"/> |
| Management of shared infrastructure   | <input type="checkbox"/>            |
| Addressing hydromorphological alterations   | <input type="checkbox"/>            |
| Climate change adaptation   | <input checked="" type="checkbox"/> |
| Joint communication strategy  | <input checked="" type="checkbox"/> |
| Basin-wide or joint public participation and consultation of, for example, basin management plans | <input checked="" type="checkbox"/> |

---

<sup>3</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

---

Joint resources to support transboundary cooperation

Capacity-building

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

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

Governance issues

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

Unexpected planning delays

*Please describe, if any:* [**Differences of Riparian states' priorities**]

Lack of resources

*Please describe, if true:* [**huge investments required**]

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?

**[A convention on sustainable management of Lake Tanganyika has already been established Reconstitution of fisheries stocks in a sustainable manner in the currently overexploited areas; Improving income of target population groups and enhancing food security; A bilateral agreement and an MoU has been established between DRC and Tanzania which spells out the various articles of cooperation]**

---

(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?* [NA]

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:* [Implementation of the Integrated Regional Development Programme which had an objective of reducing poverty in the Lake Tanganyika basin with specific objectives including to; achieve sustainable management of the natural resources of the lake through implementation of activities prioritized in the Strategic Action Plan; and to improve livelihood through physical and social infrastructure development]

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*): [Construction of Lukuga Barrage]

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

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [Through schedule technical and policy meetings, programme and project implementations]

---

(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 (*Fisheries*, ): [fill in]

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

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

Yes /No

(f) Is the database publicly available?

Yes /No

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

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

- Frequency of exchanges
- Timing of exchanges
- Comparability of data and information
- Limited spatial coverage
- Inadequate resources (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*): [**informed decision on matters related to water resources management**]

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

Yes /No

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

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

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

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

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

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

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

Yes /No

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

---

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? (Stakeholders meetings, fora and scientific conferences)*

Stakeholders have observer status in a joint body or mechanism

---

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

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

[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin  
management plans<sup>4</sup>

Public involvement

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

---

<sup>4</sup> Or, where applicable, aquifer management plans.



## ZAMBEZI RIVER BASIN

### 3.4 Zambezi River Basin

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

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

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

#### Name of the transboundary basin, sub-basin, part of a basin or group of basins: [Zambezi River Basin]

List of the riparian States: [Tanzania, Angola, Botswana, Malawi, Mozambique, Namibia, Zambia and 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                   | <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"/>            |  |
| Other   | <input type="checkbox"/>            |  |
| Please describe: [fill in]  |                                     |  |
| Unknown   | <input type="checkbox"/>            |  |

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

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

---

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [2.5%]**

4. 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)* [**Agreement on the Establishment of the Zambezi Watercourse Commission, 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: [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*): [**Tanzania, Angola, Botswana, Malawi, Mozambique, Namibia, Zambia and 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: **[Groundwater assessment is required for identification of specific aquifers in the 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*): []

(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 (*Yes*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Implementation of Zambezi Water Information System – ZAMWIS, Preparation of Environmental outlook, Atlas and also strategic 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*): [**www.zambezi river commission.org**]

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*): [**The Zambezi Watercourse Commission (ZAMCOM) is a major river basin organization in Africa. It was established in 2014 as an inter-governmental organisation that brings together 8 Riparian states that share the Zambezi River Basin, as stipulated in the 2004 ZAMCOM Agreement and in accordance with the revised SADC Protocol on Shared Watercourses of 2000.**]

(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*): [**Tanzania, Angola, Botswana, Malawi, Mozambique, Namibia, Zambia and Zimbabwe**]

(d) Are there any riparian States that are not members of the joint body or mechanism?

(*please list*): [**No**]

(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):* [fill in]

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

---

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

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

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

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

---

<sup>3</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

---

Governance issues

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

Unexpected planning delays

*Please describe, if any:* [**Differences of Riparian states' priorities**]

Lack of resources

*Please describe, if true:* [**Huge investments required for implementation of joint projects and programs**]

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? [**Development of hydro-meteorological database and Decision Support System (ZAMWIS-DSS) which support cooperative management and development of the water resources of the Zambezi watercourse in a sustainable and climate-resilient manner through systematic data and information sharing exchange.**]

(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?* [NA]

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 role of ZAMCOM is to promote and support the sustainable development and efficient management of the Zambezi Watercourse for the equitable benefit of all the inhabitants, in terms of the ZAMCOM Agreement. This includes the promotion of regional integration and co-operation between Member States.**]

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*): []

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

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [**Through scheduled technical and policy meetings**]

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

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as



infrastructure development

√

Other subjects ( ): [fill in]

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

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

Yes √/No

(f) Is the database publicly available?

