



Integrated Water Resources Management:

Achievements, Challenges & Lessons Learnt in UNWMZ

Barnabas Mubangizi

Directorate of Water Resources Management

Ministry of Water and Environment

Water and environment resources

- Water and environment resources are key to development and impact all aspects of life and ecosystems on the planet
- Effective water and environment management is a catalyst for the larger process of development and is required to reach SDGs
- Poor water and environment management is contributing to disease, malnutrition, reduced economic growth, social instability, conflict, and environmental disaster.

Water and environment resources do not follow administrative boundaries:

Establishment of Water Management Zones

Albert Water Management Zone (AWMZ) : Fort Portal

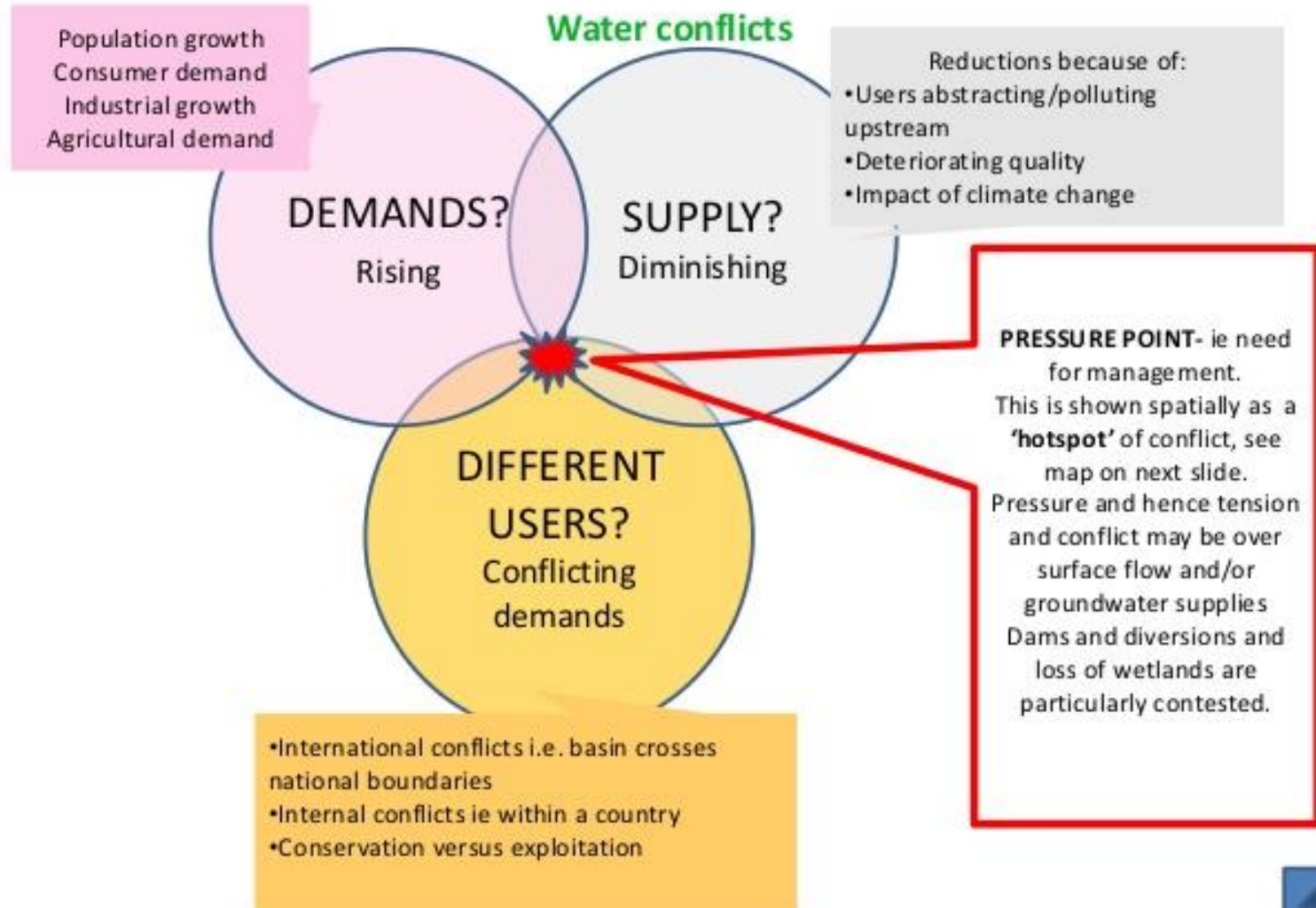
Kyoga Water Management Zone (KWMZ) : Mbale

