



# **WATER AND CLIMATE CHANGE: CASE FOR LVB**

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## **Good news to the water family**

“COP 22 marked a turning point for the water family: WATER was recognized as a priority when addressing climate change mitigation and adaptation”



# PRESENTATION OUTLINE

- ✓ INTRODUCTION
- ✓ LVBC/LVB
- ✓ CLIMATE CHANGE IMPACTS IN LVB
- ✓ STRATEGIC INTERVENTIONS
- ✓ LESSONS LEARNT
- ✓ RECOMMENDATIONS



# INTRODUCTION

- Global warming is a certainty --- affecting water cycle & water resources
- IPCC (5<sup>th</sup> Assessment Report cites 4 sectors most affected – Water, Ecosystems, Health & Crop yields)
- Water most vulnerable (in all forms - solid – liquid – vapor)
- **Aquatic ecosystems** – most affected by CC impacts;
- Estimated 40% of the LVB is aquatic (population of 44.9 million)
- Water key driving factor for agriculture, transport, power, wildlife etc;
- Apart from providing water resources, LV has a climate modulating effects in the Basin
- Water – Climate Change nexus: critical to socio-economic development of the LVB/EA



# LVBC

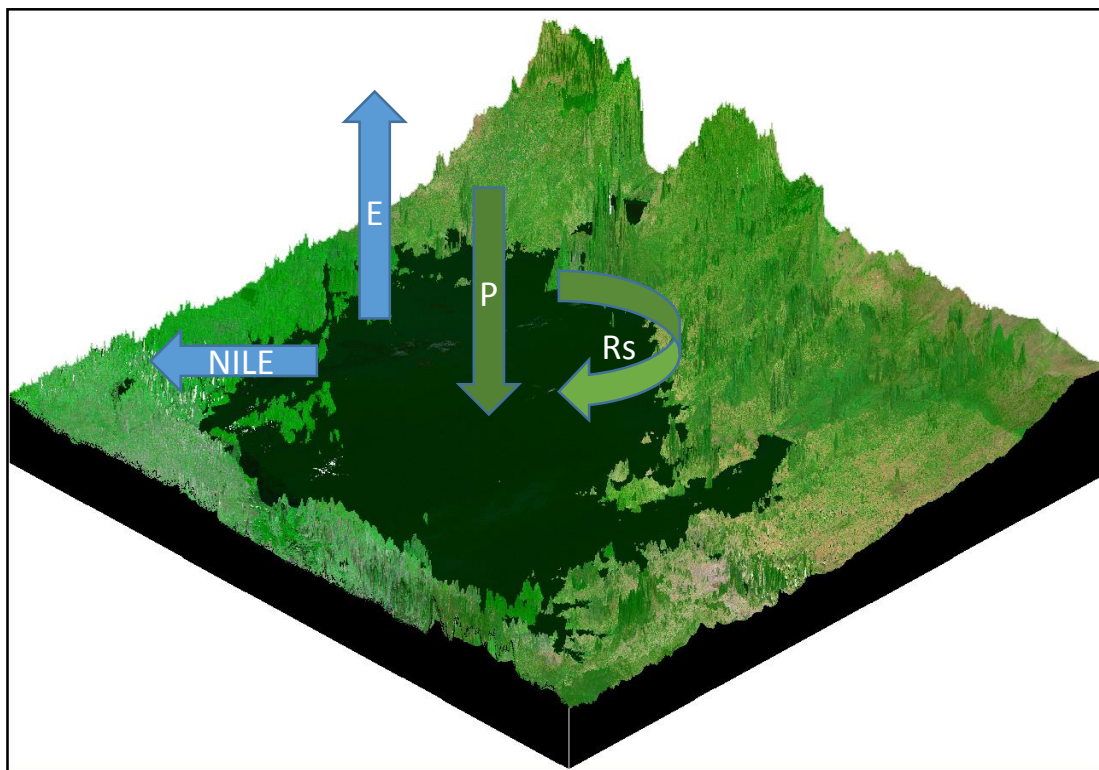
- LVBC (LRBO) a specialized institution of the EAC (REC)
- Established under Article 114 of EAC Treaty (1999)
- Governed by Protocol for Sustainable Development of LVB (2003)
- Key attribute of the Protocol: institutional + legal framework for management & development of TBVR/transboundary ecosystems

## Other policy guiding documents include

- Shared Vision & Strategy Framework for Development of LVB: Vision + KPA + Strategic Framework (2005)
- 5 year - LVBC Strategic Plan;
- 5 year - EAC Development Strategy; and
- SECOM & COM Decisions & Directives



# LVB - WATER BALANCE & OTHER HYDROLOGICAL INFORMATION



	Lake Victoria
Catchment area (km <sup>2</sup> )	180,950
Lake area ((km <sup>2</sup> )	68,800.00
Maximum depth (m)	79.00
Mean depth (m)	40.00
Volume - V- (km <sup>3</sup> )	2,760.00
Outflow (%)	24.10
Inflow (%)	18.10
Precipitation (%)	81.90
Evaporation (%)	75.90
Flushing time (years)	140.00
Resident time (years)	23.00



# CLIMATE CHANGE IMPACTS IN LVB

- Changes in land use (unsustainable/conflicts)
- Water quantity and quality (direct effects on water resources including fisheries);
- Health problems;
- Maritime transport;
- Reduced energy production
- Invasive weeds (aquatic/terrestrial)
- Erratic flow regimes/fluctuating water levels





# STRATEGIC INTERVENTIONS

- **Watershed Management**
- ❖ Catchments rehabilitation
- ❖ Wetlands management
- ❖ Water quality and quantity Monitoring (rivers/lake wide)
- ❖ **MoU for management of transboundary water resources**





# STRATEGIC INTERVENTIONS IN LVB

## ❑ Water supply and sanitation initiatives

- ✓ Water supply infrastructure
- ✓ Construction of waste water purification facilities
- ✓ Storm water management
- ✓ management of water pollution sources (point and diffuse sources)  
Development and management of disposal facilities (FSTP)
- ✓ Capacity building







# STRATEGIC INTERVENTIONS

## □ Policies, Strategies and Studies (instruments for transboundary Water Resources Management/Ecosystems)

- ✓ Climate change policy (EAC)
- ✓ Water resources management bill
- ✓ Water release and abstraction policy;
- ✓ Regional harmonized water effluent standards;
- ✓ Sustainable Land Management Strategy;
- ✓ Water Allocation Plan;
- ✓ Water flow and demand studies;
- ✓ Identification and mapping of ecologically sensitive areas studies



# LESSONS LEARNT

- ✓ To address CC risks/impacts – requires a holistic/collaborative approach;
- ✓ Though LVB has a huge water body - access to clean water is still a mirage (aggravated by CC impacts)
- ✓ Most water projects do not consider CC factors during formulation;
- ✓ Misses out the social component;
- ✓ Do not link the water infrastructure to watershed component
- ✓ LRBO embedded with a REC better placed to succeed in their mandates;
- ✓ Little interest in research yet critical to programming and policy formulation



# RECOMMENDATIONS

- Promote inter-sectoral collaboration and integrated policies/programs while dealing with sectors most vulnerable to climate change;
- Deliberated efforts to adopt and implement the principles of good governance and IWRM (Call for Rabat recommendations)
- L/RBO should strive to be within RECs;
- All water infrastructure project should consider possible CC effects – should have CC targets;
- Establish partnerships (for instance with Water for Africa initiatives) for capacity building on water issues;
- Invest in research – especially on water – climate change nexus



# WAS THIS BY DEFAULT OR DESIGN?