Yes /No √

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

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

Frequency of exchanges √

Timing of exchanges √

Comparability of data and information √

Limited spatial coverage √

Inadequate resources (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*): **[informed decision on matters related to water resources management, implementation of drought and flood disaster risk reduction management programmes]**

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>Hydrologic</i>	<i>Ecologica</i>	<i>Chemica</i>
	<i>al</i>	<i>l</i>	<i>l</i>
Border surface waters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters in part of the basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

please describe [fill in]

	<i>Hydrologic</i>	<i>Ecologica</i>	<i>Chemica</i>
	<i>al</i>	<i>l</i>	<i>l</i>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one riparian hydraulically connected to a transboundary river or lake	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

National monitoring stations connected through a network  
or common stations

*Please describe:* [fill in]

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

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

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

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

Yes /No

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

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?* ()

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

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

Intergovernmental organizations

Private sectors organizations or associations

- 
- Water user groups or associations
  - Academic or research institutions
  - Other non-governmental organizations
  - General public
  - Other (please specify): [fill in]
  - Availability of information to the public
  - Consultation on planned measures or river basin management plans<sup>4</sup>
  - Public involvement
  - Other (*please specify*): [fill in]

---

<sup>4</sup> Or, where applicable, aquifer management plans.

## SONGWE RIVER BASIN

### 3.5 Songwe River Sub Basin

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

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

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

#### Name of the transboundary basin, sub-basin, part of a basin or group of basins: [Songwe River Sub Basin]

List of the riparian States: [Tanzania and Malawi]

#### 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"/>            |
| Other   | <input type="checkbox"/>            |

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

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

---

Please describe: [fill in]

Unknown

**Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [55%]**

5. 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)* [**Convention between the Government of the Republic of Malawi and the Government of the United Republic of Tanzania on the Establishment of a Joint Songwe River Basin Commission, May 2017**]

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? [**Songwe is the sub basin of Zambezi River Basin**]

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

---

Yes /No

Additional explanations?[]

Which States (including your own) are bound by the agreement or arrangement?

**(Tanzania and Malawi)**

(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: [**Groundwater assessment is required for identification of specific aquifers in the sub 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	<input checked="" type="checkbox"/>
Agriculture	<input checked="" type="checkbox"/>
Transport (e.g., navigation)	<input 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 (*please list*): []

(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

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 (*Yes*): []

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Implementation of Songwe River Basin Development Programme between Tanzania and Malawi**]

(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*): [**The copy of agreement is 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)*: []

(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):* **Tanzania and Malawi**

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

(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] this is for Songwe River Sub Basin*

A subsidiary body or bodies

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

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

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

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

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

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

Exchange of experience between riparian States

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

---

<sup>3</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

---

Settling of differences and conflicts	√ <input type="checkbox"/>
Consultations on planned measures	√ <input type="checkbox"/>
Exchange of information on best available technology	√ <input type="checkbox"/>
Participation in transboundary EIA	<input type="checkbox"/>
Development of river, lake or aquifer basin management or action plans	√ <input type="checkbox"/>
Management of shared infrastructure	√ <input type="checkbox"/>
Addressing hydromorphological alterations	√ <input type="checkbox"/>
Climate change adaptation	√ <input type="checkbox"/>
Joint communication strategy	√ <input type="checkbox"/>
Basin-wide or joint public participation and consultation of, for example, basin management plans	√ <input type="checkbox"/>
Joint resources to support transboundary cooperation	√ <input type="checkbox"/>
Capacity-building	√ <input type="checkbox"/>
Any other tasks ( <i>please list</i> ): [fill in]	

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

Governance issues

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

Unexpected planning delays √

*Please describe, if any:* []

Lack of resources √

*Please describe, if true:* [**Huge investments required for implementation of the joint projects and programs**]

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?

[**Improved bilateral relations and collaboration**]

(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?* [**NA**]

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:* [To promote the coordinated development and management of water, land and related resources within the Songwe River in order to maximise economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystem of the basin.]

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*): [Flood control]

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

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [Through scheduled technical and policy meetings]

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

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

Planned measures taken to prevent, control or reduce

- 
- transboundary impacts
- Point source pollution sources
- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)
- Flows or water levels (including groundwater levels)
- Water abstractions
- Climatological information

Future planned measures with transboundary impacts, such as  
infrastructure development

Other subjects: [[Fisheries](#)]

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 (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*): [**Informed decision on the matters related to the development of sub basin**]

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

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

National monitoring stations connected through a network

or common stations

*Please describe:* [fill in]

Joint and agreed methodologies



---

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

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

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

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

Yes /No

*If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [Joint assessment were done during the Feasibility study for the Songwe River Basin Development Programme]*

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?()*

Stakeholders have observer status in a joint body

or mechanism

Stakeholders have an advisory role in the joint body

---

Stakeholders have a decision-making role in the joint body

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

[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin

management plans<sup>4</sup>

Public involvement

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

---

<sup>4</sup> Or, where applicable, aquifer management plans.

