

Joint Songwe River Basin Commission



DEVELOPMENT OF LOWER SONGWE DAM, HYDROPOWER PLANT, AND TRANSMISSION LINES PROJECT

PRESENTED BY: SONGWECOM SECRETARIAT

SEPTEMBER 2025



Background and introduction

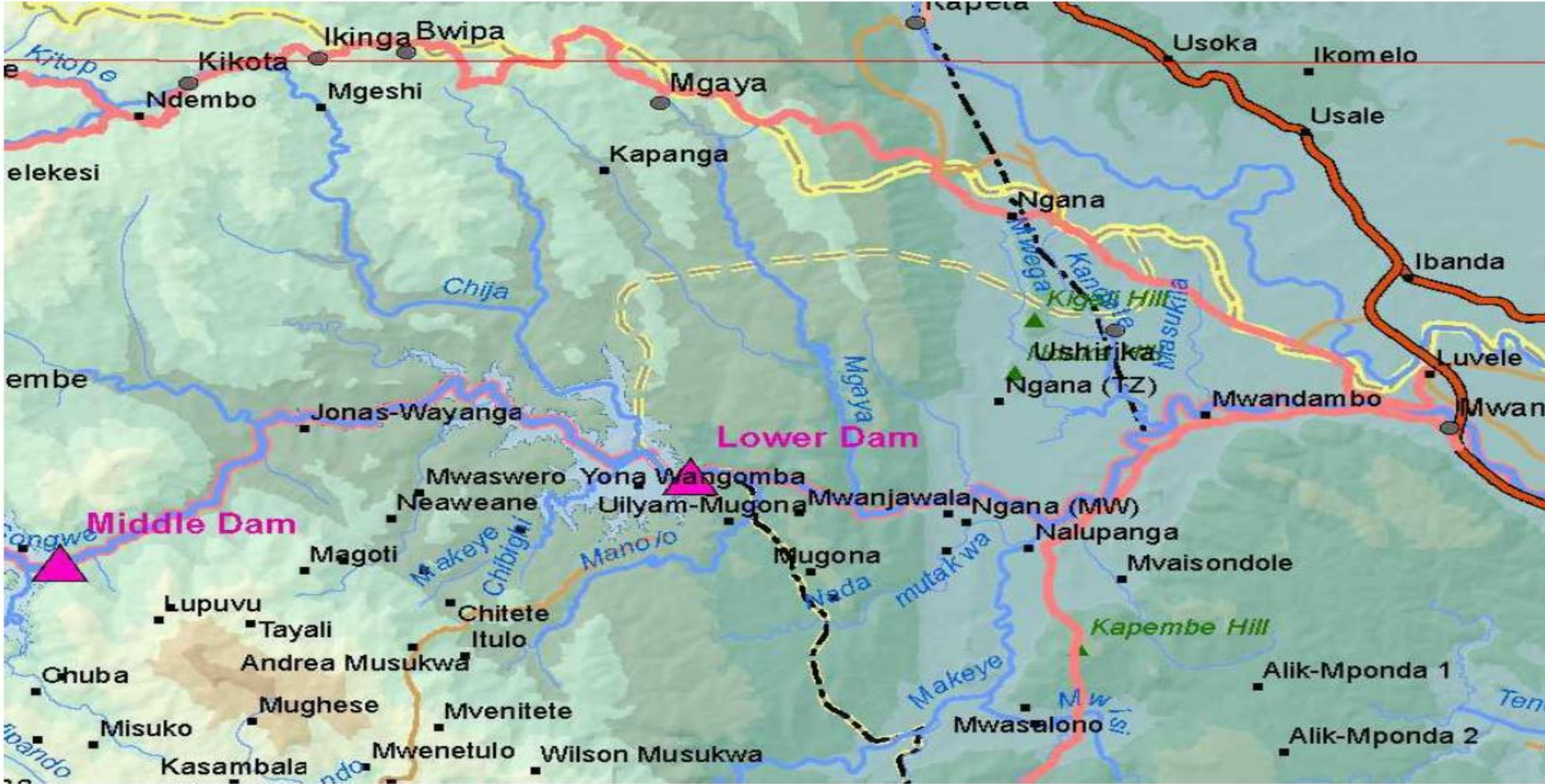
- Construction of the Lower Songwe Dam is one of the flood mitigation measures identified during the feasibility study of the SRBDP.
- The Lower Songwe Dam and HPP is to be constructed across the Songwe River in the South Western part of Tanzania/Northern Eastern Malawi, approximately 36km upstream of the mouth of the Songwe River at Lake Malawi/Nyasa. It is to be constructed over a period of 60 months at a cost of US \$761.1 million and US \$90 million for two 400KV transmission lines, totaling US \$851.1 million. Location: [Uilyam-Mugona Village \(Chitipa, Malawi\)](#) and [Ngana village \(Ileje, Tanzania\)](#).
- It consists of three major components:
 1. Construction of the Lower Songwe Dam, which is a Roller-Compacted Concrete (RCC) gravity dam with a reservoir capacity of approximately 330 million cubic metres at full supply level, a crest length of 517 m, and a dam height of about 118 m;
 2. Construction of a hydropower Plant with a total installed capacity of 180.2 Megawatts
 3. Construction of 2 Transmission lines @ 400KV and 132KV
- Most of the other projects depend on its implementation, e.g., irrigated agriculture, rural electrification, water supply (Kasumulu and Songwe Towns), fisheries, and tourism development.