Upper Nile Water Management Zone (UNWMZ) : Lira

Victoria Water Management Zone (VWMZ) : Mbarara



Key Water Resources Challenges in Uganda



MONDAY MARCH 6 2017

Water shortage hits Gulu Municipality

Dry taps. Residents queue up at a private water source in Pece Division, Gulu Municipality on Sunday. PHOTO BY JULIUS OCUNGI



Oitino Dam; NWSC source for Gulu

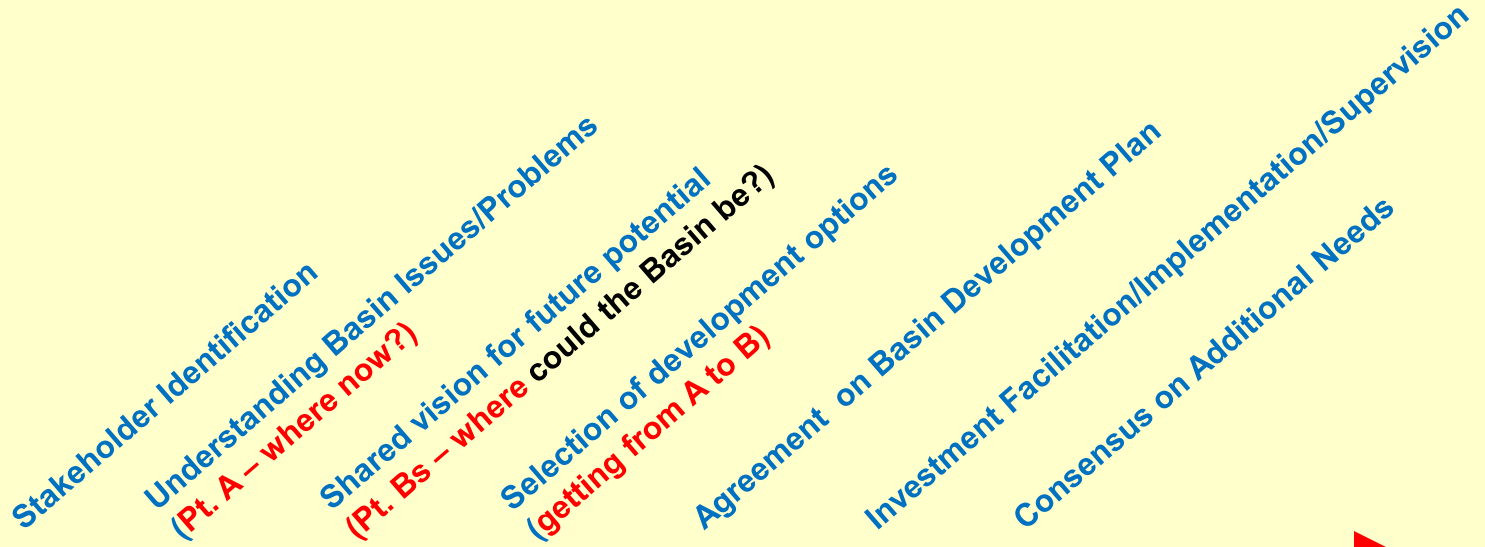
**18 Confirmed Dead, 450 Buried
After Bududa Landslide**
Posted on June 26, 2012