## UMBA RIVER LAKE CHALA AND JIPE SUB BASINS

### 3.6 Umba River Lake Chala and Jipe Sub Basins

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

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

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

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
[Umba River Sub basin, Lake Chala and Jipe Sub basin]

List of the riparian States: [Tanzania and Kenya]

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

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

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

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

---

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: [Umba River Sub basin catchment area is 8,070km<sup>2</sup>; Lake chala catchment areas is 3.15 Km<sup>2</sup> and lake Jipe catchment area is 16.4 Km<sup>2</sup>]**

6. 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) [Memorandum of Understanding between Tanzania and Kenya for the Management of Lake Chala- Jipe and River Umba Ecosystem, 2013]*

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*): **[Tanzania and Kenya]**

(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: **[Groundwater assessment is required for identification of specific aquifers in the sub 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 (*Yes*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Sustainable joint management of Lake Chala-Jipe and River Uмба ecosystem**]



---

(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*):  
**[MoU is 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 are members of the joint body or mechanism? (*Please list*): **[Tanzania and Kenya]**

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

(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 subsidiary body or bodies

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

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

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

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

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

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

Exchange of experience between riparian States

---

<sup>3</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

---

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

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

Governance issues

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

Unexpected planning delays √

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

Lack of resources √

---

*Please describe, if true:* [**The joint programme prepared is not yet implemented due to lack of fund**]

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?

[**Sustainable joint management of Lake Chala-Jipe and River Uмба ecosystem**]

(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?* [**NA**]

---

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:* [**MoU for the Joint Transboundary Management of Lake Chala and Jipe; and Uмба River Ecosystems, February 2013**]

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*): []

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): []

(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 (*Fisheries*, ): [fill in]

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

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

Yes /No

(f) Is the database publicly available?

Yes /No

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

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

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (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*): [ ]

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

---

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

National monitoring stations connected through a network

or common stations

*Please describe*: [fill in]

Joint and agreed methodologies

---

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

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

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

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

Yes /No

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

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

Yes /No

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

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

Notification and communication

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

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

No measures



---

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

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

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

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

No measures

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

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

Yes /No

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

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

Yes /No

*If yes, how? ()*

Stakeholders have observer status in a joint body

or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

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

[fill in]

- 
- |   |                            |
|---|----------------------------|
| Intergovernmental organizations   | √ <input type="checkbox"/> |
| Private sectors organizations or associations                                 | √ <input type="checkbox"/> |
| Water user groups or associations   | √ <input type="checkbox"/> |
| Academic or research institutions   | √ <input type="checkbox"/> |
| Other non-governmental organizations  | √ <input type="checkbox"/> |
| General public  | √ <input type="checkbox"/> |
| Other (please specify): [fill in]   |                            |
| Availability of information to the public                                     | √ <input type="checkbox"/> |
| Consultation on planned measures or river basin management plans <sup>4</sup> | √ <input type="checkbox"/> |
| Public involvement  | √ <input type="checkbox"/> |
| Other ( <i>please specify</i> ): [fill in]                                    |                            |

---

<sup>4</sup> Or, where applicable, aquifer management plans.

## RUVUMA RIVER BASIN

### 3.7 Ruvuma River Basin

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

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

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

**Name of the transboundary basin, sub-basin, part of a basin or group of basins:**  
[Ruvuma River Basin]

List of the riparian States: [Tanzania, Mozambique and Malawi]

**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"/>            |

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

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

---

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: [32%]**

7. 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)* [**Joint Water Commission Agreement, November 2009**]

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? [**It is a bilateral agreement between Tanzania and Mozambique**]

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*): [**Tanzania, Mozambique and Malawi**]

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

Yes /No

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

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

All water uses

A single water use or sector

Several water uses or sectors

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

**Water uses or sectors**

- Industry
- Agriculture
- Transport (e.g., navigation)
- Households
- Energy: hydropower and other energy types
- Fisheries
- Tourism
- Nature protection

Other (*please list*): [**Climate change**]

(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 (*Yes*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [**Implementation of the Ruvuma Shared watercourses Support project**]

---

(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*): [**The agreement is 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*): []

(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*): [**Tanzania and Mozambique**]

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

(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 subsidiary body or bodies

*Please list (e.g., working groups on specific topics):* [**technical working group of Directors from key sectors**]