Project Description

- **Overview:** to be implemented through a Public-Private Partnership (**PPP**) using a Build-Operate-Transfer (**BOT**) model
- **Development stage:** Currently at the Structuring and **Finance Mobilization** Stage. A Transaction Advisor will be engaged to support the structuring and implementation of the PPP process.
- **Timelines:** Prepared 2015 and construction to run for a duration of **5 years (2026-2031)**, **50-year** lifetime.
- **Sectors:** Water Supply, Sanitation, Irrigation, Ecosystem Management, Flood Management, and Energy
- **Paradigm shift:** Scalable, replicable model of climate-resilient, transboundary infrastructure under a PPP-BOT model, mainstreaming gender, policy reform, and behavioral change.

Location of Lower Dam



Project Sponsor Profile and Key partners

- **Sponsors:** Investment is sought through a PPP/BOT structure supported by concessional loans and grants.
- **Countries' commitments:** Council of Ministers in its 4th Session approved the project as PPP-BOT; USD 3.7 million is committed to be provided by governments to update the 2015 studies and TA; SPV establishment
- **Key partners:** Joint Songwe River Basin Commission (SONGWECOM) as a leading institution established under a Convention ratified in 2018.

Republic of Malawi and United Republic of Tanzania

Financial institutions

Private sector

Dedicated Special Purpose Vehicle

Key benefits of the Project



Flood Mitigation

Protecting over 82,000 people from floods.



Agricultural Productivity

Irrigation for 6,200 hectares, benefiting 5,500 households.



Employment Creation

Creating over 5,500 jobs during construction and operation.



Livelihood Enhancement

Boosting fisheries, eco-tourism, and agriculture.



Electricity Generation

Adding 180 MW to the national grids, benefiting >60% of the population.



Water Supply & Sanitation

Improved potable water access for 460,000 people.



Climate Adaptation, Resilience & Mitigation

Floods controlling & Reducing GHG emissions by 198,597 tCO₂e annually.



National Grid Support

Stabilizing grids in both Tanzania and Malawi.

Alignment and contribution to Country/regional and International priorities

The project supports the countries' commitments towards the Global Sustainable Development Goals:

- SDG 2: Zero Hunger
- SDG 6: Clean Water and Sanitation
- SDG 7: Affordable and Clean Energy
- SDG 13: Climate Action
- SDG 17: Partnerships

The project also feeds into different national policies, strategies, and programmes:

- United Republic of Tanzania: Tanzania's five-year development plan phase 3 (2021/22-2025/26)
- Republic of Malawi: Malawi vision 2063 Ten-year implementation Plan
- Nationally Determined Contributions (NDCs)