Preparation of a Catchment Management Plan

Shared decision making supported by facts and sound analysis

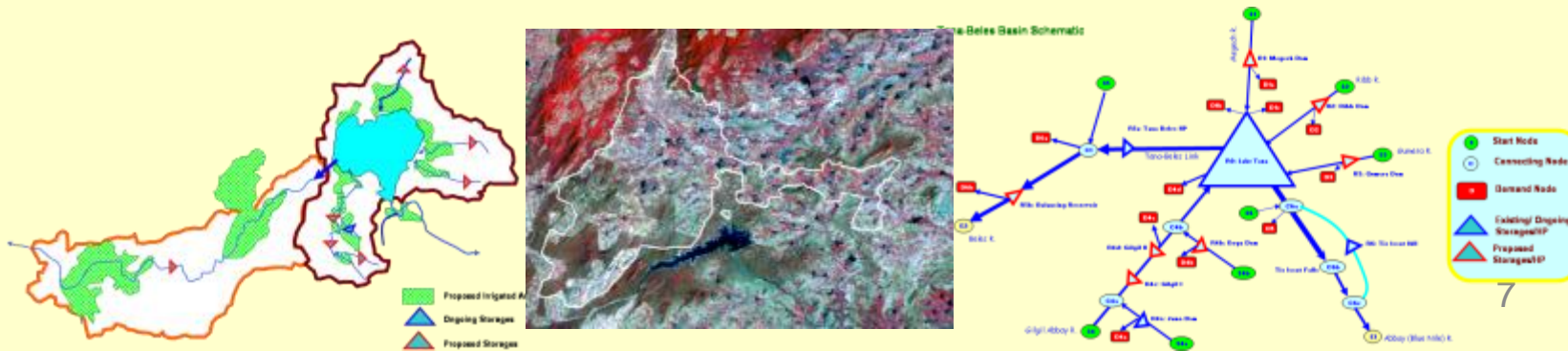
Decisions →