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

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

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

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

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

Control of implementation

---

<sup>3</sup> This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

---

Exchange of experience between riparian States

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

Settling of differences and conflicts

Consultations on planned measures

Exchange of information on best available technology

Participation in transboundary EIA

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

Management of shared infrastructure

Addressing hydromorphological alterations

Climate change adaptation

Joint communication strategy

Basin-wide or joint public participation and consultation of,  
for example, basin management plans

Joint resources to support transboundary cooperation

Capacity-building

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

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

Governance issues

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

Unexpected planning delays

*Please describe, if any:* []

---

Lack of resources

*Please describe, if true:* [**huge investments required**]

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?[]

(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?* [NA]

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

---

Yes /No

If yes, please provide further details: [**Development of the Ruvuma River Basin Monograph and Joint Integrated Water Resources Management Strategy.**]

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*): []

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

Yes /No

(b) If yes, how often:

More than once per year

Once per year

Less than once per year

(c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [**Through schedule technical and policy meetings**]

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

Environmental conditions

Research activities and application of best available techniques

Emission monitoring data

---

Planned measures taken to prevent, control or reduce

transboundary impacts

Point source pollution sources

Diffuse pollution sources

Existing hydromorphological alterations (dams, etc.)

Flows or water levels (including groundwater levels)

Water abstractions

Climatological information

Future planned measures with transboundary impacts, such as

infrastructure development

Other subjects (): [fill in]

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

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

Yes /No

(f) Is the database publicly available?

Yes /No

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

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

Frequency of exchanges

Timing of exchanges

Comparability of data and information

Limited spatial coverage

Inadequate resources (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*): [**informed decision on matters related to water resources management, implementation of drought and flood disaster risk reduction management programmes**]

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

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

National monitoring stations connected through a network or common stations

*Please describe:* [fill in]

---

Joint and agreed methodologies

*Please describe:* [fill in]

Joint sampling

*Please describe:* [fill in]

Common monitoring network

*Please describe:* [fill in]

Common agreed parameters

*Please describe:* [fill in]

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

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

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

Yes /No

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

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?* (**Stakeholders meetings, fora and scientific conferences**)

Stakeholders have observer status in a joint body

or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

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



---

[fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions

Other non-governmental organizations

General public

Other (please specify): [fill in]

Availability of information to the public

Consultation on planned measures or river basin

management plans<sup>4</sup>

Public involvement

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

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<sup>4</sup> Or, where applicable, aquifer management plans.

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#### 4.0 SECTION 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 [Article 27 of the Constitution of the United Republic of Tanzania, National Water Policy of 2002, Water Resources Management Act, No 11 of 2009; Sections 99 and 100]*

- (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: [At national level principles are implemented at Ministry of Water; **Through stakeholders sensitization, awareness creation and regulation control of water users**]

- (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          | <input checked="" type="checkbox"/> |
| Mining            | <input checked="" type="checkbox"/> |
| Energy            | <input type="checkbox"/>            |
| Municipal         | <input checked="" type="checkbox"/> |
| Livestock raising | <input checked="" type="checkbox"/> |
| Aquaculture       | <input type="checkbox"/>            |

Other (please list): [**Abortour; Farming**]

*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):* [The **waste water discharge permitting system is conducted through undertaking environmental impact assessment and abiding to National Water Quality Standards according to the use and nature of the water body where the semi treated water is discharged**]

*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                             | <input checked="" type="checkbox"/> |
| Monitoring of physical and chemical impacts on water | <input checked="" type="checkbox"/> |
| Monitoring of ecological impacts on water            | <input checked="" type="checkbox"/> |
| Conditions on permits                                | <input checked="" type="checkbox"/> |
| Inspectorate   | <input checked="" type="checkbox"/> |

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): [[explosive fishing](#)]

**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:* [**Arboutor**]

(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:* [**The system of payment for ecosystem services has been implemented in several catchments and there are plans for upscaling countrywide and also ecosystem based adaptation at the level of catchments**]

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

Yes /No

*If yes, please briefly describe the most important measures:*  
[**Demarcation of groundwater sources and recharge areas; controlling of discharge of effluent and chemicals in groundwater aquifers and controlling drilling of boreholes through issuing drilling permits**]

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.* **[Environmental Management Act No. 20 of 2004 SECTION 59]**

*If not, do other measures provide for transboundary EIA? [fill in]*

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## 5.0 SECTION IV FINAL QUESTIONS

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

Differences between national administrative and legal frameworks

Lack of relevant data and information

Difficulties in data and information exchange

Sectoral fragmentation at the national level

Language barrier

Resource constraints

Environmental pressures, e.g. extreme events

Sovereignty concerns

Please list other challenges and/or provide further details:

