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WASH Fact Sheet FS/12/2021

SDG6+5 Review of Routine Monitoring for WASH: A Case Study from Tanzania

SUMMARY

Five years after the introduction of the Sustainable Development Goals (SDGs), and with the SDG midterm review approaching in 2022/23 marks a critical point for the WASH sector in Eastern and Southern Africa, with many countries not on-track to achieve the SDG 6 targets. UNICEF, as the lead agency of a multi-partner approach across 21 member states in Eastern and Southern Africa, identified that this point represents a moment for the WASH sector to take stock of progress towards SDG6, understand the gaps in our current knowledge on levels of access, and take course corrective actions to ensure that SDG6 is met in the remaining 10 years to 2030 vision.

As part of this broader SDG 6+5 review, UNICEF commissioned ITAD to explore and document the current state of SDG 6 monitoring across all countries in Eastern and Southern Africa. This included a rapid assessment, summarising the status of WASH monitoring systems in all countries; as well as a series of five case studies (of which this is a part) to provide a deeper analysis of the monitoring frameworks and systems, identify the enablers and barriers to strong monitoring systems, and to capture key learnings for the sector and region.

Tanzania was selected to further explore the coordination of monitoring in a strongly performing WASH sector, the sector-level routine monitoring systems, and the extent of localization of SDG 6.1 and 6.2 in monitoring systems.

1 Introduction

This case study built upon the findings of the SDG 6+5 rapid regional review of monitoring systems for SDG 6 undertaken in 21 countries across Eastern and Southern Africa in late 2020. Tanzania's selection was based on it having a strongly performing WASH sector, with well-developed routine monitoring systems with partial alignment to SDG 6 indicators in place for WASH sub-sectors, especially in rural areas.

The overall purpose of the case study was to support the WASH sector to strengthen monitoring for SDG 6 and to improve the tracking of progress against SDG 6. Therefore, the deep dive sought to gain a deeper understanding against three broad areas of the monitoring system presented below. These areas of enquiry were validated with the UNICEF Tanzania WASH team.

KEY FINDINGS

- *The different ministerial and sub-sectoral responsibilities for WASH are not well coordinated in respect of WASH monitoring at sector level. WASH monitoring is fragmented across the different sub-sectors and, despite roles and responsibilities being well defined, there are insufficient coordination mechanisms to ensure oversight of WASH monitoring at the sector level.*
- *The WASH data TWG strengthened SDG 6.1 and 6.2 monitoring, however, TWG and coordination mechanisms set up to manage implementation of the Water Sector Development Plan (WSDP), suffer from inactivity or irregular funding.*
- *There is no single reference point for national WASH sector monitoring plans or frameworks, and inconsistencies between sector and sub-sector strategies and monitoring plans exist.*
- *Sector financing has supported development of monitoring, but the move to earmarked funding removed incentives for wider sector dialogues.*
- *Routine monitoring systems managed by different ministries are being strengthened and partially aligned to the JMP, but outstanding issues such as the indicator alignment to national targets for monitoring SDG 6.1 and 6.2 are highlighted in this report. There is also existing data in monitoring systems which could be used, but is unavailable f*
- *or use in decision making, and tracking progress against national targets, due to remaining challenges with data availability and interoperability.*

KEY OPPORTUNITIES FOR IMPROVED DATA

Availability of improved data will:

- *Expand the role of the TWG for more effective coordination of WASH and enable ministers to monitor, harmonize and integrate sub-sector monitoring plans and workplans.*
- *Improve data flow and interoperability of existing data gathered by standalone sub-sector monitoring systems into national and sector level MIS to enhance decision making and improve reporting of different service levels for SDG 6.1 and 6.2.*
- *Take advantage of existing/upcoming processes to drive alignment with SDG 6 and create opportunities for better data; the new RUWASA MIS in development is an opportunity to strengthen and embed JMP indicators for SDG 6.1 and 6.2 into rural WASH monitoring.*
- *Ensure robust quality of NSMIS data collection, making sure indicator definitions, data collection tools and analysis is effective to report accurately against indicators.*

The major areas of enquiry were:

- **The enabling environment for WASH monitoring, examining institutional arrangements for WASH monitoring,** leadership and coordination mechanisms for monitoring. We also focused on **understanding the role of donor inputs in Tanzania** and to what extent this supported the development of monitoring systems.
- **Localization of the SDG 6 targets in the WASH sector** and the extent to which sector strategies support and embed SDG goals, responsibility and accountability for the delivery and tracking progress for SDG 6.
- **Mapping the routine monitoring systems** and localization of SDG 6 in routine monitoring systems, in terms of data alignment and availability for the JMP to track SDG progress **alignment with JMP indicators.** This included review of the sub-sector monitoring systems across the data value chain from data collection, analysis, and reporting where this was possible.