Readiness for the project

- **Consultations since 2014 with more than 70 partners consulted**
- **MOU on Cooperation in the Energy Sector with priority in Lower Songwe dam and HPP signed on 11th August, 2023**
- **Joint Ministerial Committee (JMC) (Energy sector ministers & other sectors as appropriate)-advising governments on measures to implement the MOU, Joint Steering Committee (PSs-Energy & other sectors as appropriate)-advising the governments during negotiations and implementation**
- **Joint Technical Committee (JTC)-the MOU established technical advice, met 3 times already**
- **MOU on interconnection was signed on 11th August 2023**
- **Governments in internal consultations to form a joint negotiation team**
- **Drafting Bilateral Agreement ongoing, minimum criteria, and roadmap**

Readiness for the project (to be updated)

Studies conducted and documents prepared

1. Feasibility Study Report (2015)
2. Detailed Design and tender documents (2015)
3. Strategic Environment and Social Assessment (SESA) Report (2015)
4. Environment and Social Assessment (ESIA) Report (2015)
5. Environment and Social Management Plan (ESMP) (2015)
6. Resettlement Action Plan (RAP) (2015)
7. Business Plan (2015)
8. Development of Financial Model and Investigation of Financial Options

Note that the Commission is also in the process of mobilizing funds to help in updating these studies (USD 2.5 million)

1. Gender Mainstreaming Strategy and Action Plan (GEMSAP) (2022)
2. Communication and Stakeholder Engagement Strategy (COSES) (2022)
3. Resource Mobilisation Strategy (RMS) (2023)



Availability of financial, technical, market, regulatory, and environmental/social analysis (2015)

- Updating studies: **USD 2.5 million Grant**
- Technical Assistance -Grant range (eg. USD 1.2 million)
- Investment **USD 851.1 million** through PPP/Soft Loan
- Revenue: **USD 66.1 million** annually from power
- Economic Internal Rate of Return (EIRR): 11.28%; Payback Period: Depends on investment conditions, DSCR: 1.6x, NPV: USD 78.77 million.
- Funding already raised (amount & sources): **Not yet**
- Economic Benefit Cost Ratio (EBCR): 1.13 (discount rate 10%)
- The project's EIA, SESA, RAP (2015) identifies both adverse and beneficial impacts across physical, biological, and socio-economic environments.

Financial aspects

- **Tariff** **US\$ 0.08/kwh**
- **Power units** **686,000,000 kwh/year**
- **Annual revenues** **US\$ 66.1 million**
- **EIRR** **11.28%**
- **Economic Benefit Cost Ratio 1.13 (Discount rate 10%)**

Financing arrangements and timelines

S/N	Components	Description	Cost (USD)	Time Frame	Source of Funds
1	Component One	Dam Construction	446,300,000	2025-2027	Private sector
2	Component Two	Main Hydropower Plant	240,500,000	2026-2030	Private sector
3	Component Three	Rural Electrification (transmission lines)	90,000,000	2028-2030	Private sector
		Administrative Costs	74,300,000	2025-2030	Private sector
		TOTAL	851,100,000		



