

*Tanzania & Malawi Cooperating to Harness Songwe River Basin Water Resources
for Socio-economic Development*



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SONGWE RIVER BASIN DEVELOPMENT PROGRAMME
Interim Secretariat of Songwe River Basin Commission

PRESENTATION ON THE STATUS OF
THE SONGWE RIVER BASIN DEVELOPMENT PROGRAMME
TO
DISTRICTS PRIOR TO THE PROJECT PREPARATION MISSION BY AfDB
DATE: 06 – 09 MARCH, 2018

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PRESENTATION OUTLINE

- 1.0 Background of the SRBDP**
- 2.0 SRBDP and its Objective**
- 3.0 Work done under the Consultancy Services during Phase II**
- 4.0 Main Projects and their Costs in Priority Order**
- 5.0 Cost and Economic Analysis for Major Projects under the SRBDP**
- 6.0 Environmental and Social Impacts and Mitigation Measures**
- 7.0 Financing Strategy for the Projects under the SRBDP**
- 8.0 Implementation Arrangement for the Projects**
- 9.0 Donors' Conference**
- 10.0 Current Pledges for Financing**
- 11.0 Status of Lead Projects**
- 12.0 Status of Major Projects**
- 13.0 Benefits from Implementing the Projects under the SRBDP.**

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1.0 BACKGROUND OF THE SRBDP

1.1 The Songwe River Basin (SRB) lies in the Southwest of Tanzania and North of Malawi with an area of 4,243 km² covering parts of seven Districts of: Karonga and Chitipa in Malawi; and Kyela, Ileje, Mbozi, Mbeya Rural and Momba in Tanzania with a population of 341,104 (2013).

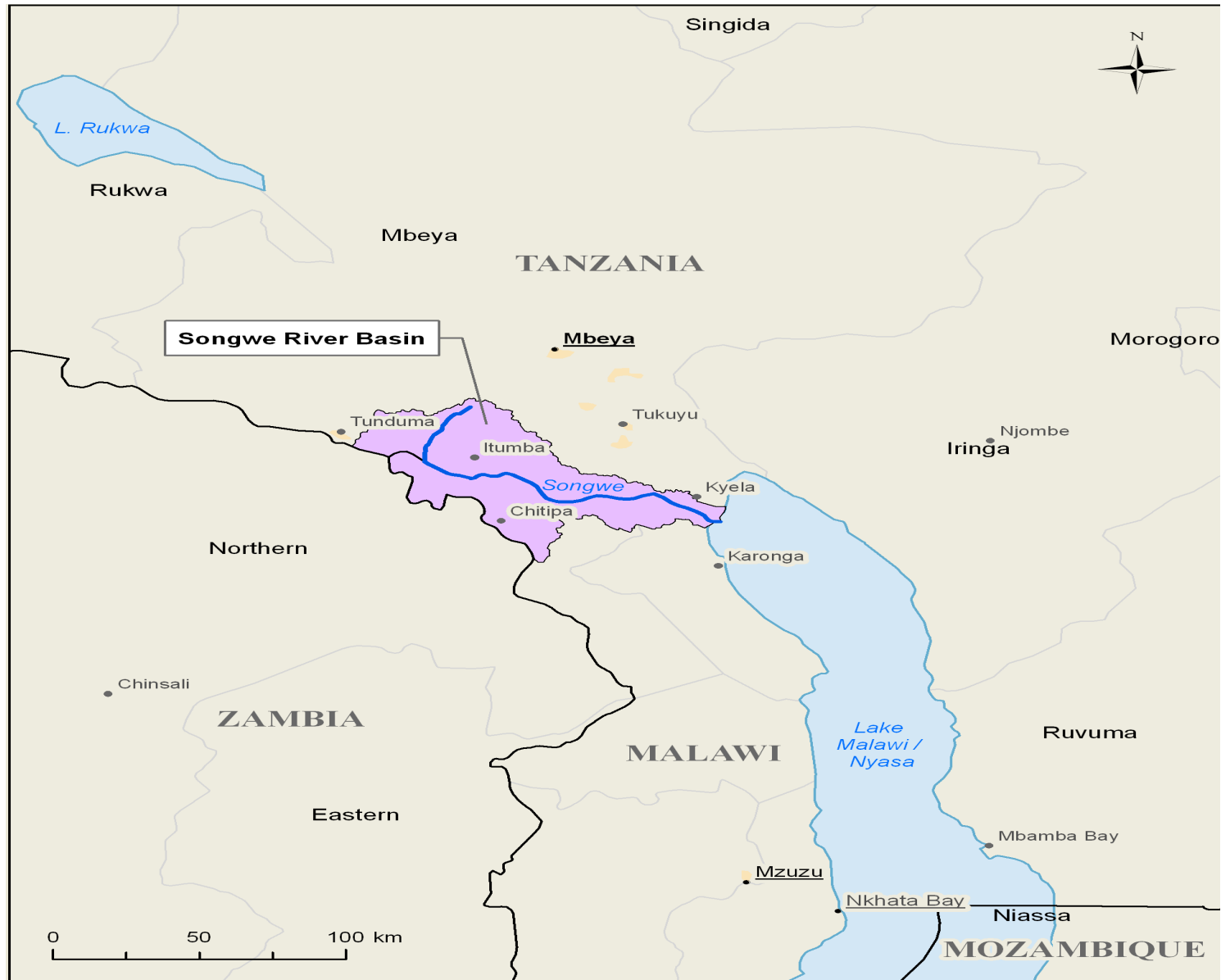
1.2 The SRB is endowed with fertile alluvial soils and abundant water resources.

1.3 Part of the boundary between Tanzania and Malawi is the 200km of the Songwe River from its mouth to Lake Malawi/Nyasa.

1.4 The Songwe River d/s of Kasumulu/Songwe is characterized by river meandering and change of its course and hence the international border.

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Map of Songwe River Basin



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Songwe River meander at Mpunguti Village, Katumba Songwe Ward



On the threshold of breaking through (On the right hand side the river is flowing away from the photographer while on the left hand side the river course has curved and now flowing towards the photographer. The cow is on the Tanzania side.)

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Meeting of the Government of the United Republic of Tanzania Songwe River Basin Commission



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Songwe River flowing full about to flood



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BACKGROUND OF THE SRBDP Cont....