Data collection comprised of 11 key informant interviews (KIIs) with key sector stakeholders, including WASH line ministries, statistical and planning bodies, and key development partners (DPs). We reviewed reports, policy, and strategy documents for rural and urban WASH monitoring mentioned in section 2.1. In addition, the NSMIS system and data was reviewed. Preliminary findings were validated in a meeting with UNICEF and key stakeholders and synthesized in this report. Full details of key interviewees are in Annex 4 and a full bibliography/list of documentation is in Annex 5.

1.1 Limitations

Whilst we sought to conduct key informant interviews with all key stakeholders, we were unable to speak with the regulators of the WASH sector; RUWASA and EWURA. Scheduling interviews with key stakeholders from the MoW was also delayed. The scope of study was defined at a national level, meaning a full understanding at sub- national level and WASH monitoring implemented by LGAs and local communities has not been captured. This is a limitation especially in terms of understanding the extent to which SDG 6 is localized at all levels of political institutions.

Due to the legal position on data dissemination in Tanzania, there is limited opportunity to review WASH sector information held in MIS systems and datasets in Tanzania.

With the above in mind, this case study is structured in two parts. The first part presents the findings on the WASH monitoring landscape in Tanzania by describing the institutional arrangements including coordination mechanisms, and WASH policies and frameworks and the routine monitoring systems. Finally, this first part outlines the story of localization for the sector against SDG 6.1 and 6.2. The second part presents the main findings, recommendations, and opportunities for the sector.

2 WASH monitoring landscape in Tanzania

2.1 Institutional Arrangements for WASH Sector performance monitoring

Overall Sector Leadership for WASH Sector Monitoring and SDG 6

Figure 1 illustrates the relationships between various sector ministries. The Ministry of Finance is responsible for coordinating all SDGs, with support from the National Bureau of Statistics (NBS) as custodians for the SDG data management.

The MoW provide overall leadership of the Water sector, implementation of the WSDP II programme and monitoring of the Water Sector and hold the institutional responsibility for SDG 6 targets. Practically, the Department of Policy and Planning of the MoW are responsible for coordinating the integrated M&E system and monitoring plan.

The President's Office, Regional Administration and Local Government Tanzania (PO-RALG) coordinate performance monitoring at the sub-national level, as the central government body in charge of LGAs and councils. The PO-RALG manage the Local Government Authorities' (LGAs) budgets and finance and collaborate with both the MoH and MoW to centralize the WASH monitoring from districts. LGAs were previously mandated with responsibility for coordinating plans and funding WASH programming. This role is now taken up by RUWASA and most LGA staff have transferred to RUWASA.

Regulators

- The Energy and Water Utility Regulatory Authority (EWURA) reports directly to the MoW and regulates urban water and sanitation services provided by 26 Regional and 8 national project (urban water supply and sewerage

authorities) UWSSAs service providers. This includes the monitoring and reporting of water coverage, access and quality and other KPIs.

Sub-sector leadership for WASH monitoring

In practice, the implementation and associated M&E activities of WSDP II components is through the various sub-sector institutions, sub-divided into water supply services (urban and rural) and sanitation and hygiene services. Sub-sector leadership for WASH monitoring