**[Differences in National Priorities regarding transboundary water management and cooperation]**

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: [**Knowledge transfer; Capacity Building**]

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

Joint body or mechanism

Other riparian or aquifer countries

National water management authority

Environment agency/ authority

Basin authority (national)

Local or provincial government

Geological survey (national)

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

Forestry and energy

Civil society organizations

Water user associations

Private sector

Other (please list): [**High learning Institution**]

Please briefly describe the process by which the questionnaire was completed: [**Group Discussion; Consultative meetings**]

4. If you have any other comments please add them here (*insert comments*): []



- 
5. Name and contact details of the person(s) who filled out the questionnaire (*please insert*): [**Tumaini Mwamyala**,  
**Email:** [tumaini.mwamyala@maji.go.tz](mailto:tumaini.mwamyala@maji.go.tz),  
**Mobile:** +255787490811]

**Date:** [21<sup>st</sup>August, 2020]



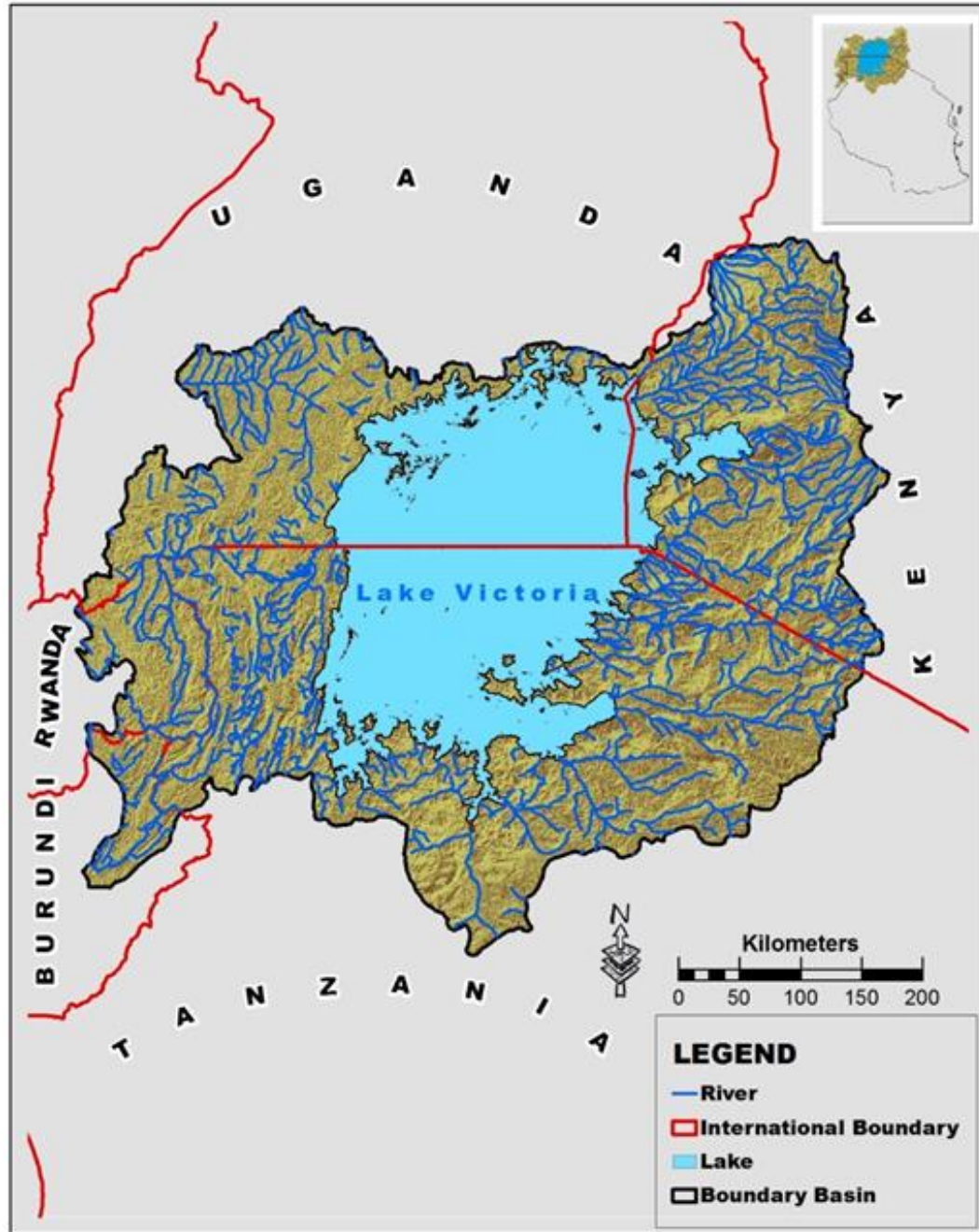
**Signature:**

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

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**ANNEXES**

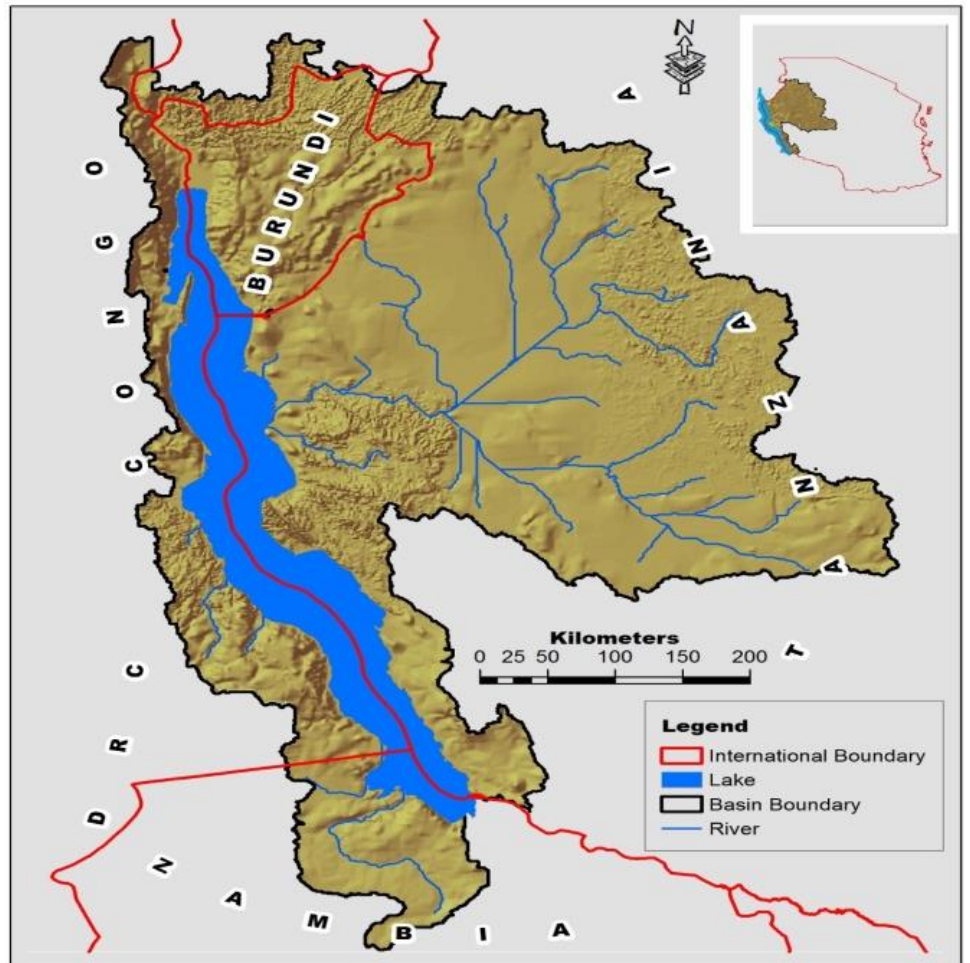
**Annex I: The Map of Lake Victoria Basin**