1.5 Around 15,000 hectares with a population of more than 52,000 affected by flooding and shifting of the river course.

1.6 Up to 80% of the basin population consists of rural poor with basin average per capita average income at US\$386, which is below the international poverty line of US\$456.25.

1.7 Population growth at 2.88%, and poverty have led to significant population pressure on the environment and degradation of the basin's natural resource.

1.8 Erosion and other forms of land degradation are prevalent in the SRB, which adversely impact ecological functions, agricultural production and significantly contributes to poverty, inequality, and loss of livelihoods.

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1.9 Adaptation to climate change and variability impacts would mitigate potentially adverse impacts on food production and associated adverse environmental impacts.

1.10 Implementing the Multisectoral SRBDP will provide the solution to the mentioned challenges and utilizing the opportunities available in the basin.

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2.0 SRBDP AND ITS OBJECTIVE

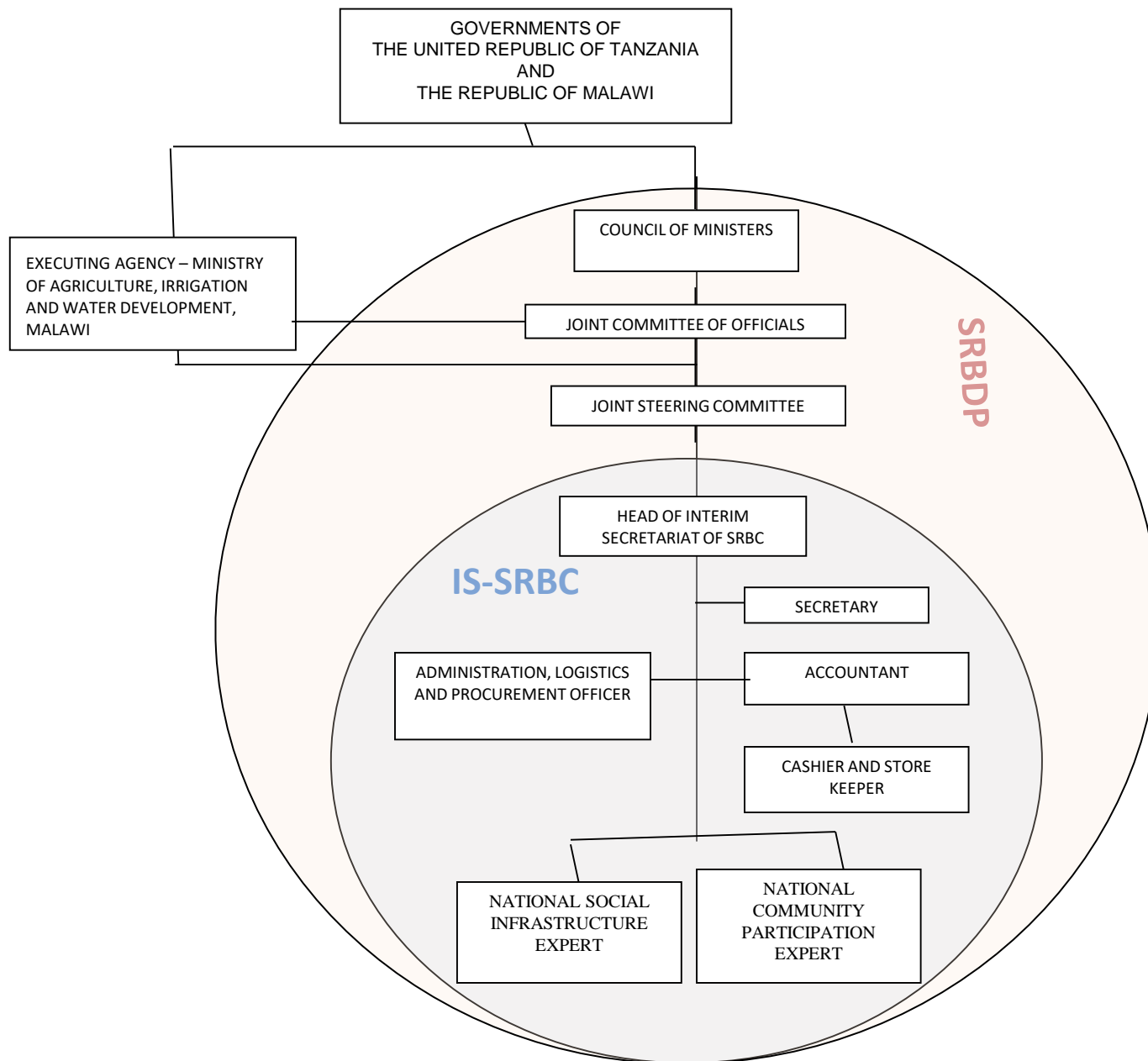
2.1 The SRBDP is a an international, transboundary river basin development programme in the territories of Tanzania and Malawi.

2.2 SRBDP is part of the SADC Regional Strategic Action Plan for IWRM aimed at fostering cooperation and equitable sharing of benefits of the shared watercourses.

2.3 The objective of the SRBDP is to contribute to economic growth, reduced poverty, improved health and livelihood, while reducing the socio-economic impacts of the meandering river on the communities living within the flood plain, and ensure enhanced food and energy security for the people within the entire Basin in the context of the overall sustainable and climate resilient interventions for socio-economic development of the two countries.

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CURRENT ORGANIZATION STRUCTURE FOR SONGWE RIVER BASIN DEVELOPMENT PROGRAMME



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SRBDP & ITS OBJECTIVE Cont....

2.4 From 2001 to 2003, the two Governments implemented Phase I of the SRBDP under which a feasibility study was conducted using funds from the Nordic Development Fund.

2.5 The findings of Phase I proposed construction of three flood control dams, whilst utilizing the opportunities to develop: Hydropower Plant (HPP); Irrigation Schemes; River Stabilization on the floodplain; Water Supply; Rural Electrification; and Fisheries, Tourism and Roads, including non structural measures for flood control and environmental conservation.

2.6 Hence subsequent interventions had to be through a multisectoral programme (SRBDP) of various projects:

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SRBDP & ITS OBJECTIVE Cont....

2.7 The second phase of the Programme was implemented from March, 2012 to Sept, 2015 as a **Detailed Design and Investment Preparation Project**, funded by the African Water Facility (AWF), the NEPAD-IPPF under the trusteeship of African Development Bank (AfDB); and the two Governments.