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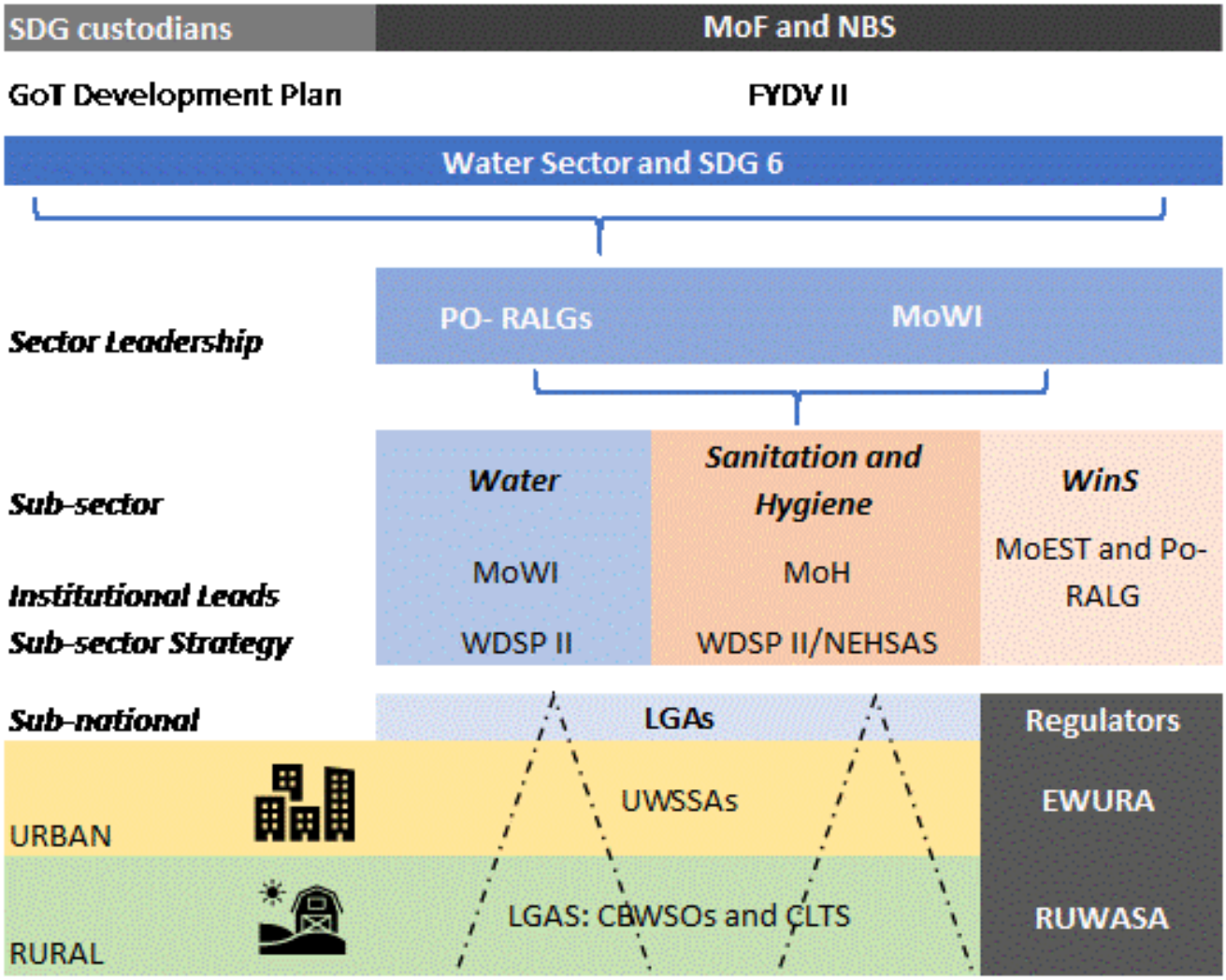
Water

- The MoW is responsible for the WRM and Rural and Urban Water Supply components of the WSDP II. They are also responsible for the monitoring of utilities through MAJIS reporting water supply, sewerage and wastewater in urban sub-sectors.
- The Rural Water Supply and Sanitation Agency (RUWASA), under the MoW, are mandated to centralize rural accountability for service delivery, including monitoring performance of community organizations in relation to WASH

Figure 1: Mapping of sector leadership and coordination (ITAD diagram)



and increase capacity of the LGAs. They also facilitate and coordinate the (Community Based Water Supply Organizations) COBWSOs.
- At a community level, the COBWSOs are formal community organizations responsible for water service provision, including monitoring performance and report to RUWASA. However, effective community management is limited by low coverage of COBWSOs in rural Tanzania, inadequate funding for their establishment and sustainment, and limited capacity for them to function effectively.