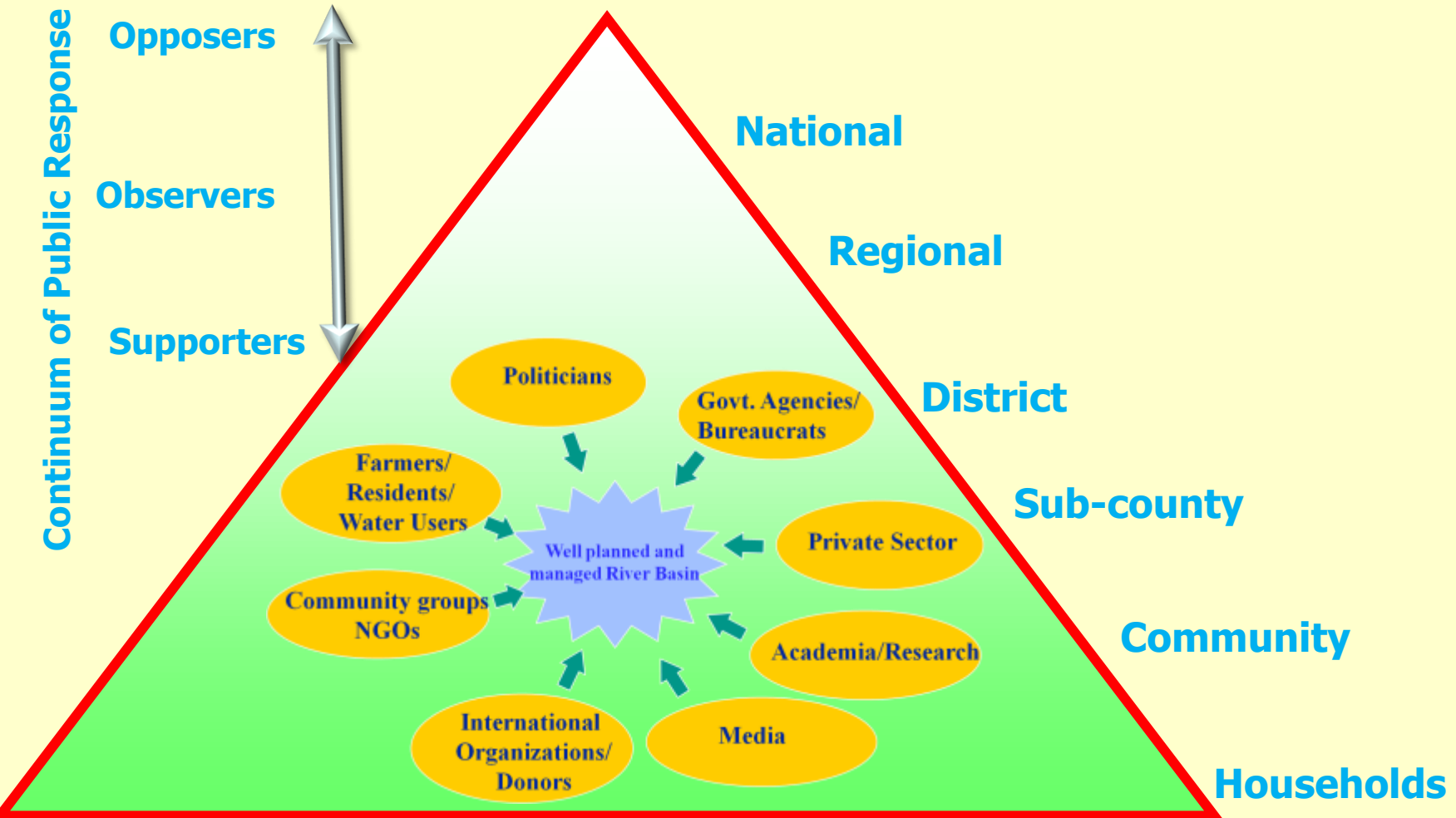
Participation
 Consultation →



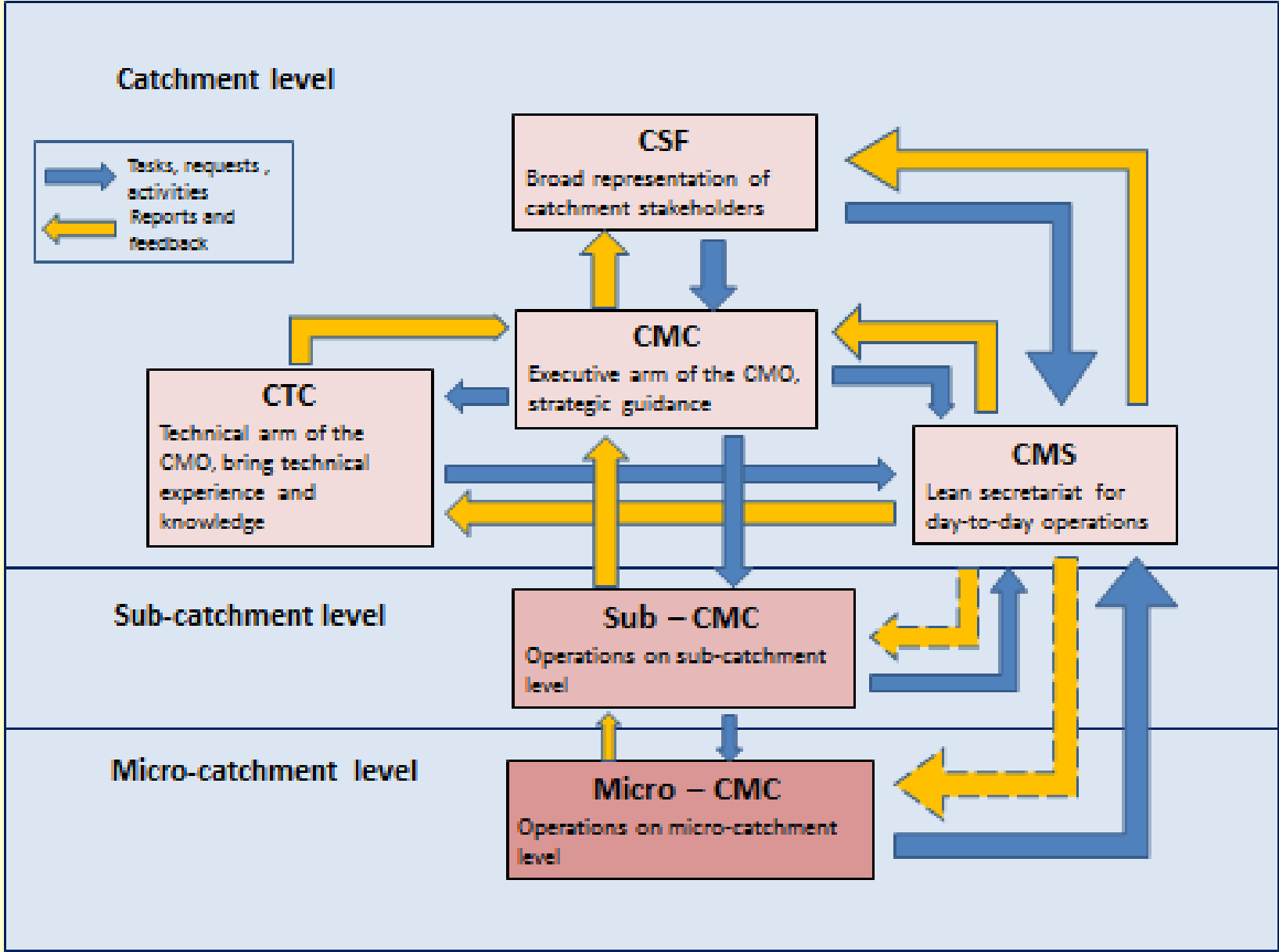
Analysis →



WATER AND ENVIRONMENT STAKEHOLDERS ARE MANY...



