

# **Strengthening Productive Wastewater Management and Improved Water Quality**

**Lead Conveners**

**International Water Management Institute (IWMI)**

**and**

**UNESCO**

## **Co-convenors**

GWP, AWF, AfDB, UNEP, WHO, UN-Habitat, WWAP, UNEP-GPA (GW21), UNESCO-IHP International Initiative on Water Quality (IIWQ), GWOPA, Michigan State University, FREEWAT, HOPE-Initiative, ECHN-IAH, IAH, USGS

**3.1 Current state of wastewater management and water quality in Africa**

**3.4 Emerging Pollutants in Water and Wasterwater: UNESCO Project Case studies in Africa**

**3.6 Wastewater related diseases, risks and intervention measures in African cities and the Global Water Pathogen Project**

# Key Issues

- Majority of wastewater is not treated – 90% untreated.
- Sewerage coverage is very low - most African cities have less than 10% sewerage coverage
- Solid waste also a major contributor to water pollution
- Many wastewater treatment works are dysfunctional
- Capacity to monitor water quality, in particular emerging pollutants is lacking
- This can negatively impact the potential to diversify water sources and consider reuse

# Recommendations

- Need to think more creatively about sanitation options (sewered vs. non-sewered).
- Need to consider a more integrated approach to urban water management
- Need to think more about resource recovery and reuse (RRR)
- Critical to develop appropriate regulatory frameworks and monitoring mechanisms, particularly for emerging pollutants and pathogens.

# Recommendations

- Important to promote a participatory approach to water quality management.
- Important to share best practice from across the continent and promote **peer-to-peer learning**
- Different partnerships and knowledge centers are central to all the above - Global Water Pathogen Project (GWPP)
- Youth can play a very important role in promoting and supporting responsible water & wastewater management.

**3.2 Defining National SDG targets and indicators on water quality and wastewater**

**3.3 Science and policy towards water quality and wastewater SDGs in Africa**

# Key Issues

- Focus was on the challenges involved in monitoring targets 6.2.1, 6.3.1, 6.3.2.
- Poor baseline information currently exists across Africa - major data gaps, outdated methods
- Complexities in managing and monitoring the entire sanitation delivery chain
- Difficulties in establishing and implementing mechanisms for setting discharge consent conditions and their implementation/enforcement.
- Inadequate institutional frameworks, capacities both HR and equipment for undertaking this task.



# Recommendations

- Indicators need to be ambitious but realistic, fitting within the national capacities.
- Need to create culture of enforcement of policy and regulations
- Need to develop model frameworks that are tried and tested in pilot countries
- Need to document and share best practice from across the region – peer to peer learning
- Capacity building at all levels is going to be vital to take this forward.

# Recommendations

- Knowledge hubs can play a significant role in promoting these frameworks and best practice.
- Resources should be mobilized from the international community to enable the major step change that is required to ensure effective management and monitoring of water quality.

- 3.5 Harnessing opportunity through Sustainable Wastewater Management**
- 3.7 Ecohydrology for sustainability and water security in Africa**
- 3.8 Benefits of IUWM on productive wastewater management and water quality in Africa**
- 3.9 Productive Wastewater Management and Improved Water Quality for SDG in Tanzania**
- 3.10 Fostering SDG8: Innovative Job Creation and Young Water Professionals Role**
- 3.11 Resource recovery and reuse and its positive impacts on sanitation provision in Africa**

# Key issues

- Need to move away from 19th Century approach to water and wastewater management
  - Linear systems – use once and discharge
  - Single quality water used for all purposes
  - Centralized designs that are energy intensive
- Need to realize that for the foreseeable future sewerage may not be realistic for many areas....
- Africa rapidly urbanizing and economies growing – great opportunities to develop sustainable solutions...learn from the mistakes of the west
- Window of opportunity is limited.....need to shape cities early on before they get locked!

# Recommendations

- Need to think more about about the productive use of water
- Look at all waters within the urban water cycle as good water.
- Manage all of the elements of water supply, storm-water, and wastewater as an integrated closed loop: one water.
- Think of waste as a resource – beneficiation (nutrients, energy, water)

# Recommendations

- Apply business thinking to waste management – Business models (IWMI catalogue is a major resource)
- Recognise that we are talking about mutually beneficial transactions – someones waste becomes another persons resource.
- Therefore we need diverse stakeholder platforms involving both public and private sectors.

THANK YOU