Cost of Implementation of Phase II was:

SN	Financier	Euro	%
1	AfDB (AWF & NEPAD-IPPF)	4,775,295	67.6
2	Governments (Mw & Tz)	2,293,357	32.4
Total		7,068,652	100.0

2.8 The Governments of Tanzania and Malawi employed a Joint Venture of two Consultants:

- Lahmeyer International GmbH of Germany; and
- Arab Consulting Engineers Moharram – Bakhoun (ACE) of Egypt.

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3.0 WORK DONE UNDER THE CONSULTANCY SERVICE DURING PHASE II

Work was done under four Components as follows:

3.1 Component I:

- a) Preparation of the Shared Vision 2050 for the Songwe River Basin; and
- b) Preparation of the Ten Years SRBDP.

The Ten Year SRBDP has three Sub-Programmes, namely:

- i) Community Development Sub-Programme;
- ii) Natural Resource and Land Use Management Sub-Programme; and
- iii) Economic Development Sub-Programme.

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Works done under the four Components Cont...

3.2 Component II: Feasibility Study, Designs and Preparation for Investment

- a) Updating the 2003 Feasibility Study;
- b) Supervision of the Sub-contracted Geotechnical Investigations;
- c) Detailed Designs for Lower Songwe Dam and Hydropower Plant (180.2MW);
Two Irrigation and Drainage Schemes (6,200 Hectares) and their
corresponding Tender Documents;
