



Comprehensive Review of Water Sector Performance Monitoring Framework and Systems

*Ben Taylor (WaterAid); Joseph Kakunda
(MoWI), & Multidisciplinary Team*

1st March 2010



Outline

- **Background**
- **Review Objectives (from ToR)**
- **Expected Outputs (from ToR)**
- **Methodology**
- **Recommended Actions, Indicators, Definitions**
 - Water Supply – rural / urban
 - Household Sanitation
 - Institutional Water and Sanitation
 - Water Resource Management
- **Proposed framework for next MKUKUTA**

Background

- Sector-wide approach since 2006/7
- Includes sector-wide view of performance monitoring
- Some progress since 2007, still room for improvement
 - Apparent data discrepancies – e.g. surveys vs routine data
 - Some key indicators (like functionality of water points) not monitored
- Challenges recognised at JWSR 2008 and GBS Review 2008:
 - *MoWI will conduct a full review of the monitoring framework and systems to ensure consistency of definitions and accuracy of data (including data on sanitation, WRM and water supply services)*



Review Objectives (from ToR)

- To review the water sector monitoring framework incl. performance indicators to determine areas for improvement; and
- To develop a new Water Sector Monitoring Framework that suits stakeholder expectations



Expected Outputs (from ToR)

- A Simple Water Sector Monitoring Framework with clear output and outcome indicators for monitoring water resources management, water supply and sanitation sub-sectors
- Details of how this monitoring should be conducted, using data from which sources, collected by which agencies and how regularly
- Recommendations for any further work required to operationalise the proposed new monitoring framework



Methodology – approach

- Using a Multidisciplinary Team of Experts from various water sector and data management agencies; led by WaterAid;
- Comprehensive, sector-wide:
 - All sub-sectors, outputs and outcomes
 - All aspects of performance monitoring in the sector
 - Wide range of actors and data sources



Methodology – process

- Inception Meeting in July 2009
- Meetings with key stakeholders
 - MoWI, DPG, NBS, EWURA, PMORALG, MoHSW, MoEVT, CSOs (in August 2009)
- Draft report and framework for consultation at Joint Water Sector Review in early October 2009
- Final Report – end of October 2009



Recommendations – Water Supply

- Clearer separation between outputs and outcomes
 - End of using outputs data (waterpoints, household connections, piped networks, boreholes etc.) to estimate household access.
 - Data on infrastructure should be monitored through routine monitoring systems and data on access monitored through household surveys.



Recommendations – Rural WS

- Finalise the National Rural Water Supply Infrastructure Monitoring System through Country-wide Water Point Mapping (NRWSIMS)
- Ensure that routine monitoring data includes data on functionality

Framework – Rural WS

Outputs	Number of public improved waterpoints	NRWSIMS, LGAs
	Annual functionality rate	NRWSIMS, LGAs
	Number of COWSOs registered as legal entities	LGAs, MoWI
Outcomes	% Household using improved sources for drinking water	Household surveys (NBS)
	% Household using improved sources for drinking water and accessing within 30 minutes collection time	Household surveys (NBS)



Definitions – Rural WS

- **Improved source:** public or private piped supplies, boreholes, protected wells, protected springs and rainwater harvesting (JMP def)
- **Functionality rate:** % of water points fully functioning on a specific date
- **Annual functionality rate:** average functionality rate of four specific dates during the year



Recommendations – Urban WS

- Utilities should report to EWURA, where the utility database is based.
- Include Dar es Salaam in all reporting of urban WS
- Include small towns water supply data

Framework – UWS

Outputs	No. of water supply connections supplied by utilities in regional centres, including Dar es Salaam	EWURA Utility Database, data from utilities
	Average hours of supply to water supply connections	EWURA Utility Database, data from utilities
	No of public water kiosks supplied by regulated utilities in regional centres, including Dar es Salaam	EWURA Utility Database
	No. of water supply connections supplied by utilities in small towns	EWURA Utility Database, data from utilities
	No of public water kiosks supplied by regulated utilities in small towns	EWURA Utility Database, data from utilities
Outcomes	% Households using piped sources for drinking water	Household surveys (NBS)
	% Households using piped or protected sources for drinking water	Household surveys (NBS)
	% Households using improved sources for drinking water and accessing within 30 minutes collection time	Household surveys (NBS)