## Annex II The Map of Ruvuma River Basin



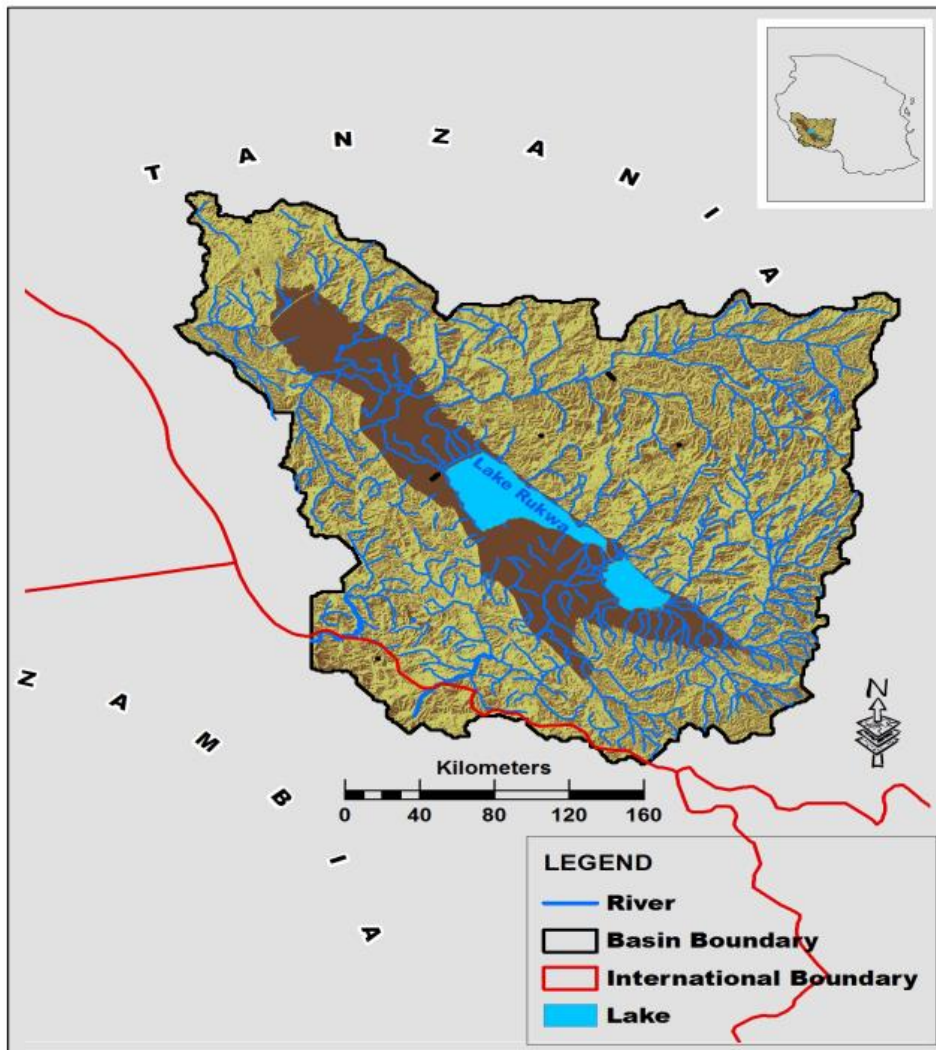
### Annex III: TheMap for Lake Tanganyika Basin



**Annex IV: The map of Pangani Basin ( Umba River, Lake Chala and Jipe Sub Basin)**



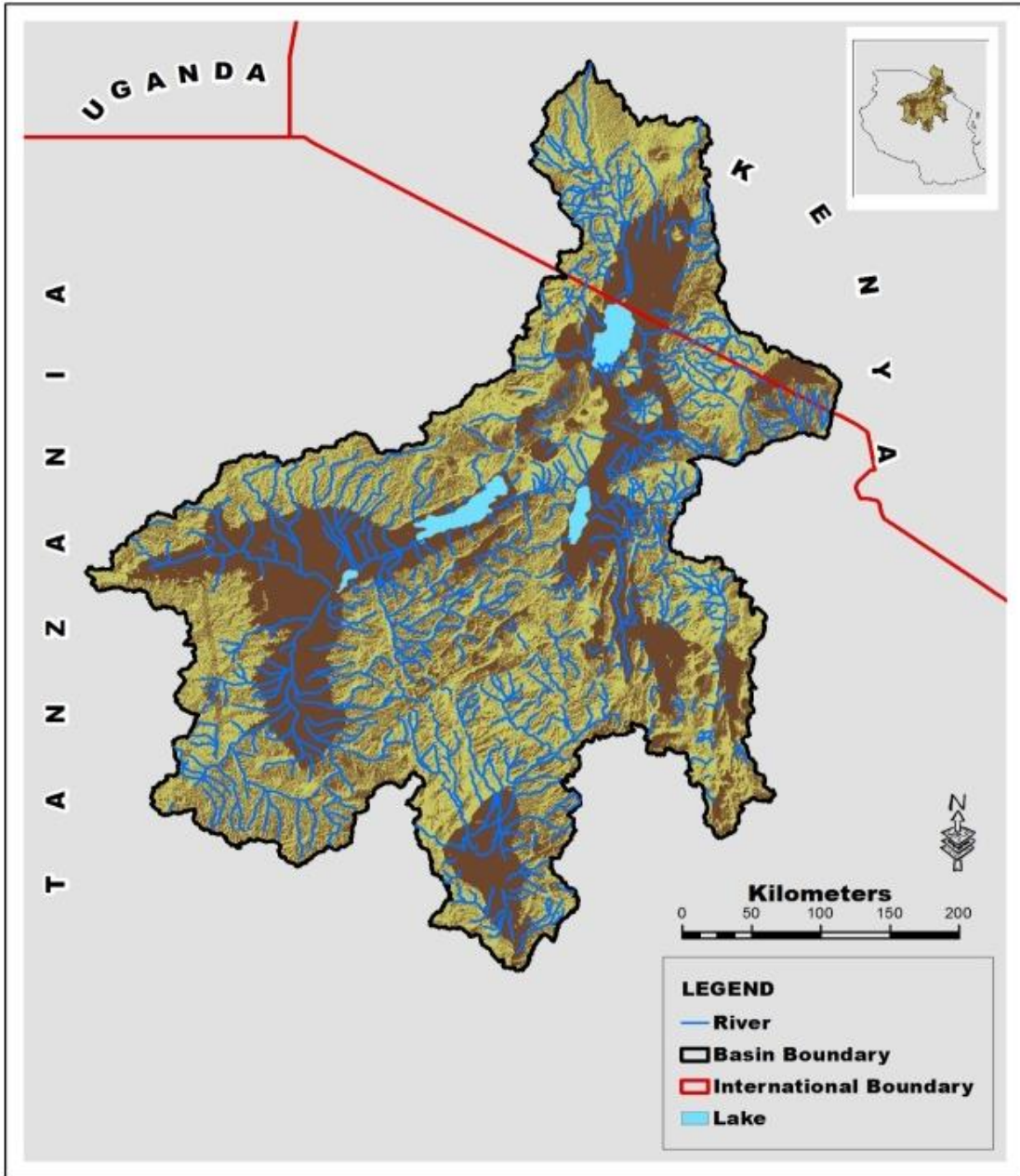
**Annex V: The Map of Lake Rukwa Basin ( Momba River Sub Basin)**