Sanitation and Hygiene

- The MoHCDGEC coordinate and lead M&E activities for sanitation and hygiene components under the WSDP II, including implementation of WASH in Healthcare facilities (WinHCFs) at all levels. They are responsible for data management (through the NSMIS) and capacity development to all levels for monitoring.
- The Ministry of Education and PO-RALG are responsible for implementation and monitoring School WASH (SWASH) projects, and the management of the Education Management Information System (EMIS) and Basic Education Management Information System (BEMIS).

At a village and community level, Community Led Total Sanitation committee manage the S&H agenda led by Village Executive Officer/village chair. The Community Led Total Sanitation committees establish community-based mechanisms to coordinate monitoring, review and evaluation of S&H within the village/*mtaa*. They collect data and update the household sanitation registers as per the agreed standards and report up the administration ladder to MoHCDGEC.

Capacity of sector institutions

It is not surprising that the sector capacity for WASH monitoring is still constrained by skills and financing gaps as well as a lack of monitoring tools. The majority of RUWASA staff have transferred from the LGAs, therefore there is a risk that the same capacity limitations for effective sector monitoring may exist as it will take time to ensure staff are sufficiently trained. The capacity of RUWASA to deliver intended structural reforms is dependent on adequate monitoring tools (see Section 2.4). RUWASA are establishing 'learning hubs' to test new tools and processes to strengthen RUWASA, in order to address capacity gaps. FCDO and USAID support capacity building of RUWASA, however, RUWASA will have to allocate funds to sustain these learning hubs. Other capacity building initiatives include the World Bank Monitoring and Evaluation training to regional basin water offices and urban utilities as part of a regional programme for water sector support Phase 2, and The World Bank rural WASH programme aims to build capacities of the sector institutions at all levels to monitor rural service delivery as part of results area 3.

2.2 Coordination of National WASH M&E

The coordination of national WASH monitoring and the involvement of stakeholders into monitoring is facilitated by several national planning committees, task forces and working groups (Table 1), however these meetings are irregular, and lack clear leadership. The systematic coordination of the sector monitoring, particularly for the integration and harmonization of SDG 6 targets and indicators alignment across different stakeholders and institutions, is complex and challenging. The coordination mechanisms in Table 1 focus on upward accountability and reporting, with fewer formal mechanisms for mutual accountability of the sector performance for empowered citizens and civil society.

Table 1: National WASH M&E coordination mechanisms

Coordination Mechanism		
Intra-sector M&E committee	MoW	Newly established, not yet functional
Sector M&E task force	MoW/Director of Policy and Planning	Newly established, not yet functional
Development Partners Group	UNICEF/USAID (chair and co-chair)	Functioning (although less active dialogue)
National Technical Working Groups for WSDP II components x5		Not clear if these groups meet actively
WASH data technical working group **1) Water Supply sub-group** **2) Sanitation and hygiene Sub-group**	Secretariat: NBS Chair: MoW	Last meeting in 2020
Joint Water Sector Reviews	MoW	Last report 2019
Water Sector Equity Report	TAWASNET	Active/Annual

Technical Working Groups

The WSDP II is coordinated through five thematic technical working groups (TWG), aligned to the five WSDP II components, as well as a separate WASH data TWG. The thematic groups do not meet routinely.

The WASH data TWG was established in 2018 as part of an SDG 6 localization/harmonization agenda – led by National Bureau of Statistics (NBS) and mandated to strengthen national WASH data systems, coordination and capacity for monitoring SDG 6.1 and 6.2. The working group have identified capacity gaps and needs for SDG monitoring, at all levels, and whilst specific activities to support these needs were identified, not all been followed up or implemented. As part of this, the on-going National Panel Survey (NPS) integrated a water quality testing module for capturing data on safely managed water, and sanitation was included.

The TWG is chaired by Ministries in rotation first by MoHCDGEC in 2019/2020, however a new chair has not been decided yet for 2021/2022.

Funding of the TWG is currently through UNICEF and support from the JMP – however the mainstreaming of funding the TWG through sub-sector ministries, departments and agencies into annual budgets is not yet confirmed. A funding gap may be a barrier to regular group meetings.