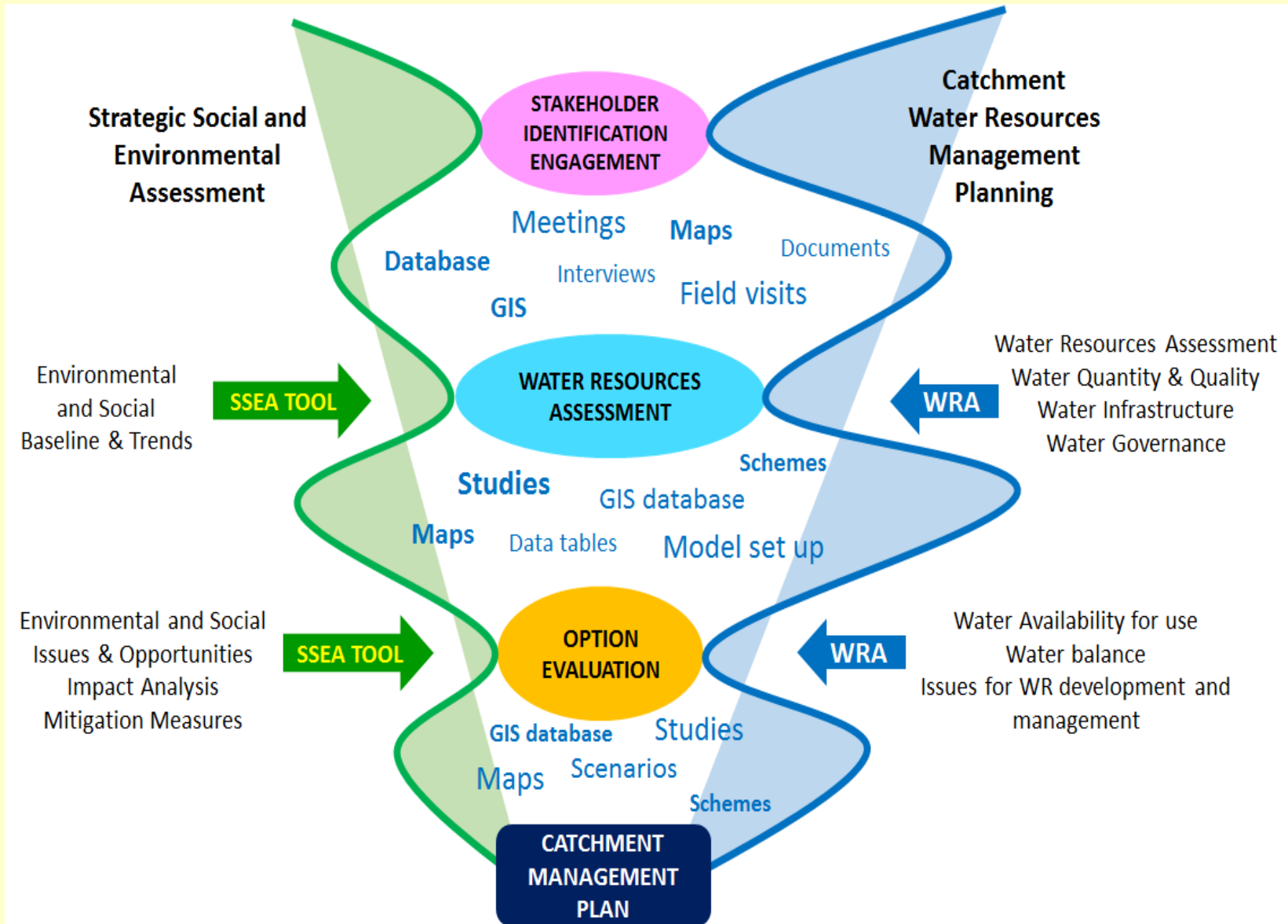
Catchment Management Organizations





Elected members of the Albert Nile CMO

Catchment Management Planning Process



Importance Catchment Management Plans

- Provide framework for implementing water and related resources interventions.
- Provide an opportunity to stakeholders to have coordinated planning and implementation of water and related interventions in a catchment