- d) Detailed Designs for the Lower Songwe River Floodplain;
- e) Detailed Designs for Water Supply Project for Kasumulu (TZ) and Songwe
(MW) small towns and Lower Songwe River communities;
- f) Plans for Rural Water Supply, Rural electrification, Fisheries Development,
Rural Roads, and Tourism, (These are Water Related Social Infrastructure);
- g) Plans for Environmental Conservation; and
- h) Plans for Capacity Building for Integrated Water Resources Mgt (IWRM).

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Works done under the four Components Cont...

3.3 Component III - Environmental Safeguards:

- a) Strategic Environmental and Social Assessment (SESA);
- b) Environmental and Social Impact Assessment (ESIA); and
- c) Preparation of the Env.& Social Magt. Plan (ESMP) and Resettlement Action Plan (RAP).

3.4 Component IV – Institutional Development:

- a) Preparation of the Convention for establishment of the Songwe River Basin Commission;
- b) Preparation of Business Plan for the SRBC; and
- c) Preparation of Instruments and Plans for Capacity Building for the Songwe River Basin Commission.

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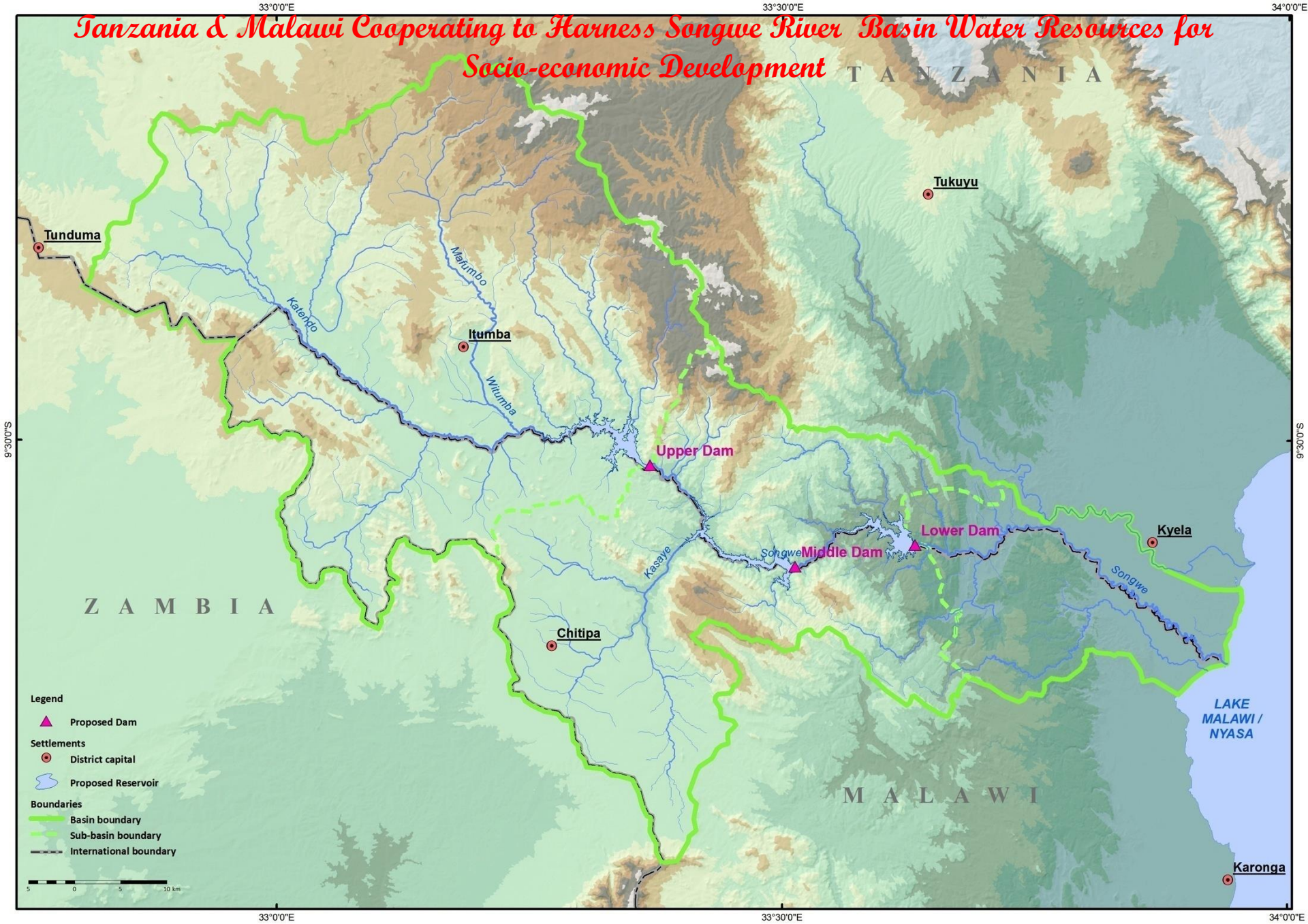
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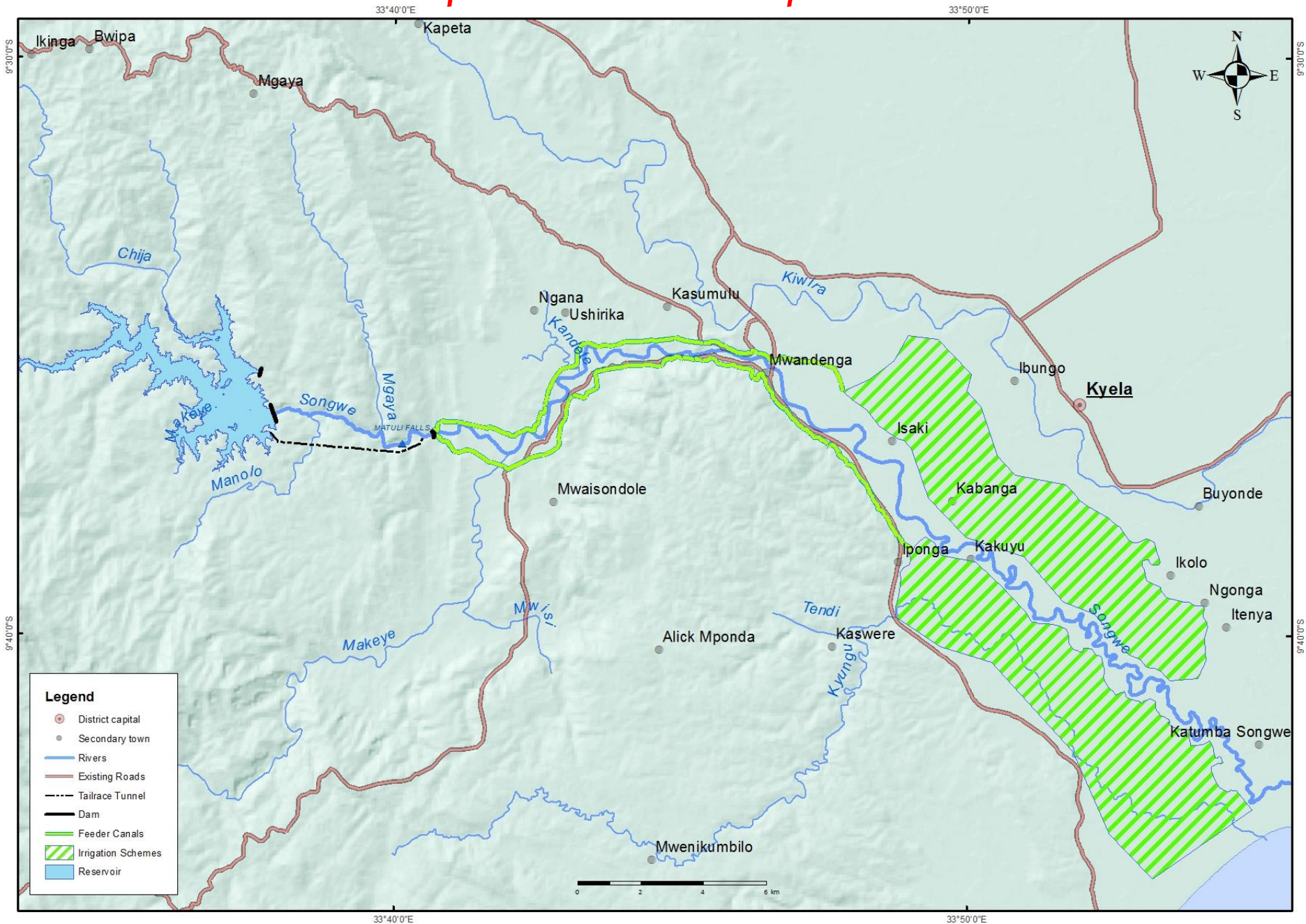
4.0 MAIN PROJECTS AND THEIR COSTS (Priority Order)

