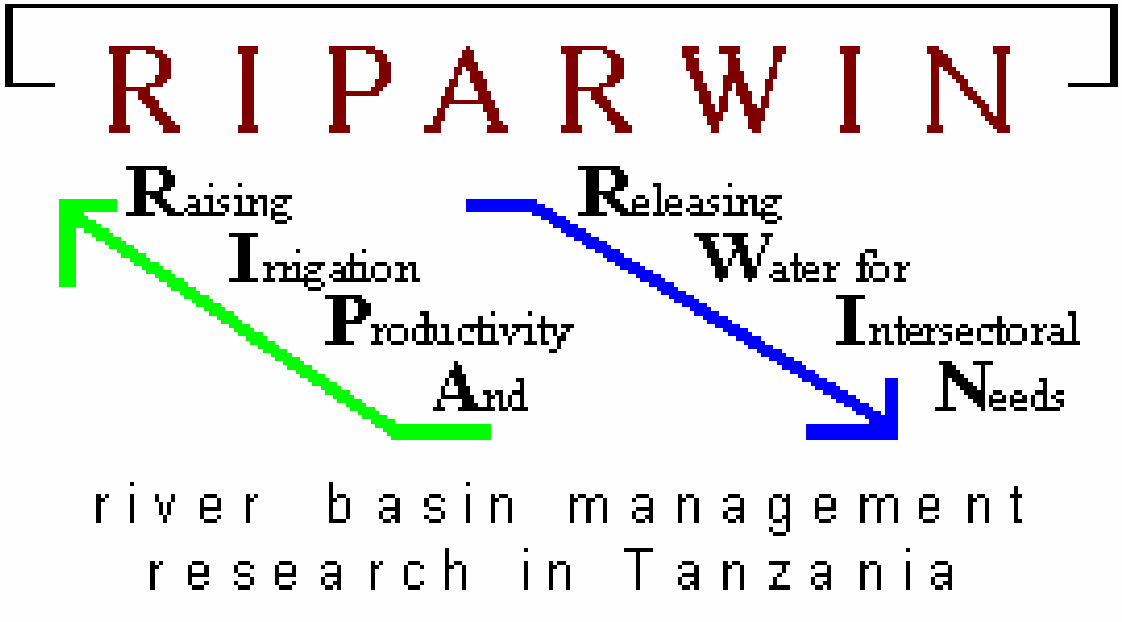
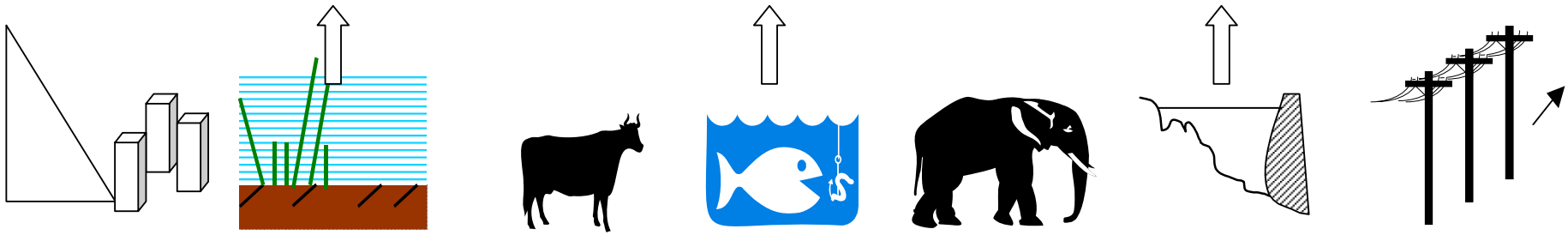


What is RIPARWIN?

- Study of River Basin Management
- A DFID-Funded (KAR) Research Project
- Implemented by the Overseas Development Group (ODG), University of East Anglia, Uk; Soil-Water Management Research Group (SWMRG), Sokoine University of Agriculture, Tanzania; and the International Water Management Institute (IWMI), South Africa Office.