- Various stakeholder **(both public and private)** can pick components of the CMP that are in line with their objectives and mandates and develop them into implementable action plans.
- CMPs address a lot of issues that stakeholders in catchment initially have to deal with in isolation

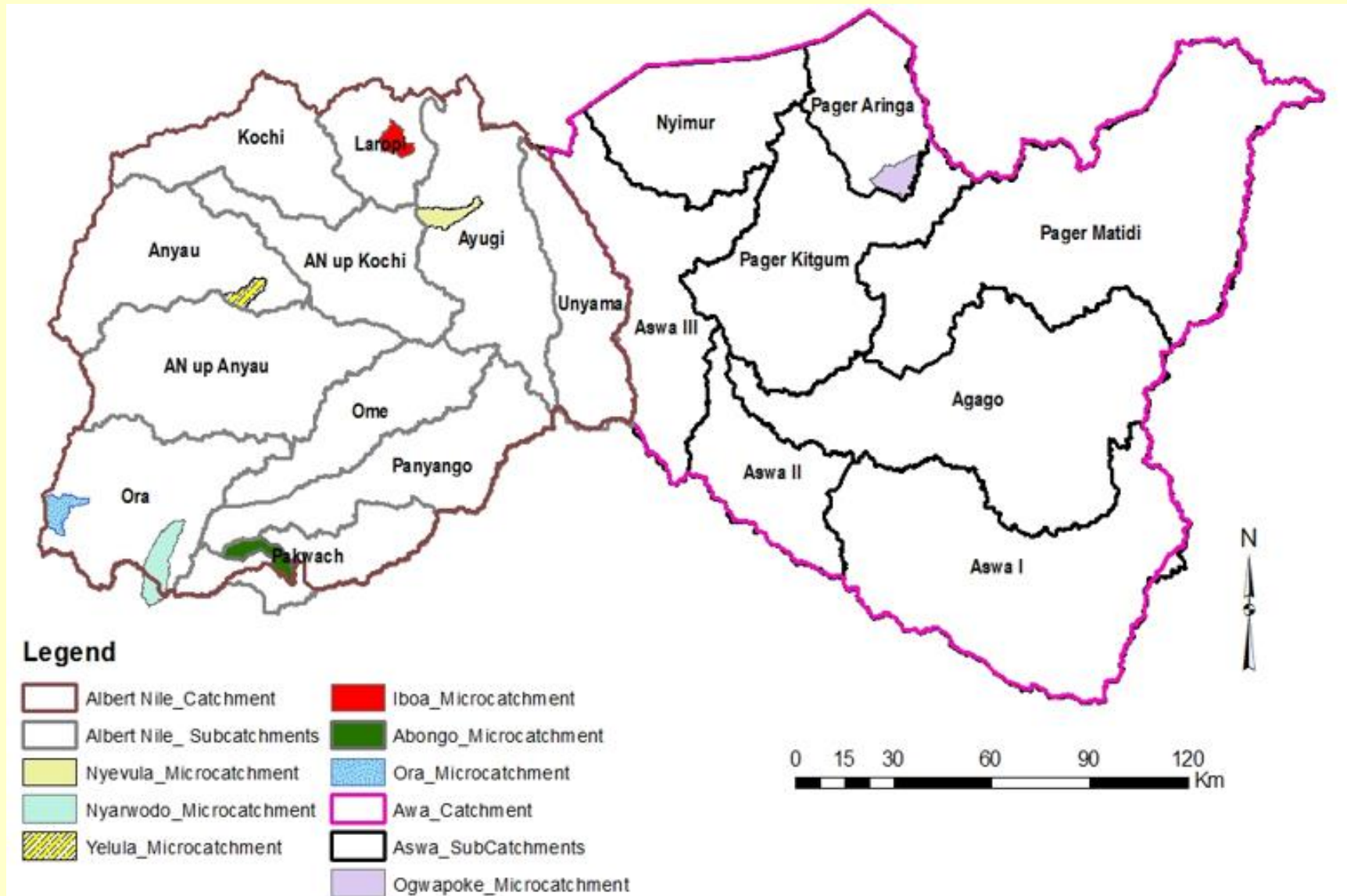
Catchments where catchment based planning and implementation is ongoing



