

Nairobi water resources and systems of accountability: the role of data and science

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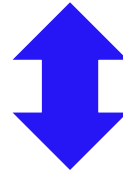
Freshwater Conservation and WASH in CoP

**Water
Resources**

**Systems
Accountability**

1. Water quality and quantity
2. Governance
3. Competing water users
4. Developments

Role of Data and Science



***Transforming water-scarce urban settlements
into water-secure settlements***

Water Quality and Quantity Issues in Nairobi County

Analyses of root causes of waters issues

ROOT CAUSES

Population pressure, Poverty and inequality, Bad governance, Financial Constraints, Inadequate knowledge/awareness

DIRECT CAUSES AND UNDERLYING SECTORS

Agriculture and Forestry, Urbanisation and tourism, Mining, Transport, Energy Production, and Aquaculture

ENVIRONMENTAL PROBLEMS

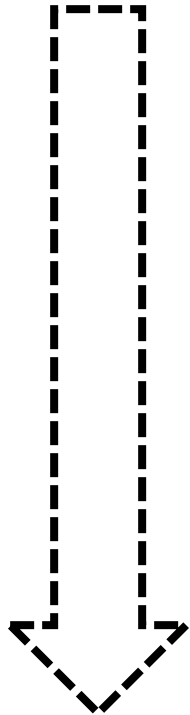
Deterioration of land, sediment/soil or water or air conditions due to presence of pollutants or pollution, quantity

ENVIRONMENTAL CONSEQUENCES

Effects of activities on biophysical environment: changes in species composition and mortality of organisms

SOCIO-ECONOMIC CONSEQUENCES

Effects of biophysical changes on socio-economic well-being on the human population e.g., health risks, increased poverty, reduced land value, reduced fisheries, reduced tourism and aesthetic values etc



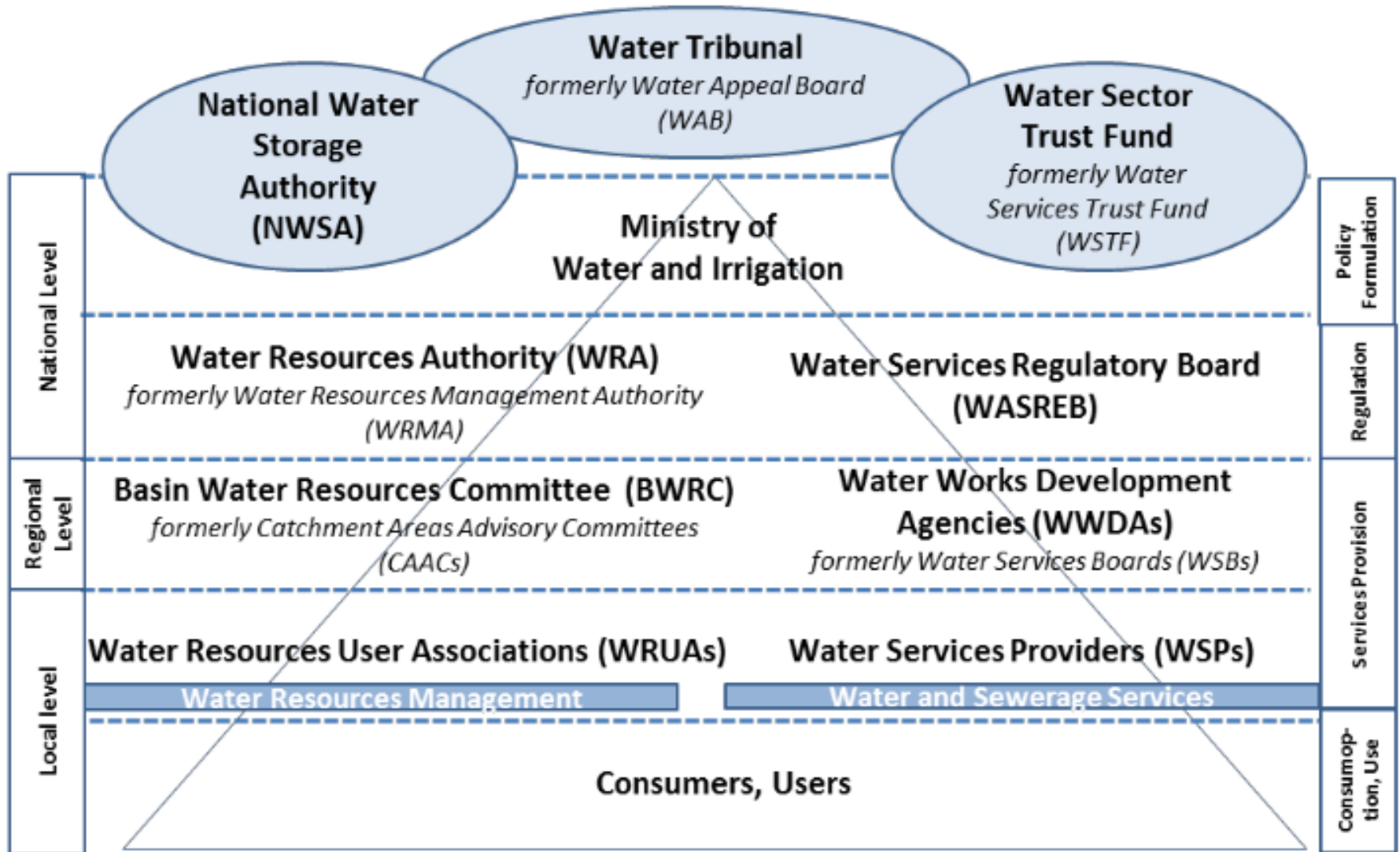
Water quality and quantity in NC

- 95% of water needs for the NC comes from Upper Tana River Water Watershed (Thika/Chania Aberdare Mountains).
- Bore holes
- Major water issues in the watershed:
 - Water quality: sedimentation
 - Quantity
- In the NC
 - Pollution: sedimentation, chemical, nutrients etc
 - Outstretched sewer systems



Credit: TNC Upper Tana-Nairobi Water Fund

Redefined roles and responsibilities under Kenya's 2016 Water Act



Role of science and data in sustainable management of water resources in NC and UT

- Water quality both in the watershed and NC.
- Hydrological regimes.
- Water allocations among different competing users to reduce water conflicts.
- Roles of major players to minimize conflicts/duplications, exploits opportunities and synergies.
- Carry out environmental services valuations, to support Upper Tana Nairobi Water Fund restoration and conservation initiatives.
- Support UT Aquatic Ecosystem Monitoring Programme (AEMP), through data compilation and sharing as well as identification of research gaps.
- Study success of environmental education and awareness.