SN	PROJECT	COST (USD)
1	Lower Songwe Dam and Hydropower Plant	550,000,000
2	Irrigation Schemes	99,000,000
3	Water Supply Projects	22,000,000
4	Institutional and Environmental Measures	13,000,000
5	Priority Social Infrastructure (roads, schools & Health Centers)	3,000,000
	Sub-total Priority Investments	687,000,000
6	Rural Electrification	90,000,000
7	Social Infrastructure	42,000,000
8	Economic Development	8,000,000
9	Detailed Design Middle Dam	2,000,000
	Sub-total Other Investments	142,000,000
GRAND TOTAL		829,000,000

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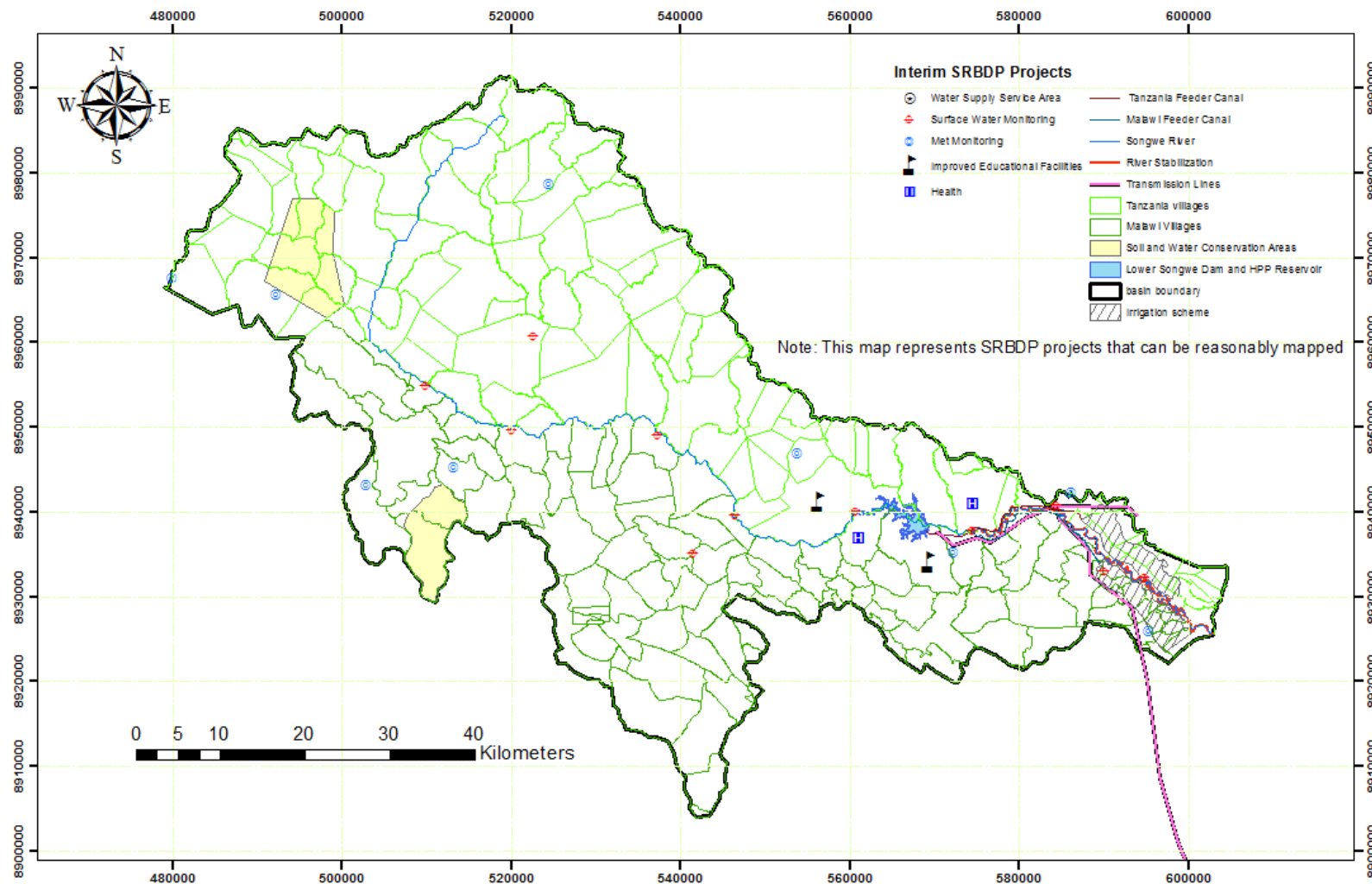


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Figure: Power Transmission Line to Sub-Station B then to Kyela and Karonga (*purple color*)



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5.0 COST & ECONOMIC ANALYSIS FOR MAJOR PROJECTS OF SRBDP

5.1 Lower Songwe Dam and Hydropower Plant

- a) Estimated construction period: 60 months;
- b) Capital Cost: \$US 550.00 million;
- c) Annual Revenues: \$US 66.1 million;

As a stand alone hydropower project:

- a) Economic Internal Rate of Return (EIRR): 11.28%;
- b) Economic Benefit Cost Ration (EBCR): 1.13 (discount rate 10%)

As a multipurpose project supporting the two irrigation schemes:

- a) EIRR: 11.02%; and
- b) EBCR: 1.10 (discount rate 10%).

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Cost & Economic Analysis Cont....

5.2 Lower Songwe River Irrigation Schemes, Tanzania and Malawi (LSRT&LSRM)

- a) **Total Net area: 6,200 ha**
- b) **(LSRT 3,150 ha) and (LSRM 3,050 ha)**
- c) **Investment Cost: US\$ 99.00 million (LSRT US\$ 49.82 m.) & (LSRM US\$ 49.18 m)**
- d) **Annual Net Benefits: US\$ 16.9 million**
 - **(LSRT US\$ 7.7 million) and (LSRM US\$ 9.2 million)**
 - **Farm level incremental net benefit: US\$ 2,114 per ha**
- e) **Combined EIRR: 10.54%, individually: (LSRT 9.55%) and (LSRM 11.38%)**

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6.0 ENVIRONMENTAL & SOCIAL IMPACTS AND MITIGATION MEASURES

6.1 Environmental and Social Impacts

The ESIA was conducted for:

- a) The Lower Dam and its associated facilities (access roads, HPP, transmission lines and substations and construction camps);
- b) Irrigation schemes;
- c) Water Supply for Kasumulu and Songwe; and
- d) Lower Songwe River Stabilisation.

All significant adverse impacts can be either avoided or mitigated to acceptable limits.

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ENVIRONMENTAL Cont....

6.2 Mitigation Measures for Environmental and Social Impacts

Environmental and Social Management Plan (ESMP), accompanied by a Resettlement Action Plans (RAP) have been prepared as instruments for mitigation measures.

6.3 Resettlement Action Plan (RAP)

RAP has been prepared in accordance with:

- a) AfDB's Involuntary Resettlement Policy;
- b) World Bank requirements as stated in OP 4.12 "Involuntary Resettlement"; and
- c) Taking into consideration corresponding legal frameworks of Malawi and Tanzania.

6.4 Some of the Reflections of the RAP

There are 63 households with their 316 family members affected by the Project through loss of their houses and/or productive land.

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7.0 FINANCING STRATEGY FOR THE PROJECTS

7.1 Expected Funding Sources

Projects under the SRBDP are expected to be funded by a combination of funders with varying mandates and objectives. The sources of financing can be grouped into three areas:

- a) Public sector/donors;
- b) Private sector; and
- c) Innovative sources such as Climate financiers, etc.

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7.2 Financing Requirement

From the detailed designs, followed by the advice from CRIDF analysis, financing requirement is categorized in three areas as indicated below:

N PROJECT	FINANCING STRUCTURE	%
1 Lower Songwe Dam and Hydropower Plant <i>(Suitable for PPP approach)</i>	Total funding required: USD550.00million - USD284m Private Sector Financing; - USD213m Public Sector Financing; and - USD53m Equity from Governments of Tanzania and Malawi.	66
2 LSRM & LSRT Irrigation and Drainage Schemes	Total funding required: USD99.00m - USD99.00m Concessional loan from DFIs/MDBs	12
3 Social Projects <i>(Include: roads, Rural electrification, schools, Health Centers, fisheries, tourism, environmental & Capacity Building)</i>	Total funding required: USD180.00m - USD65.45m Grant from Donors; - USD98.19m Grant from SRBC; and - USD16.36m Fiscal transfer from Govts of Tanzania and Malawi.	22
TOTAL	829.00m	100

