The Status of Lake Basin Management in Kenya and the Prospect for East African Collaboration on ILBM

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Kenya's Lakes in the African Context

- •Africa is endowed with both natural and man-made lakes and some are transboundary.
- •The total number of lakes in the WORLDLAKE database for the continent is 677 (UNEP 2006).
- •The largest and best-known lakes are in the eastern and southern Africa region, and are collectively termed the "African Great Lakes".
- •The large man-made lakes include Lake Volta in west Africa, Lake Kariba in southern Africa and Lake Nasser in northern Africa.



Hydrological variability – Seasonal to Millennial Scale





 Unprecedented rise in levels of Kenya rift lakes since 2010 – socio-economic and ecological impacts

Avery (2012) *Report African Studies Center, Oxford* Tiercelin et al. (1987) *Bull. Centr. Rech. Expl.-Prod. Elf-Aquitaine* Åse et al. (1986) *Forsk. Naturgeogr. Inst. Stockholm Univ*

Threats to Lake Nakuru





- UNESCO World Heritage Site (2011)
- Threats are focused to the town area north of the lake





Threats to Transboundary Lake Victoria

Environmental

Ecological

Ecosystem Goods and Services

Economic

Social

Governance



- Up to 1960, clean, clear, health; Today, murky, smelly, choking with algae.
- Poor wastewater treatment systems and land-based practices
- Loss of fish biodiversity related in part to species introductions (e.g. nile perch vs. decline in haplochromines) but nile perch fishery is \$\$\$\$!





plumes (Future Harvest/ICRAF)

Water hyacinth blocks Kisumu Ferry Terminal Intpedcintler usgs.gov/waterhyacinth/

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Status of ILBM in Kenya

- 1) The multi-stakeholder Lake Nakuru ILBM platform launched in November 2011, comprising of:
 - National Government line Ministries and departments. (WRMA, KFS, KWS, NEMA)
 - County Government of Nakuru (hosts the Secretariat)
 - Civil Society Organizations (IGOs, NGOs, CBOs, WRUAs, CFAs, Village Environment Committes).
 - Corporations & Companies
 - Universities (Egerton) and Schools
 - The Private Sector Associations (Nakuru Business Association, Kenya Association of Manufacturers, Chamber of Commerce)
- 2) Kenya Lake Briefs updated for selected lakes
- 3) National ILBM Strategy incorporated into draft National Water Policy 2020
- 4) Ministry of Water & Sanitation and Irrigation, Ministry of Environment and Forestry, and other agencies involved in collaboration



ILEC and RCSE - Shiga University. 2012. "Primer: Development of ILBM Platform Process, Evolving Guidelines through Participatory Improvement", 26p. (Downloadable from ILEC website: http://www.ilec.or.jp.)

Prospects for ILBM Collaboration in East Africa and at Continental Scale

- Various regional bodies (e.g. AU, EAC, ECCAS, IGAD, AfDB, COMESA) have been involved in providing the guiding framework for national and transboundary resource development and management.
 - → The 2025 Africa Water Vision of the African Ministerial Council on Water (AMCOW) realize equitable and sustainable use and management of water resources to promote cooperation, security, social and economic development, and poverty eradication among member states.
 - → The Africa Water Facility (AWF) was established under AMCOW to mobilize resources to finance water resources development activities in Africa.
 - → The Science, Technology and Innovation Strategy for Africa 2024 (STISA 2024) notes that water is essential and has a cross-cutting contribution across the strategy's six priority areas
- National water and environment ministries incorporate into policy reforms and strategy documents elements of relevant regional (*e.g. EAC*), continental (*AU Agenda 2063*) and global agenda (*Sustainable Development Goals - SDGs*), with variable emphasis depending on country or regional needs.

Conclusions

- Lakes are highly sensitive to natural changes and anthropogenic activities
- Human activities in catchments and lakes adversely impact their ecosystem health and resource values.
- The problems facing each of the basins are multi-faceted, similar in drivers but varying only in the relative importance of the drivers
- Lakes are largely ignored in the IWBM and IRBM frameworks these should be integrated into an ILBM Platform Process
- ILBM offers opportunity for cross-sectoral and transboundary cooperation and citizen participation in management of lakes and their basins
- Long-term view (trans-generational) is important (slow lake response time, large natural effects on long timescales, uncertainties due to climate change and other potential drivers) 8