WaterNet short course
Financing of Water Infrastructure projects

Water sector regulation and organizational mandates in IWRM

Jaap Arntzen

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Structure of presentation

- Main IWRM tasks
- Current situation
- New developments
- TWM and OKACOM example

Main tasks of IWRM

- Water supply by WSPs and self-providers
- Building of water infrastructure (supply & demand)
- WRM: type of infrastructure, tariffs, water/wastewater, meeting SDGs, handling water scarcity and efficiency.
- Water demand management; loss reduction, unconventional water sources, water efficiency.
- Decentralised water resource management (e.g. catchment areas, communities)
- Participatory WRM involving all stakeholders

Current situation

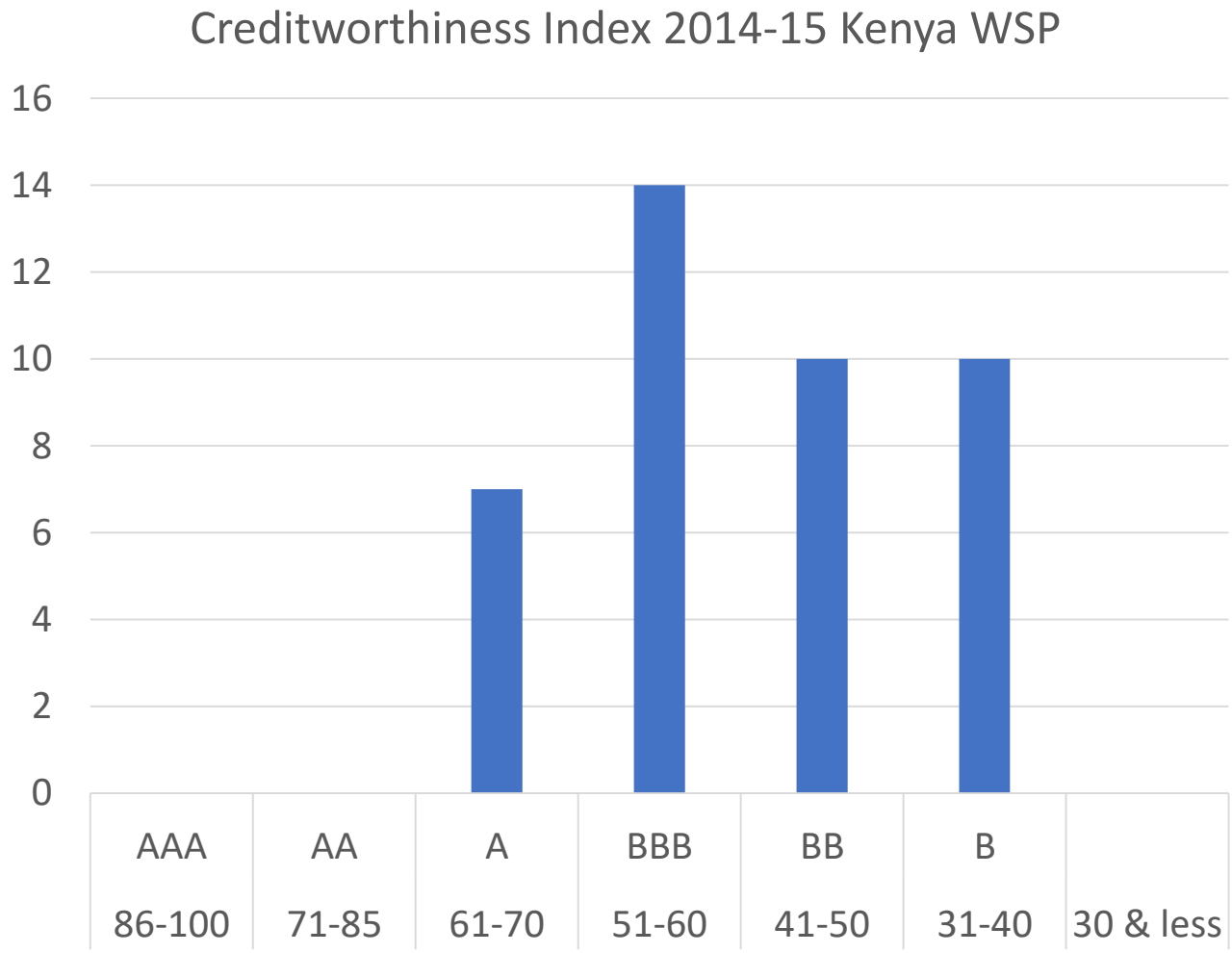
- Water sector is government dominated
- WSPs: high losses, low cost recovery, inefficient operations
- WRM focused on water supply augmentation without balancing demand & supply
- Water use inefficiencies
- Political interference (e.g. boards & tariffs)

Some key performance figures

- ESAWAS is the Eastern and Southern Africa Water and Sanitation regulators association: comparative analysis & benchmarking
- Kenya (2014-15; WASREB report)
  - NRW: 43%
  - 143 connections/ employee
  - Two third full cost recovery; 99% O&M cost recovery
  - 55% population coverage in urban & urbanizing areas.
- Zambia (2016; source: NWASCO report):
  - Non-revenue water (NRW) is 49% of abstracted water (benchmark 25%)
  - 107 connections/employee
  - 67% full cost recovery (O&M + deprecation/ financing costs); 92% of O&M cost recovery.