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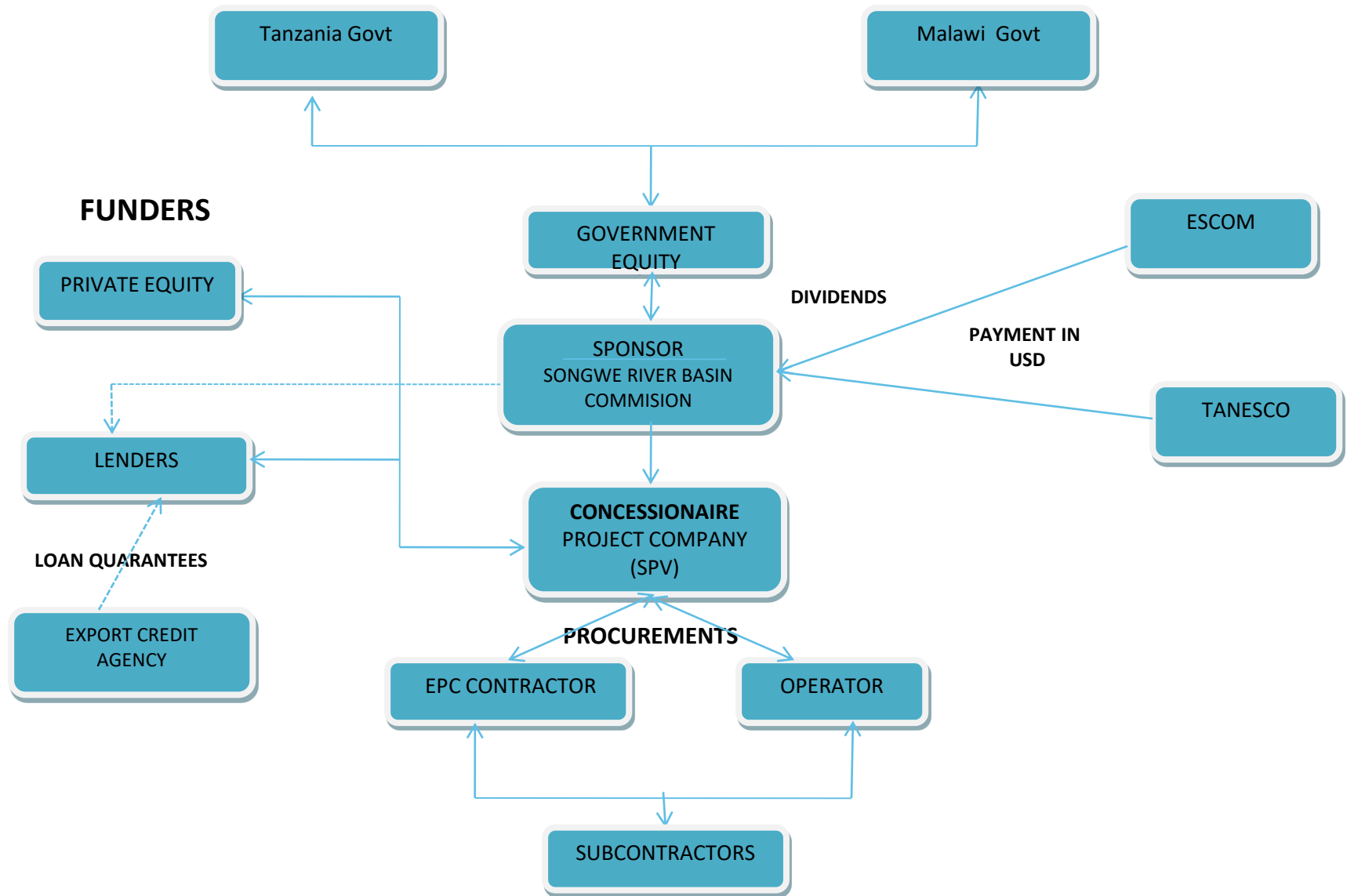
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7.3 Financing of Priority Projects

N	PROJECT	COST USDm	FINANCING BY PRIVATE SECTOR	FINANCING BY PUBLIC SECTOR	GOVERN MENTS' EQUITY
1	Lower Songwe Dam and Hydropower Plant	550	284	213	53
2	Irrigation Schemes	99		99	
3	Water Supply Projects	22		22	
4	Institutional and Environmental Measures	13		13	
5	Priority Social Infrastructure	3		3	
TOTAL		687	284	350	53

7.4 Project Financing Structure for the Lower Songwe Dam & HPP Project under PPP



NOTE: a) PPP arrangement is envisaged for investment in the Lower Songwe Dam and HPP; and
b) The Lower Songwe Dam and HPP is the centerpiece of the entire SRBDP

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8.0 IMPLEMENTATION ARRANGEMENT OF THE PROJECTS

8.1 Projects in Three Groups

8.1.1 Lead Projects during the Interim Phase (under IS-SRBC)

- a) Conservation and Natural Resources Management;
- b) Institutional Capacity Building;
- c) Village Water Supply; and
- d) Community Development.

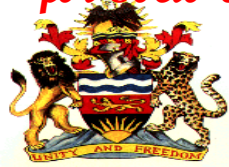
8.1.2 Major Projects (under the SRBC)

- a) Lower Songwe Dam and Hydropower Plant & Associated Facilities; and
- b) Irrigation and Drainage Schemes.
- c) *Including Priority Social infrastructure*

8.1.3 Economic Development Projects

- a) Small and Medium Industries;
- b) Fisheries Development; and
- c) Tourism Development.

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8.2 Governments Supporting Commitments for Projects Implementation

8.2.1 Convention for Establishment of the Songwe River Basin (TZ-7th July, 2017; MW-May, 2017)

8.2.2 Memorandum of Understanding for Phase III (signed on 18th May, 2017 in Lilongwe, Malawi)

8.2.3 Joint Ministerial Declaration (December, 2016 in Mbeya, Tanzania)

8.2.4 Tz & Mw Joint Permanent Commission for Cooperation (JPCC) – March, 2017 in Lilongwe, Malawi.

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IMPLEMENTATION ARRANGEMENT Cont....