Sector monitoring: Integrated WASH M&E system coordination mechanisms

The draft integrated WASH M&E system aims to harmonize and coordinate a fragmented sub-sector monitoring landscape across different institutions. Led by MoW with coordination by the Director of Policy and Planning it updates institutional arrangements, and various coordination mechanisms presented in the M&E in the WSDP II 2015/16–2020/21 monitoring framework. The MoW and the Department of

Policy and Planning will be responsible overall for the implementation of the system, and integration of the system with existing sub-sector monitoring systems. The coordination of WASH monitoring will be driven by two news groups formed as part of the M&E system:

- Water Sector M&E committee, overseen by the MoW, with representatives from the MoH and MoE, and departments under the MoW, the intra-sector committee is supported by a sector M&E task force. It aims to regularly bring together stakeholders from different ministries, departments and agencies to review M&E reports developed by a sector M&E task force.
- Water Sector Task force will act as the secretariat of the M&E committee. The task force is comprised of institutions under the MoW and is responsible for preparing reports to the committee.

Sector Monitoring: Water Sector Basket Fund

The water sector is well-coordinated in terms of development partners. The Development Partners Group (DPG), a donor group, is currently co-chaired by UNICEF and USAID, and meets with government quarterly to discuss the progress of the WSDP II. Key WASH donors include UNICEF, World Bank, FCDO and USAID. USAID also provides significant support to the sector M&E system and is assisting the MoHCDGEC to develop the NSMIS platform and reporting system.

BOX 1.

DEVELOPMENT PARTNERS GROUP AND THE WATER SECTOR BASKET FUND

The Tanzania Water Sector Development Partners Group (DPG) established in 2005 harmonizes bilateral and multilateral agencies and donors in implementing the Sector-Wide Approach (SWAp) through the Basket Fund. The Water Sector Basket Fund financed sector programmes, however, under WDSP II, DPs do not contribute to the basket fund and financing has moved towards earmarked funding where each project has specific monitoring mechanisms enclosed in the financing agreement. A new National Water Fund to finance WASH and WRM projects is being established. The fund requests proposals for funding from implementing agencies, and issues loans to successful organizations, employing the DP-preferred RbF approach.

Despite good coordination of the DPG, interviews with stakeholders and relevant ministries showed that the sector dialogue and coordination is weak. Stakeholders cited the switch from a basket fund approach (see Box 1) to earmarked financing as contributing to weakened sector coordination, meaning that stakeholders lacked incentive or motivation for formal sector dialogue around progress, since if DPs do not contribute to the basket fund there is reduced need to monitor/accountability for the basket fund. This is reflected in the last Joint Supervision Missions being conducted in 2019. This situation accounts for the reduced activity of the DPGs, including weaker partnership with the GoT and less ability to leverage their position to contribute to the sector and national level monitoring. The relocation of GoT to Dodoma was also a reason, suggested by a recent USAID report, for the reduced sector dialogue.

Sector Monitoring: CDMT

The Central Data Management Team (CDMT) was established in 2015 by MoW to centralize data management and reporting from LGAs and facilitate water supply services monitoring, evaluation, and data management for the sector. This has led to considerable improvements in data accuracy and timely reporting. The development partners, through innovative funding, support this group and have helped accelerate

progress of data management and monthly reporting.

Joint Water Sector Review Processes

The Joint Water Sector review (JWSR) processes assess sector progress against strategy targets and verify the monitoring data, the JSR should be undertaken annually and brings the health and water sectors together. In Tanzania, the last JWSR was in March 2019 and in 2016 prior to that, a gap resulting from the move to earmarked funding described above. The DPG has revitalized the JSR process with the MoW and the next one is planned for September 2021. In addition, the MoW with development partners will implement midterm reviews of the WSDP II, last done in 2018. Currently, a final review of the sector is in draft.

BOX 2.

EMPOWERED CITIZENS ACCOUNTABILITY

TAWASNET is a network of CSOs who strengthen the voice of civil society, mandated to prepare an annual Water Sector Equity Report. The report plays an important role in 'ground-truthing' sector performance, assessing sector financing and accountability. The report highlighted factors that constrain the accountability of the sector: One key factor raised was unavailable and undocumented information on private sector performance data, as well as individuals not aware of their own rights and responsibilities. It also noted that stronger mechanisms were required for mutual accountability.

2.3 WASH Policies and M&E frameworks

The recent structural reform established a new Water Supply and Sanitation Act No. 5 of 2019 repealing Water Supply and Sanitation Act, No. of 2009 and a new water policy is awaiting cabinet approval to replace the National Water Policy of 2002.

