Project Title: Sustainable Catchment Management through Enhanced Environmental Flow Assessment and Implementation for the protection of the Western Indian Ocean from land-based sources and activities in Tanzania (EFLOWS)

7th WIOSAP PROJECT STEERING COMMITTEE
DARES SALAAM, TANZANIA
29TH JANUARY 2025

Name of IP: Sokoine University of Agriculture (SUA) &
National Environment Management Council (NEMC)

Why the Project

- **Objective:**

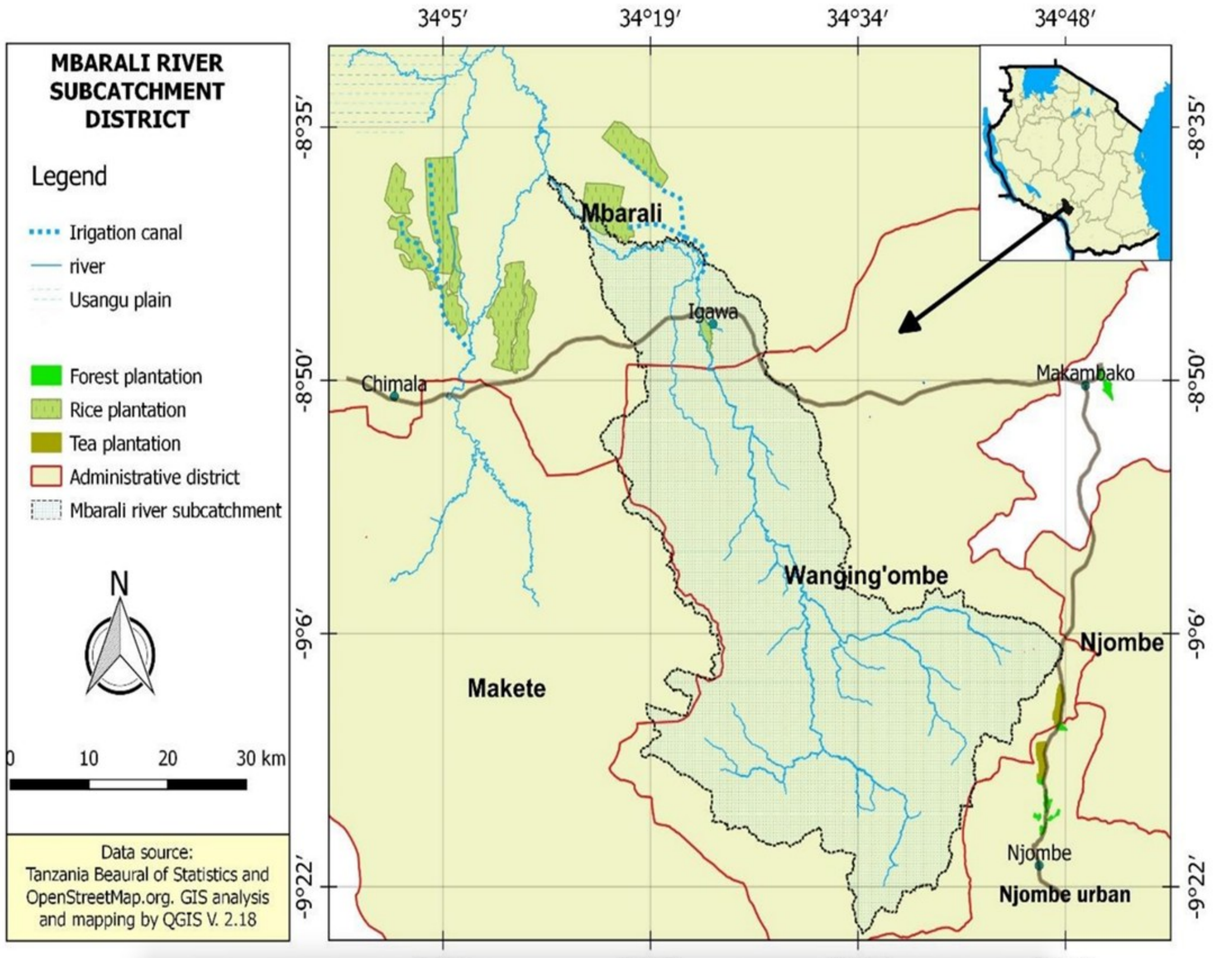
Overall Objective

- To reduce impacts/stress from land-based sources and activities and sustainably manage critical coastal-riverine ecosystems through Environmental Flow Assessment and implementation with the support of partnerships at national and regional levels.

Specific Objectives

- To enhance capacity for Environmental Flow Assessment and restoration for sustainable water flows.
- To conduct Environmental Flow Assessments in pilot river catchments to guide sustainable management of water flows.
- Implementation of recommended flows for sustainable water resources management.