S N	PROJECT CATEGORY	PERIOD (YEARS)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
1	Energy and Power	9																
2	Irrigation and Agriculture	5																
3	Water Supply	10																
4	Conservation & Natural Resources Managt	7																
5	Community Development	15																
6	Institutional Capacity Building	7																
7	Economic Dev. Projects	4																

9.0 Donors' Conference

The Donors' Conference was conducted on 18th May, 2017 in Lilongwe, Malawi.

a) Officiated by High Level Leaders:

- Officially opened by Honorable Dr. Goodall E. Gondwe, Minister of Finance, Economic Planning and Development, Malawi on behalf of the President of the Republic of Malawi, His Excellency Professor Arthur Peter Mutharika.

b) Throughout Co-Chaired by:

- Honorable Dr. Aggrey Masi (MP), Deputy Minister of Agriculture, Irrigation and Water Development (MW); and
- Honorable Eng. Gerson Lwenge (MP), Minister for Water and Irrigation, TZ).

c) Participants:

The conference was attended by 79 participants whereby:
39 were Development Partners, Investors, Private Sector representing 16 organizations; and 40 Government Officials.

d) Outcome:

All 39 Development Partners/Investors indicated interest in all 9 categories of projects varying from 3 to 9.

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10.0 CURRENT PLEDGES FOR FINANCING

- a) The Global Environment Facility (GEF) has already committed a grant of **USD 6.4 Million** to implement one of the Lead projects to be called “Strengthening Transboundary Cooperation and Integrated Natural Resources Management in the Songwe River Basin” Project; and
- b) The Governments of Malawi and Tanzania are now mobilizing financial resources to implement the SRBDP:
 - from within to cover their input which includes an envisaged equity of **USD53million**; and
 - From Development Partners, Donors and Potential Investors.

11.0 STATUS OF LEAD PROJECTS

- **Preparation** for the Strengthening Transboundary Cooperation and Integrated Natural Resources Management in the Songwe River Basin Project (STC&INRM-SRBP).
- **Started:** on 1st Sept, 2017. Using funds from GEF.
- **Consultant:** Witteveen+Bos Raadgevende ingenieurs B.V. Netherlands.
- **Preparation duration:** 9 Months (up to June, 2018).
- **Validation Workshop:** Conducted on 12th December, 2017 in Mbeya, Tanzania.

The Project has four components as indicated below to be implemented for 4 years:

a) **Component 1: Enhancing Transboundary Management and Institutional Capacity**

Objective: To define how an effective, well-functioning river basin commission should operate and identify the institutional, financial or technical gaps in the current institutional set up to allow the SRBC to fulfil its core functions.

Targeted Outcome: Improved Songwe River Basin Integrated Water Resources Management and Development (IWRMD), through a cooperative, transboundary framework.

Status of Lead Projects Cont...

b) Component 2: Improving Flood Early Warning, Disaster Risk Management and Monitoring Measures

Objective: To design and prepare a Flood Forecasting and Early Warning System (FFEWS), incorporating existing monitoring and warning systems.

Targeted Outcome: Significant reduction of flooding, reduced damage to property and loss to livelihoods on the floodplain and optimized hydropower production.

c) Component 3: Community-based Demonstrations in Integrated Natural Resources Management (INRM) and Conservation

Objective: To appraise the current watershed and forestry management in order to develop a community based conservation, forestry and INRM strategy and demonstration activities to remediate degradation in the SRBasin through the identification of suitable pilot sites in Malawi and Tanzania for future replication to ensure environmental sustainability and utilisation of the Basin.

Targeted Outcome: Improved land and natural resource management, with scope for replication across the Songwe River Basin.

Status of Lead Projects Cont...

d) Component 4: Knowledge, Monitoring and Evaluation

Objective: To develop a modern GIS based SRBasin knowledge base and Management Information System (MIS) building on the Songwe Water and Land information system, and establishment of a basin wide modernized M&E system for the SRBDP implementation, which will enhance the quality and effectiveness of both strategic and operational planning within the SRBC.

Targeted Outcome: A Knowledge Management strategy prepared and implemented as part of project management activities, including information sharing and contribution to IW experience learning (International Waters LEARN related activities).

▪12.0 STATUS OF MAJOR PROJECTS

Lower Songwe Dam and Hydropower Plant Project

-Implementation through PPP approach:

- a) Financing process for engaging a Transaction Advisor (TA) for the PPP approach is underway.**
- b) The African Legal Support Facility (ALSF) under AfDB will provide a Grant USD1,700,000. for the TA services.**
- c) In October, 2017 the NEPAD-IPPF approved a Grant USD500,000 as its contribution for the cost of a TA.**

In both cases, signing of the Letter of Agreement (LoA) for that matter is in process and is expected to be ready by March, 2018.

Status of Major Projects Cont.....

Once engaged, the TA assignment will be in three phases:

Phase1: The TA will undertake a comprehensive review of the existing feasibility studies (i.e, technical and financial reports);

Phase2: The TA will undertake a Feasibility Study/Business Case to identify an optimal PPP and financing model, and seek approval of his Report from the Contracting Authority and the relevant authorities in Malawi and Tanzania.

Phase3: The TA will assist the Contracting Authority in liaising with and mobilising finance from DFIs and other financiers as well as with bidders' engagement and bidder negotiations through to financial close, including redrafting of documents and drafting of new legal and other agreements as may be required.

Also the TA will assist in developing and implement appropriate management structures and supervise the work of the Experts.

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13.0 BENEFITS FROM IMPLEMENTING THE PROJECTS UNDER THE SRBDP

Investment in Water Resources Development Infrastructure and Management of the basin will lead to:

- a) Reduced frequency of floods in the flood plain (*Over 52,000 people to be relieved*);
- b) Increased access to electricity for *60%* of the populations in the basin and the entire two countries;
- c) Increased irrigated land and crop yield (*5,500 farm families in the basin to benefit +*);
- d) Increased access to water supply, and sanitation (*Over 260,000 people by year 2025*);
- e) Increased employment (*5,244 full-time jobs/year in agric. sector and 5,560 & 3,000 person-years during constr. & O&M for 50yrs respectively for both Agric & HPP*);
- f) Enhanced livelihood for the people living in the Basin; and
- g) Improved cooperation in Trans-boundary WRM between the two Governments through a formal framework under the SRBC.

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THANK YOU FOR YOUR ATTENTION;
ZIKOMO KWAMBIRI;
TAWONGA;
AHSANTENI SANA KWA KUNISIKILIZA

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SONGWE RIVER BASIN DEVELOPMENT PROGRAMME
Interim Secretariat of Songwe River Basin Commission

ANNEX: DETAILED PROJECT CATEGORIES AND COSTS

Projects are described in seven categories with their costs as tabulated in the next seven slides.