Required financing

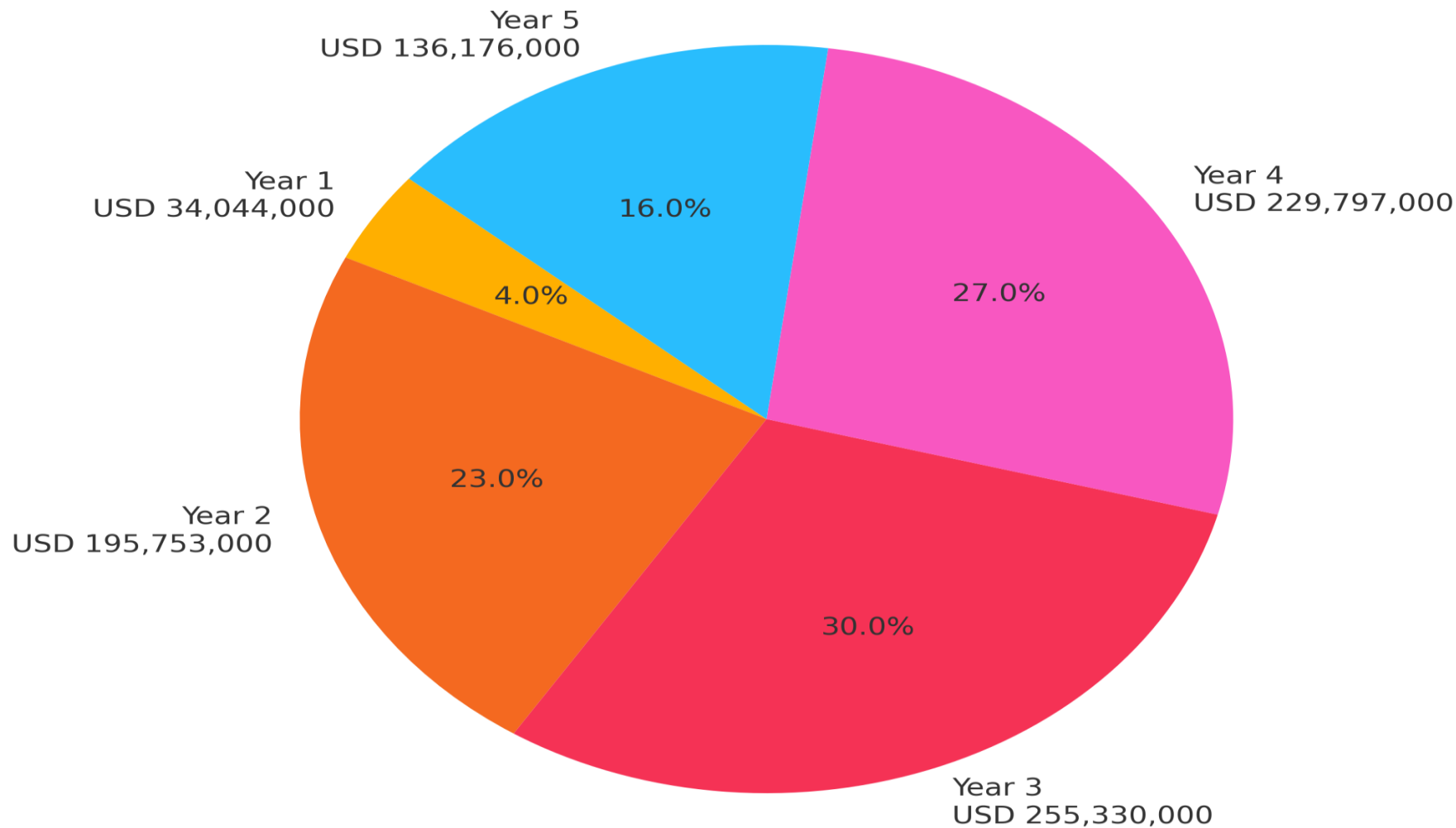
Budget breakdown

S/N	ITEM	TOTAL PRICE (USD)
1.	Civil Works	395,243,149.66
2.	Equipment Main HPP	218,927,568.22
3.	Equipment Small Hydropower Station (SHPS)	10,097,045.42
	TOTAL DIRECT CONSTRUCTION COSTS	624,267,763.30
4.	Contingency for Civil works, underground structures -15%	18,125,137.28
5.	Contingency for Civil works, surface structures- 12%	32,929,068.14
6.	Contingency for Equipment Main HPP- 5%	10,946,378.41
7.	Contingency of Equipment Small HPS-5%	504,852.27
8.	Environmental Mitigation Costs according to ESMP	4,799,480.00
9.	Social Mitigation Costs according to RAP	803,600.00
10.	Engineering Costs -8%	49,941,421.06
11.	Administration Costs- 3%	18,728,032.90
	GRAND TOTAL CONSTRUCTION COSTS	761,045,733.36
	Updating feasibility study, E&S safeguards	2,500,000



Disbursement Schedule of Funds During Construction

Construction Costs Distribution (Total: USD 851,100,000)



Resettlement (as of Nov 2014)