- **Where:**



Partners:

- **VPO - Coordination**
- **Ministry of Water, Rufiji Basin Water Board – *provision of hydro-climatic data, monitoring and technical backstopping***
- **Ministry of Natural Resources and Tourism – TFS, TAFORI, etc.) – *Technical backstopping***
- **Ministry of Agriculture – conservation agriculture, CSA**
- **PO-RALG – *on ground implementation***
- **Communities (Villages, Schools, WUA) - *On-ground project implementation***

Key Achievements

Objectives	Achievements
Capacity building of water and natural resources managers on Environmental Flows Assessment (EFA)	***Built capacity on EFLOWS to various stakeholder using several means.***
	▪ Created a project Blog **https://eflows-tz.blogspot.com/.** ▪ Produced an EFlows documentary https://www.sua.ac.tz/news/documentary-eflows-research-project-progress ▪ Conducted several multi-stakeholder engagement meetings at different levels ▪ Presented the project results and **engaged policy and decision makers** during the **Maji (Water) Scientific Conference (4th - 5th April, 2022)**, (*Topic: **Exploring Nature based Solutions for Improved Environmental Flows in the Mbarali River Catchment, Tanzania***) ▪ Presented and engaged policy and decision makers, private sector during the **5th National Multi-sectoral Forum on Water Resources Management** and Development, held at the BoT on18th June 2022. ▪ Conducted a **Regional Training on EFlows to WIO Countries**

Key Achievements

Some of the stakeholders whom were consulted

MAJI SCIENTIFIC CONFERENCE

NMSF ON WRM&D

Regional Training

Key Achievements

Objectives	Achievements
Conducting EFA in pilot rivers and documenting the process (various reports, site selection, catchment, baseline description report, wet and dry season sampling report, experts starter reports, Environmental flows report and production of an environmental flows workshop report)	i. **EFA in pilot rivers conducted, process documented and flow recommendations** (**various reports - site selection, catchment baseline description report, wet and dry season sampling report, experts' starter reports, EF report, Eflow recommendation workshop report produced**). ii. **Water abstraction point mapping** and **hot spot erosion mapping**.

Key Achievements

Objectives	Achievements
iii) Evaluating and application of incentive-based decision support tools/ technologies to promote restoration activities and the implementation of the recommended environmental flows	• **Multi-stakeholder engagement** for water sources mapping & characterization and **co-identification of restoration options**. ➢Profiled and prioritized **Nature based solution (NbS)** - *enhance sustainable management and use of **natural features** and processes to tackle socio-environmental challenges.* ○ *Using local knowledge and contemporary vegetation ecology **Established with WUAs - water friendly natural tree nurseries in the mid and upper catchments*** with ***45,000 seedlings.*** All were planted at water sources. ✓*Ficus sur* (Mdzombe), *Syzigium guinense* (Mvengi), *Asenia abysinica* (Mdobole), *Salix subserrata* (Msusuliani), *Rauvolfia caffra* (Mvelevele) ○**Supporting income and livelihoods activities** *Beekeeping, home gardens* ○Law enforcement Environmental awareness, demarcation and zoning (*go and no go zones*) with installed concrete pre-casted beacons.

Key Achievements

Tree Nursery established

Environmental education to Primary and Secondary School students

Beehives fabrication

Tree planting – MBUMTILU WUA

Key Lessons Learnt

- Adaptive management is key to successful implementation of EFlows.
- People will have more buy-in to the project when they are assured of the direct benefits from the project (i.e. beekeeping, home gardening)
- WUAs' empowerment is critical for the sustainability of restoration actions through NbS
- EFlows is an important **tool** for addressing the **source-to-sea (S2S)** aspects
- The WIOSAP EFlows demo project provides a foundation for the co-design and co-implementation of NbS towards addressing the **S2S** challenges.
- IWRM is fundamental to disentangling silo planning and enhancing integrated approaches in addressing the linkages along the **source-to-sea continuum of land, water, delta, estuary, coast, nearshore and ocean ecosystems**.
- A landscape/catchment or basin scale is vital to addressing the S2S challenges.

Project Sustainability

- The project has **increased institutional and human resources capacity** at the district level and sectoral levels through EFA awareness.
- The project revealed potential for building a **social enterprise or business case** particularly at up-scaling phase.
- The Rufiji Basin Water Board (RBWB) is determined to continue supporting the initiated activities by the EFLOWS demo project, including the **conservation of water sources** as well as the **water-friendly tree nurseries**. Promised to provide **transport** and **equipment** to assist WUAs in carrying out their water resource management tasks in the catchment.
- The **REGROW project** expressed its commitment to enhance its cooperation with the WUAs in developing water-friendly tree nurseries and in supporting management of water sources. They provided **motorcycles** to ease WUAs' transport in reaching the various areas under their jurisdiction.
- The **local government authorities**, particularly the **Mbarali District Council** has expressed its commitment to **allocate some resources from its annual budget to support the WUAs activities** and in **scaling up the EFLOWS findings**.
- To enhance WUAs income, the District Councils have committed to **buy the raised water-friendly and fruit seedling** as part of the national tree planting campaigns.

Acknowledgements

- UNEP, Nairobi Convention and GEF for their support
- VPO-DoE for the coordination
- Ministry of Water, Rufiji Basin Water Board for hydro-climatic data, monitoring and backstopping
- MNRT, TFS, TAFORI for technical backstopping
- LGAs, WUAs for on ground project implementation

Thank you