Interventions under NURI

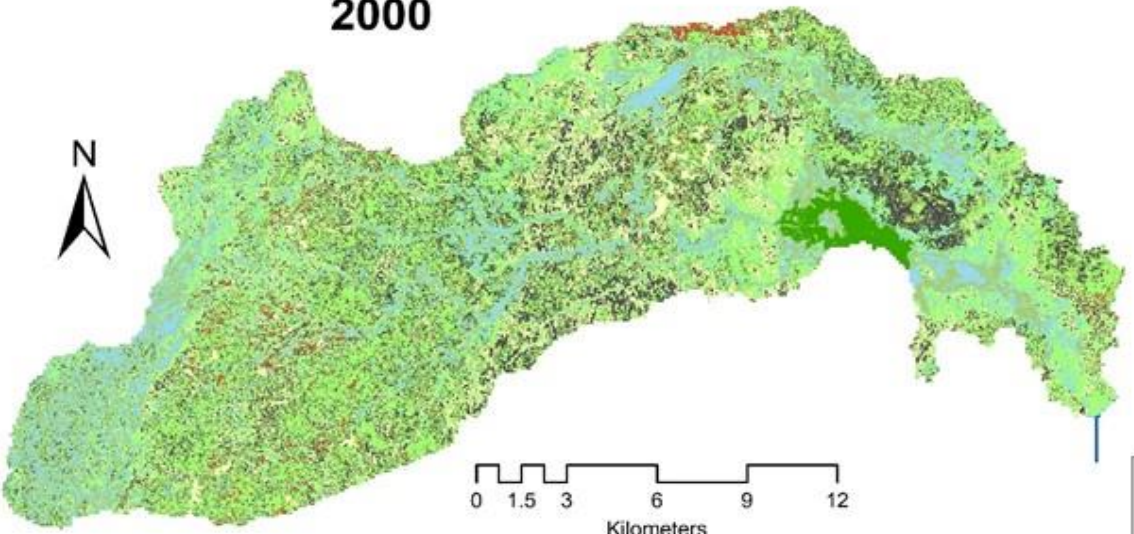
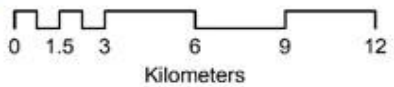
- “Improved Climate Change Resilience in Northern Uganda through Water Resources Management, including for refugees and host communities” project implemented by DWRM with support from DANIDA.
- Implemented in 6 micro catchments in Albert Nile catchment