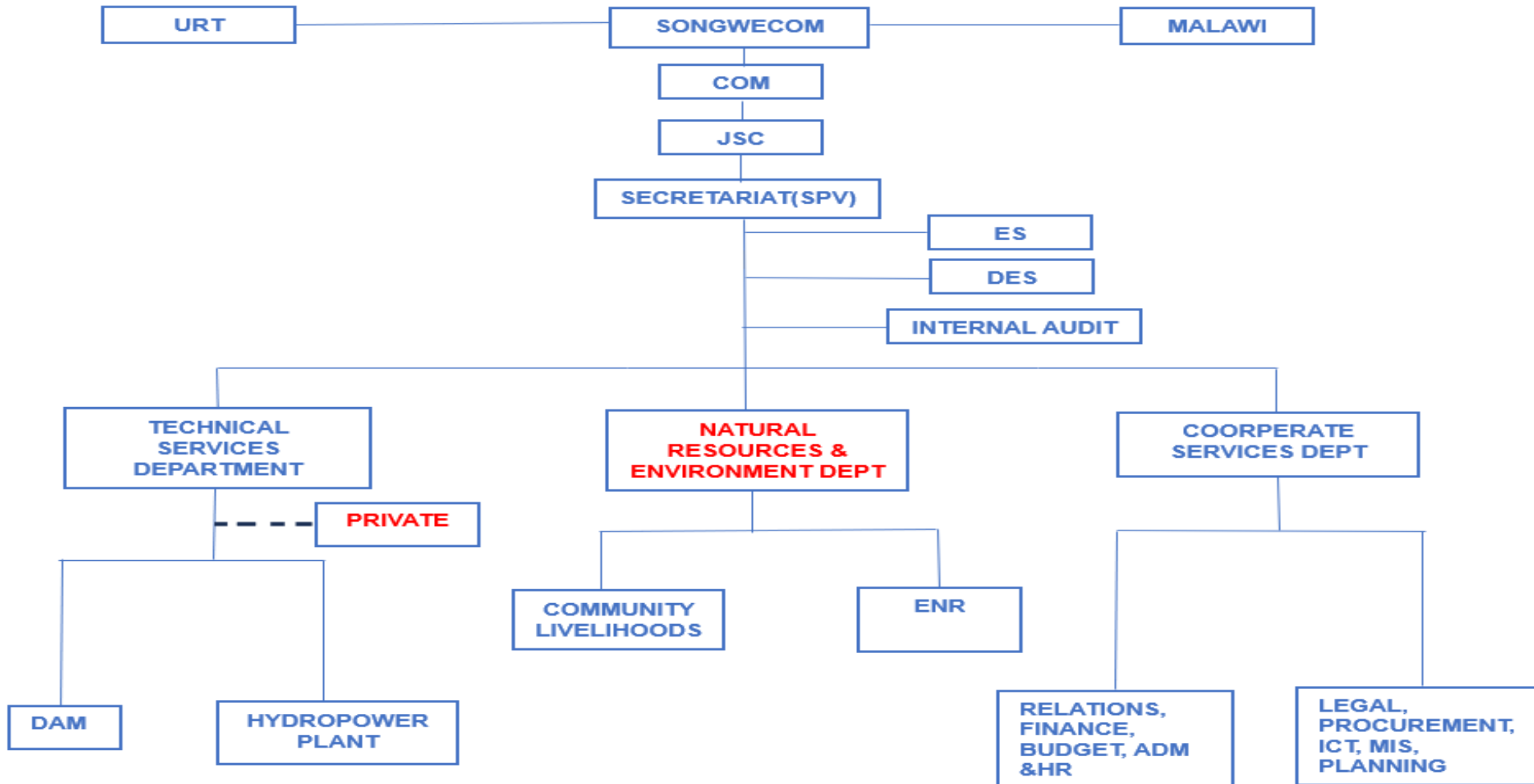
US\$ 803,600

(Malawi: 43.51%

URT: 56.49%)

- Assets compensation (71%)
- Assistance support (14%)
- Livelihood measures (8%)
- Contingencies (7%)

Implementation Structure



Way forward/roadmap

To advance to the implementation phase, the following steps are required:

- **Updating Feasibility Studies and Environmental Assessments**
- **Finalize Bilateral agreement**
- **Develop Power Purchase Agreements (PPA)**
- **Decide on a financing investor**
- **Appointing a Transaction Advisor**
- **Formal procurement process**
- **Ensure full government involvement in all Contracts**

Roadmap for the implementation

- Construction to run for a duration of **5yrs** (2026-2031), 50years lifetime.





THANK YOU FOR YOUR ATTENTION