Creditworthiness Index Kenya for large utilities

- Developed by WASREB
- A low default risk
- BBB low default risk but susceptible to adverse conditions
- BB elevated vulnerability to default risk
- B material default risk is present



Source: WASREB report 2014-15 p. 46

Move towards

- Decentralised WRM through catchment area organisations
- Cooperation with transboundary water resource management
- Water sector reforms to make the sector more efficient & attractive for investors

Water sector reforms: common elements

- Pursued in many countries
- Better governance:
  - Separation of water supply from Water Resource Management
  - Water regulators (e.g. Zambia and Kenya) & benchmarking
  - Integration of fresh water supply and wastewater treatment
  - Growing private sector involvement
  - Decentralised WRM.
- Further elements to consider:
  - Cross-sectoral cooperation (e.g. energy, development planning)
  - Better information, data & access & benchmarking (GIS/RS, SEEA-WA, water Stats, annual reports of regulators)
  - Water as a human right – basic needs (SDG6)

National water sector documents

- Common documents
  - Water Act & regulations
  - Water Policy
  - IWRM-WE plans
  - Water Master Plans
  - Others: National Vision, national Development Plans
- Need to regularly up-date legislation & policies

TWM

- Guided by SADC Protcol on Shared watercourses (2001)
- Key organisations: RBOs, member states, ICPs, basin population
  - Role of RBOs: mostly coordination & advisory
  - MS: Take decisions
  - ICPs: Strong & and still indispensable support for RBOs
  - Basin population Consultations
- Documents: TDAs, SAP, IWRM plan, MSIOA

Example of the Cubango Okavango River basin

- Basin situation of CORB:
  - Three countries: Angola, Namibia & Botswana
  - Largely ‘natural basin conditions
  - No significant infrastructure
  - Abstraction estimated at around 100 Mm^3 p.a. as compared to a low flow of 3 100 Mm^3 in lower parts during droughts.
- Proposed development projects:
  - Mostly irrigation & hydropower. Some tourism & livelihood enhancement.
  - Abstraction may increase to 500-1 500 Mm^3 p.a.
  - Climate change needs to be included in the impact assessments of projects
- Institutions:
  - OKACOM is the River basin Organisation
  - OKACOM Member states with ministers & commissioners take the decisions
  - OKACOM secretariat: support and advice
  - OBSC with technical subcommittees: technical advise to decision makers
- Documents: 1994 OKACOM Agreement, 2011 TDA, SAP, 2017 MSIOA & agreed 2017 basin vision.

CORB OKACOM

BASIN VISION
Socially just, economically prosperous, and environmentally healthy development of the Cubango-Okavango River Basin.

- Financing of OKACOM:
  - Current:
    - Modest annual contributions of MS
    - Significant international funding
    - Sustainable?
  - Potential funding sources: basin fund, water abstraction levy/m^3, Delta tourism levy
- Countries agree:
  - Development is necessary to reduce poverty but within the Acceptable development Space.
  - Notification duty as per SADC Protocol on Shared Watercourses.
  - Initial water allocations should be modest to monitor the impact on the basin's ecosystem

Current Initiatives

- Implementation of the Strategic Action Plan (2017)
- Development of a Decision-Support System (2018)
- Pilot with the Water Allocation Strategy (2018)
- Expected water infrastructure & investments:
  - Irrigation schemes and possibly multipurpose dams
  - Tourism beyond the Delta
  - Development of joined infrastructure

Some literature

- ESAWAS Regulators Association (2016 and 2017). Regional Benchmarking of large water supply and sanitation utilities: 2014/2015 & 2015-16 reports.
- NWASCO (2017). Urban and Peri-Urban Water Supply and Sanitation Sector Report 2016.
- WASREB (2016). Performance Review of Kenya's Water Services Sector 2014 – 2015.
- Check RBO websites
- SADC (2001). Revised Protocol on Shared Watercourses.

THANK YOU

Contact details:
Dr. Jaap Arntzen
jarntzen@car.org.bw
info@car.org.bw
www.car.org