Definitions – UWS

- **Piped source:** Public or private piped supplies to a household, premise, yard, plot or community standpipe or public kiosk
- **Protected source:** Boreholes, protected wells, protected springs and rainwater harvesting
- **Water supply connection:** Piped connections into household, premise, yard or plot, supplied by a regulate utility
- Public standpipes providing water supplied by a regulated utility
- Average hours of supply: Average daily hours for which water is available to each household



Recommendations – Sanitation and Hygiene

- Monitor “improved” toilet facilities rather than “basic” latrines
- Adopt JMP definition of improved toilet facilities (flush / pour-flush / VIP / pit with slab)
- Start monitoring hygiene practices

Framework – Sanitation and Hygiene

Outputs	Number of households with sewerage connections	EWURA Utility Database
Outcomes	% rural households with access to an improved latrine	Household surveys (NBS)
	% urban households with access to an improved latrine	Household surveys (NBS)
	% rural households with access to a basic latrine	Household surveys (NBS)
	% urban households with access to a basic latrine	Household surveys (NBS)
	% households with a designated place for handwashing with soap and water present	Household surveys (NBS)



Definitions – sanitation and hygiene

- **Improved latrine:** Flush or pour-flush to piped sewer, septic tank or pit latrine; ventilated improved pit (VIP) latrine; pit latrine with slab; or composting toilet (JMP def)
- **Basic latrine:** An improved latrine or a traditional pit latrine (without slab)
- **Household sewerage connection:** Utility piped sewerage direct from the household



Recommendations – Institutional Water Supply and Sanitation

- Monitor water supply (in addition to sanitation) in schools
- Monitor water supply and sanitation at health facilities
- Liaise with MoEVT and MoHSW to ensure this data is routinely collected

Framework – Institutional WSS

Outputs	Number of school latrines (girls and boys)	EMIS (LGAs, MoEVT)
	Number of schools with on-site access to an improved water source	EMIS (LGAs, MoEVT)
	Number of health facilities with at least one client latrine	HMIS (LGAs, MoHSW)
	Number of health facilities with on-site access to an improved water source	HMIS (LGAs, MoHSW)
Outcomes	Number of pupils per improved latrine (girls and boys)	EMIS (LGAs, MoEVT)



Recommendations – WRM

- WRM sub-sector to engage more closely with the Water Sector Performance Monitoring Working Group

Framework – WRM

Outputs	number of water resource monitoring stations regularly producing reliable data	BWOs, MoWI
	number of applications for water rights received	BWOs, MoWI
	number of water rights issued	BWOs, MoWI
	number of BWOs fully operational and implementing an approved plan for integrated basin management.	BWOs, MoWI
Outcomes	Number of water use/quality conflicts identified and resolved	BWOs, MoWI
	% groundwater monitoring stations with declining water levels	BWOs, MoWI



Definitions – WRM

- **WR monitoring station:** River gauging stations, met stations, rainfall stations, sediment sampling stations, groundwater monitoring stations and water quality monitoring stations.
- **Fully operational BWO:** Fully staffed, equipped and has a functional monitoring network
- **Declining water levels:** Average water levels for the past 2 years are below the average for the previous 5 years.

Recommendations – Household surveys

- Strengthen the relationship between MoWI and NBS – e.g. MoWI to engage with the National Panel Survey
- Ensure that future household surveys include the same full set of survey questions and response options
- A standard set of questions is proposed (see *pages 41-42 – Annex 5*)



Stakeholder Observations

- It is a very interesting report, with many valuable insights for the sector; but both outputs and outcomes need frequent monitoring – annual or shorter periods;
- Significant efficiency improvements can help to achieve access more quickly;
- A strong coordination between MoWI and NBS for whatever data is to be collected (surveys or routine) is required; and
- The use of monitoring indicators that are beyond the realm of responsibility of MOWI may be difficult to collect (school sanitation and water supply in health facilities).