The WASH sector is guided by the national Second Five-Year Development Plan (FYDP II), 2016/17–2020/21, as well as the sector strategy – Water Sector Development Plan (WSDP) Phase II 2016–2019. In addition, there is a 2020–2025 National Strategy for Accelerating Sanitation and Hygiene (NEHSAS) for all and a National Strategic Plan for School Water, Sanitation, and Hygiene (SWASH), 2012–2017. There are two national sector level monitoring frameworks, firstly the newly drafted Integrated Water Sector M&E system and monitoring plan and the existing WSDP II Results Monitoring Framework. In addition, the National Sanitation Campaign (NSC) Results Framework tracks the performance of the sub-sector NEHSAS strategy and UWSSAs key performance indicators.

The various strategic plans and monitoring frameworks mentioned here do not integrate with one another or sufficiently align to complement approaches. This indicates a lack of communication and coordination within the sector. At present, the strategic WASH monitoring frameworks are mis-aligned in key areas, and it is not clear what the relationship or hierarchy is between the frameworks. The newly drafted Integrated Water Sector M&E System and Monitoring Plan (see Box 3 below) aims to oversee water sector progress. However, it does not present a coherent sector framework with adequate integration or cross-referencing of sub-sector monitoring frameworks and tools. Firstly, the indicators in the integrated M&E System Monitoring Plan 2020–2025 do not align with the existing WSDP II results framework, neither with the NEHSAS high level outcomes and associated NSC results framework which includes outcomes for hygiene. Missing objectives for hygiene and associated indicators in the integrated M&E plan are a significant gap in the sector level frameworks. The results framework for the National Sanitation Campaign, part of the WSDP II, is aligned to the NEHSAS. The NSC results

framework also has indicators for SWASH and WinHCFs.

The main instruments for monitoring in the integrated M&E system are M&E performance indicators and a monitoring plan. The performance indicators are explicitly linked to national development goals, but the localization of SDG 6.1 and 6.2 targets is only partially achieved since indicators for water access is not aligned to safely managed and there is no indicator aligned to monitoring access to handwashing to household. The associated monitoring plan (Annex 1) defines the data needs for four strategic objectives, associated outcome indicators, data collection procedures and tools, reporting frequency and institutional roles and responsibilities.

BOX 3.

A SINGLE FRAMEWORK FOR WATER SECTOR MONITORING

The recently published National Integrated Water Sector M&E system (2021) is a key document for WASH monitoring implementation at service delivery levels and should act as a single tool of reference for sector monitoring. It establishes the main features of the Water Sector M&E system and roles and responsibilities of WASH stakeholders, as well as setting up new coordination mechanisms, but according to interviews cross-sector coordination or inputs to the national integrated M&E system and framework was missing, and few stakeholders were aware of the M&E system.

The document, as well as the drafted results framework and monitoring plan makes no reference to SDG 6, which appears a missed opportunity to strengthen national level coordination of SDG 6 monitoring.

The WSDP II main monitoring instruments is a result monitoring framework. The costed monitoring plans were not available for review.

The framework links indicators to overall programme objectives and sub-component objectives with quantified targets in absolute numbers. This framework tracks progress of sector objectives, sub-objectives, targets of the five components of the WSDP II. The WSDP II monitoring framework effectiveness is limited by the following issues:

- There is no current or updated WSDP II strategy with targets as a reference point for the monitoring framework. WSDP II targets span to 2019 and is out-of-date. The MoW is now embarking on developing WSDP III.
- Data sources are not clearly defined in the existing WSDP II results monitoring framework. The existing frameworks simply refers to MoW as almost uniquely responsible for the data collection and the 'MoW report' for all data, except for MoH in respect of access to Sanitation.
- Loss of relevance for the WSDP II monitoring framework, due to a move to earmarked funding and a move from a SWAp.

Sector Financing

The implementation of the WSDP II was through a streamlined funding (basket funding) with a SWAp. However, this mechanism has not been successful with some major donors pulling out. Moreover, the government, due to limited resources, has not allocated a WASH monitoring budget. Therefore, the current monitoring programmes are donor financed which poses a sustainability risk.

BOX 4.

RESULTS BASED FINANCING TO SUPPORT SECTOR MONITORING

FCDO was first to introduce the Payment by Results (PbR) funding modality in 2014 for rural WASH programming. The World Bank

replicated this approach and in total, PbR is now covering 17 regions. The FCDO/World Bank are coordinating design, implementation and continuity in 17 regions as FCDO phase out, requiring sub-sector dialogue for rural WASH.