**Annex VI: The Map of Songwe River Sub Basin**

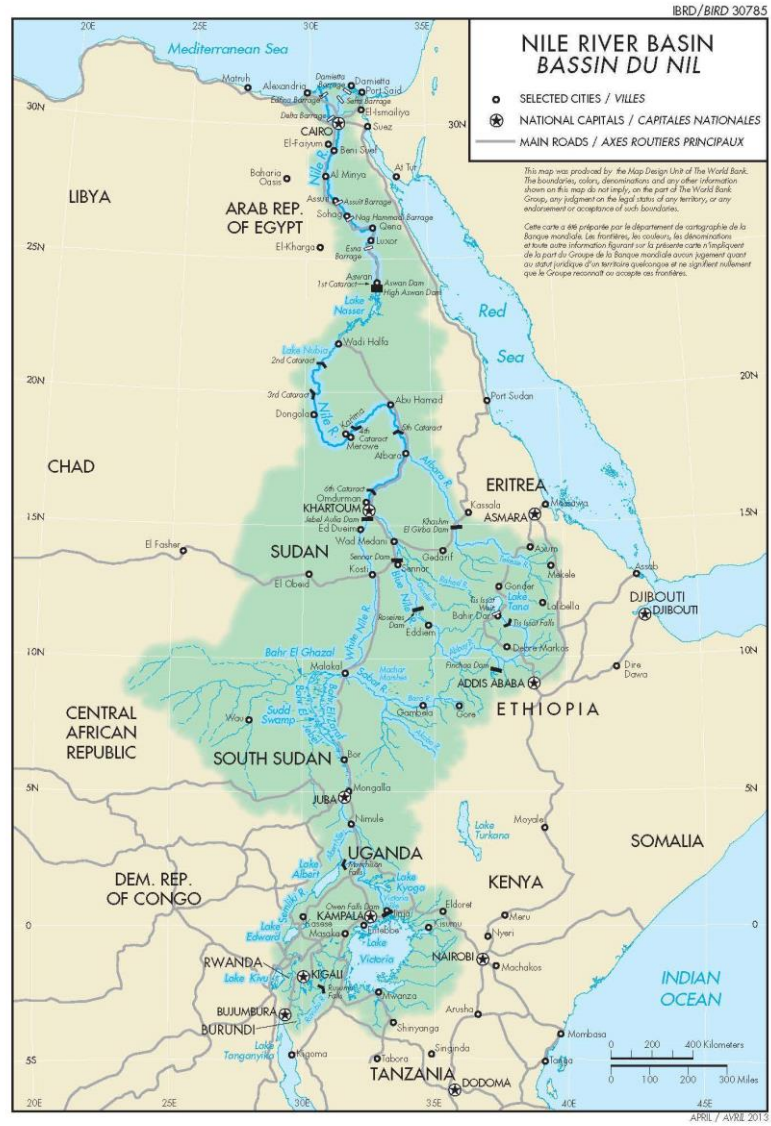


**Annex VII: The Map of Internal Drainage Basin (Lake Natron Sub Basin)**





## Annex VIII: The Map of Nile River Basin



## Annex XV: The Map of Zambezi River Basin