The Framework for the New MKUKUTA – Water Sector MKUKUTA Review Task Force

Based on the three studies:

- *The study on Women and children in Water Sector; by UNICEF*
- *The Comprehensive Review of the Water Sector Monitoring system; and*
- *The Water Sector Public Expenditure Review 2009, by World Bank*



Increase Levels of Monitoring Water Supply from 2 to 4:

- Rural Settlements
- Small towns (Township Authorities)
- Urban centers (Urban Authorities)
- Dar es Salaam.

And.



Introduce Water Resources Monitoring in the new MKUKUTA

- Water Resources includes Lakes, Rivers, Underground Aquifers, etc;
- Water sources include both natural and man made sources like bore holes, dams etc;
- **Introduce water resources monitoring as an economic growth driver through Integrated Water Resources Management coordinated by Water Basin Offices.**



Reasons for new levels

- Township Authorities need to form new level of monitoring because including them into the urban category can cause unnecessary downward trend to the data that have been nationally adopted.
- Dar es Salaam was proposed to continue being monitored alone because of its population; which nearly equals the urban population in other main Urban Authorities.



Proposed indicators for Rural Settlements (for new MKUKUTA)

■ Output:

- ☐ Number of improved water points installed (measured annually);
- ☐ % of functioning water points (measured quarterly);

■ Outcome:

- ☐ % Households using improved sources for domestic; and accessing within 30 minutes collection time.



Township Authorities, Urban Authorities and Dar es Salaam

■ Output:

- ☐ Number of water supply connections
- ☐ Number of water kiosks

■ Outcome;

- ☐ % Households using piped sources of water;
- ☐ % Households using other improved sources of water within 30 minutes collection time;



Proposed Indicators for WRM

■ Output

- ☐ Number of water resource Monitoring stations regularly producing reliable data;
- ☐ Number of dams rehabilitated and constructed;
- ☐ Number of measures taken to mitigate climate change effects;

■ Outcome

- ☐ % Volume of water used for economic activities
- ☐ % reduction of pollution levels in water bodies



Indicators for Institutional Facilities;

■ Output

- % of Schools and Health facilities with access to improved water sources as per standard service levels (annually)
- % of Schools and Health facilities with improved Sanitation facilities as per standard levels (annually)

■ Outcome:

- Number of pupils per improved latrine (girls & boys) (annually)



Proposed Indicators for Sanitation

■ Outputs:

- ☐ Number of households with sewerage connections (annually)

■ Outcomes:


- ☐ % Households using conventional sewer system;
- ☐ % of households with access to other improved sanitation facilities;

Proposed Targets for the next MKUKUTA

Percentage of the population that has access to clean and safe water from a piped or protected source (MOWI)	Baseline s Dec. 2009	Dec 2010	Dec 2011	Dec 2012	MKUK UTA Target 2015
Rural Settlements	61%	62%	63%	65%	74%
Small towns (Township Authorities)	50%	53%	54%	56%	57%
Urban centres (Urban Authorities)	84%	86%	88%	90%	95%
Dar es salaam	68%	69%	69%	70%	73%

Proposed Targets for Water Resources.

Objective	Indicator	Baseline	Target
Accurate Data for WRM are available	Number of hydrometric stations rehabilitate and constructed	83 in Dec 2009	350 by 2015
Water pollution control measures in place	Reduction of water pollution	12% Dec 2009	5% by 2015
Sufficient water volume is available for communities and mitigation of climate change	Number of dams rehabilitated to restore their design capacity volume	45 dams non functioning at Dec 2009	18 dams Rehabilitated and 27 dams constructed by 2015 (incl. 3 large dams)



Criteria for Water Sector Targets 2010 - 2015

- The budget envelope to achieve targets, taking in consideration change in unit costs, inflation, commitment of stakeholders, and population growth;
- The focus on economic growth;
- Water resources availability and visibility in the next national strategy; and
- Institutional strengthening and Capacity Building;
- MDGs by 2015 and the WSDP framework



Asanteni Sana;

- ❖ **KUMBUKENI SIKU ZOTE**
- ❖ *Water is Life;*
- ❖ *Sanitation is a Human Dignity.*