WRM Intervention areas under NURI



Case: Abong-Ayila Micro catchment outlook

2000

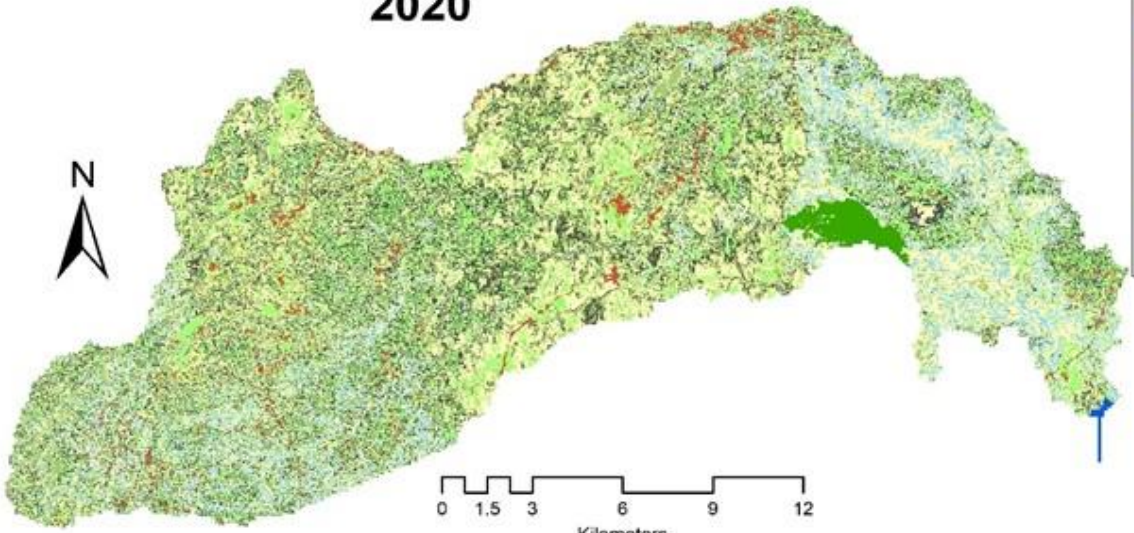
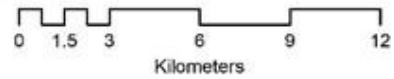


Legend

Landuse/cover types

- Builtup areas
- Farming
- Forest
- Grassland
- Open water
- Thickets&shrubs
- Wetland
- Woodland

2020



LULC 2000 -2020	Area(sqkm)	%	Area(Sqkm)	%
	2000		2020	
Built-up areas	6.2	1.8	8.3	2.5
Farming	38.9	11.5	125.1	36.9
Forest	4.6	1.3	4.2	1.2
Grassland	131.9	38.9	76.3	22.5
Open water	0.2	0.04	0.4	0.1
Thickets&shrubs	58.6	17.3	65.2	19.3
Wetland	44.4	13.1	29.1	8.6
Woodland	54.1	16.0	30.1	8.9
	338.7		338.7	

Ayila Abong issues



Erussi hills



Alwi gullies

Ayila Abong Issues



Sand pylon on the river on the bank of the river in Juloka parish ready for transport



Effect of sand mining on the River a long Juloka Parish

Issues in Nyarwodho



latrins at the edge of River Nyachara,
in Riverview Cell, Nebbi Municipality



Cultivation up to the river banks

Ayila Abong Issues



Conclusions and future prospects

- ▶ Catchment (watershed) based integrated planning, development and management of water and related resources in Uganda is taking root but still needs support of various stakeholders in all forms
- ▶ Substantial amount of funding is needed to implement catchment based approaches to protection of water, environment and other natural resources.
- ▶ Innovative funding sources, options and mechanisms for restoration of water catchments continue to be explored.
- ▶ Priority is being given to protection of environment and natural resources through catchment restoration while improving people's livelihood

AFOYO