The Sectors



Slopes & rainfed maize	**Domestic users;** e.g. cooking,	**Irrigated agriculture**; rice with evaporation	**Livestock** keepers; watering and grazing on seasonal/ permanent wetlands	**Usangu wetland;** fisheries; livelihoods	**Ruaha National Park**; fish, river ecology; wildlife	**Mtera/Kidatu HEP stations;** power generation; evaporation	Power to urban centres; industry; lighting,
	Minor needs	Water savings required here	Minor needs	To give water here		To give water here	

RIPARWIN: PURPOSE

- Benefits for poor people, the environment and other river basin stakeholders increased by application of new knowledge to the **enhancement of productivity of irrigation and transference of water to meet other needs**

RIPARWIN: OUTPUTS

FIVE Outputs dealing with:

- **Enhance understanding of:**

1. Water management, competition, use and irrigation productivity
2. Water demands of other sectors(e.g.environment, domestic and livestock) and users (net and gross)

3 (a) Means and potential to transfer water between uses and sectors

3 (b) Impacts arising from water transfer away from irrigation, particularly on poor people

4. River basin characteristics, allocations means, risks and typologies through production of a river Basin Management Decision-Aide

5. Enhance capacity in irrigation and water management within a multi-sectoral environment

Conditions to be studied

- Water use and types
- Irrigation Types and Management
- Climatic and seasonal variability
- Social differentiation
- Sub Basin Variability

Multiple Studies Approach

- Productivity of Water in Irrigation Systems
- Evaluation of Livelihood and Economic Benefits of water Utilization in the Great Ruaha
- Hydrological Analysis of the Great Ruaha
- Assessment of Hydrological and Production Roles of Wetlands in Usangu Plains
- Institutional framework for Water Management in Agriculture and Other Uses in Usangu Plains
- Evaluation of Institutional and Legal Framework for Water Resource Management in the River Basin
- Development of Ruaha Basin Decision Aide

Major Research Questions

Productivity of Water in Irrigation Systems

1.1 What are the current uses and productivity of water?

1.2 Is there a potential for improving productivity?

1.3 What is the potential for real saving of water and what are the broad linkages?

1.4 What is the current management of the different systems?

1.5 What are the means for saving water?

Evaluation of Livelihood and Economic Benefits of water Utilization in the Great Ruaha

2.1 How can River Basin Managers compare water demands and allocate it between competing sectors?

2.2 What are the economic benefits from the current uses?

2.3 What are the livelihood strategies?

3.1 What are the impacts of water saving and transfer on social economic and livelihood strategies?

Hydrological Analysis of the Great Ruaha

2.1 What are the water needs of other sectors/users (Current & Future)?

3.1 What are the options for meeting current & future demands?

3.2 What are the risks associated with the options?

3.3 What are the means of implementing the options?

4.1 What is the water resource base (including ground water)?

4.2 What are the dynamics of the hydrology?

Assessment of Hydrological and Production Roles of Wetlands in Usangu Plains

2.1 What is the extent of intermediate wetlands?

2.2 What are the necessary minimum flows and routing requirements for the environment?

2.3 What are the multiple uses and benefits?

3.1 What are the means for maintaining minimum flows ?

4.1 What is the history of wetlands development ?

4.2 What are the hydrological relations of wetlands especially with groundwater?

Institutional Framework for Water Management in Agriculture and Other Uses in Usangu Plains

1.1 What are the local institutional arrangements for sharing water in water subcatchments (strengths, weaknesses, coping mechanisms?

2.1 Are these local users listened to, incorporated, and involved promptly in the present formal RBWM imperatives?

3.1 What is the institutional gap and what can be done to fill the gap?

3.2 What would be the appropriate interventions ?

3.3 What are the socio-technical issues of importance?

4.1 What are the appropriate farmers level institutions and formation process?

Evaluation of Institutional and Legal Framework for River Basin Management in the River Basin

2.1 What institutions focuses on the interest of poor people ?

2.2 Are these institutions adequate?

3.1 How do institutions react to changes, impacts and risks?

3.2 What are the feedback mechanisms into sustainable institutionalization?

3.3 How do users allocate water between uses and sectors?

4.1 What are the river basin institutional relations ?

4.2 What would be the appropriate design of institutional arrangements ?

Development of Ruaha Basin Decision Aide

- Source of Information for multiple topics studied in the RIPARWIN Project.
- Based on Hydrological Model-UBM, with Impact and Water Management Modules.
- Goes beyond UBM and involves economic, environmental and social implications.
- User oriented.