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Table: Projects Categories, Costs and Implementation Period

S N	CATE GORY	NO.	PROJECT NAME	TOTAL ESTIMATED COST (USD)	ESTIMATED COST UNDER IS-SRBC (USD)	IMPLEME NTATION PERIOD	REMARKS
1	2	3	4	5	6	7	8
1.0	ENERGY AND POWER	1.1	Lower Songwe Dam and Hydropower Plant	550,000,000	0	2019 - 2024	Installed Cap 180.2 MW
							Annual Rev: US\$ 66.1 mill.
							EIRR 11.02 % with irrigation
		1.2	Rural Electrification	41,775,320	0	2020 - 2027	Servicing 23,000 households (approx. 25% of the basin population in 2022). 38% of total cost is for connection charges, but recommended to be supported by SRBC.
		1.3	Detailed Design for Middle Dam and HPP	2,142,599	0	2021 - 2022	Detailed design of the Middle Songwe Dam and HPP to be completed for start of construction after Lower Songwe Dam completed
Subtotal				593,917,919	0		

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1	2	3	4	5	6	7	8
2.0	AGRICULTURE AND IRRIGATION	2.1	LSRM Irrigation and Drainage Scheme	49,177,874	0	2021 - 2024	Area: 3,050 ha in Malawi. Annual Net Benefits: US\$ 12.7 million
							EIRR 11.38% alone, 10.54% with LSRT
		2.2	LSRT Irrigation and Drainage Scheme	49,822,126	0	2021 - 2024	Area: 3,150 ha in Tanzania Annual Net Benefits: US\$ 7.7 mil
							EIRR 9.95% alone, 10.54% with LSRM
		2.3	Land Tenure Formalization in Irrigation Schemes	549,800	0	2019 - 2022	Project addresses sustainability if irrigation investments involve land ownership formalized
		2.4	Studies on Rain Water Harvesting & Assessment of Irrigation Schemes	156,700		2022 - 2023	Assesses existing small irrigation to identify opportunities for increased agricultural productivity
Subtotal				99,706,500	0		

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1	2	3	4	5	6	7	8
3.0	WATER SUPPLY	3.1	Village Water Supply	13,230,000	3,992,700	2017-2027	Phase 1 is being undertaken from 2017-2020 under the Interim SRBC. The remainder will be completed between 2021 and 2027.
		3.2	Urban Water Supply, Kasumulu, Tanzania	4,328,000	0	2024-2025	This project has been designed under the current project taking water from the LSRT I&D Feeder Canal.
		3.3	Urban Water Supply, Songwe, Malawi	4,328,000	0	2024-2025	This project has been designed under the current project taking water from the LSRM I&D Feeder Canal.
Subtotal				21,886,000	3,992,700		

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1	2	3	4	5	6	7	8
4.0	CONSERVATION AND NATURAL RESOURCES MANAGEMENT	4.1	Community Forestry Managt for Stabilizing the Lower Songwe Riv	642,780	642,780	2017 - 2020	Reforestation of the 60 meter legal buffer zone to reduce erosion and stabilize the river channel and the international border.
		4.2	Integrated SWC and Fertility Managt for Rainfed Maize Prod	2,119,000	1,059,500	2017 - 2024	Phase 1 to be implemented from 2017-2021 under IS-SRBC, supported by donor funding. Project completion 2021-2027 supported by SRBC reven.
		4.3	Upper Catchment Area Protection Project	610,600	0	2020 - 2022	Reducing the current high rates of deforestation, bushfires and encroachments into protected areas. Focusing Mbozi Distr 19,610 ha), Tz.
		4.4	Improved Forestry Management	549,800	549,800	2017 - 2020	Under IS-SRBC, the Project builds capacity in the District Offices and targeted forest communities. Later on dissemination to rest of SRBC.
Subtotal				3,922,180	2,252,080		

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1	2	3	4	5	6	7	8
5.0	COMMUNITY DEVELOPMENT	5.1	Rehabilitation and Construction of New Schools	15,124,000	1,414,200	2017-2020	Phase 1 Project under Interim SRBC, remainder to be implemented 2021- 2017.
		5.2	Rehabilitation of existing and construction of new Health Facilities	6,552,609	1,821,000	2017-2020	Phase 1 project under Interim SRBC, remainder to be implemented 2021- 2027.
		5.3	Rehabilitation and upgrading of existing roads	71,543,414	0	2018-2032	To improve access to markets and income generating activities throughout the SRB
Subtotal				93,220,023	3,235,200		

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1	2	3	4	5	6	7	8
6.0	INSTITUTIONAL CAPACITY BUILDING	6.1	Institutional Development Support and capacity building for SRBC	7,499,900	0	2018 - 2024	Key costs will include: Office establishment, Personnel costs, Furniture & Office Equipment, Training and Recurrent costs.
		6.2	Lower Songwe Floodplain Early Warning and Response System	824,900	0	2018 - 2023	Flood early warning equipment will be part of the Lower Songwe River Dam and Response Systems will be put in place for Lower Basin residents.
		6.3	Hydrometeorologic al Monitoring System	455,302	455,302	2017 - 2020	Establish the monitoring network with computers and other equipment for the central data assessment centre. Implemented under the Interim SRBC.
Subtotal				8,780,102	455,302		

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7.0	ECONOMIC DEVELOPMENT	7.1	Small and Medium Industry (SMI) Dev. Facility	1,340,000	0	2024-2028	Promote diversity in the SRB economy by stimulating SMI to take up non-agricultural business opportunities
		7.2	Trial Stocking of Lower Songwe Dam Reservoir	267,825	0	2024-2026	Lower Songwe Dam reservoir is a sub-optimal fish stocking opportunity, to be tested to determine its feasibility.
		7.3	Dev. of Fish Ponds in Lower Songwe Basin	3,840,200	0	2025-2028	Devlpnt of fish ponds to bring aquaculture into the basin. Expected private sector to invest following promotion by SRBC.
		7.4	Promotion of Tourism in SRB	50,351	0	2020-2022	SRBC to promote tourism development to attract private sector developers.
		7.5	Tourism Dev.– Tz & Mw	1,929,700	0	2024-2027	Various projects identified for private sector investment
		7.6	Training for Tourism	139,400	0	2022-2024	Training under local colleges for various tourism positions. Expected financing from local education budgets
Subtotal				7,567,476	0		
TOTAL		26	1.07129939	829,000,200	9,935,282		