FCDO Payment by Results (PbR):

FCDO support to the Rural Water Supply, Sanitation and Hygiene programme in Tanzania used the innovative Payment by Results (PbR) funding modality, which incentivized LGAs to achieve programmes objectives through tying funding disbursements to specific indicators on water point functionality. Money was disbursed to district accounts through RUWASA to support their own monitoring system, including the Water Point Mapping System. According to the FCDO annual review, the PbR approach has improved data management and monthly reporting from LGAs to the Central Data Management Team (CDMT) and contributed to significant improvement in completeness (100%) and correctness (80%) of data, but more work needs to be done to improve accuracy of the data reported. However, regarding data accuracy, PbR is a catalyst as there is no evidence of it driving improvement.

World Bank results-based Sustainable Rural Water Supply and Sanitation Programme (2019-2024):

The World Bank WASH programme uses a RbF mechanism to incentive the programme objectives. One of the seven disbursement-linked indicators (DLIs) is linked to improving the "Submission of timely, accurate and complete sector M&E data". Payments under DLI 7 are based on districts providing complete sector data to the Central Data Management Team (CDMT) against completeness, correctness and accuracy criteria that the district must meet. World Bank data feeds into CDMSW data managed by RUWASA, and this includes data on access to rural water supply and sanitation services in participating districts. It was not possible to access the actual datasets at the MoW.

2.4 Routine monitoring systems for WASH

This will set out the main features of the routine monitoring systems that are managed by the different institutions, including the MoH, MoE, RUWASA, EWURA and MoW.

2.4.1 National Sanitation Management Information System (NSMIS)

The countrywide system is administered and hosted by the MoHCDGEC with data entry at council level. The system was established in 2017 and upgraded in 2019 with UNICEF, to improve alignment of data inputs and dashboard visualizations. NSMIS captures information for sanitation and hygiene at household, school and healthcare facilities, both urban and rural. Data for household water treatment and safe storage is also captured in the system. NSMIS covers 26 regions and respective councils, wards and villages for the Tanzania mainland. Zanzibar has a separate system. Household data is collected and recorded in the sub-village register. The remoteness of villages, the large geographical areas as well as low staff morale affects data quality. Data entry is done at district level from aggregated village level information. Validation and aggregation of data is done at the Village Executive Officer, Ward Health Officer level and then WHO submits data to District Health Officer, who in turn submits data to Regional Health Officer who delivers data to MoH at national level. The Ministry and stakeholders often conduct supportive supervision in councils and regions for data quality spot checks.

The village register defines several categories of toilet (A-F) based on toilet infrastructure to identify improved (Tanzania standard)/unimproved facilities. This is combined with household access data to distinguish between shared/not shared toilet facilities. This information on shared/non shared is then used to determine whether the service level is limited/basic or eventually safely managed. NSMIS data portal thus monitors percentage of households with improved toilets

and percentage of households with basic toilets which are categorized into types A, B and E.

There are discrepancies noted between indicator alignment of NSMIS and JMP criteria. Specifically, the NSMIS system reports on safely managed sanitation, that includes calculation of the percentage of households with improved toilets and but does not include data on treatment or disposal or storage of sewage – this means that 'safely managed' is not defined in line with the JMP definition. In addition, the NBS has previously measured household access to sanitation with categories such as any toilet facility, latrine with slab, and latrine with washable slab, thus these are not classified by the JMP indicators.

Lastly, Annex 3 also highlights discrepancies in the reported figures from NSMIS routine monitoring and various surveys used for JMP. For example, large differences in percentage of population accessing unimproved and limited sanitation services, which is difficult to account for, even with a lapse in time. NSMIS reported 2% of the population using unimproved sanitation in 2021, compared to 31.4% of the population using unimproved sanitation MIS used for JMP in 2017. NSMIS reported 5.4% of the population accessing limited sanitation, compared to 28.3% in 2017 from the MIS.

Data quality for NSMIS is a major challenge due human resource and capacity issues. In particular, most data collectors are volunteers and lack appropriate incentives. The MoH reported that there are very few wards in the country that have extension environmental health officers and are looking at alternative sustainable ways to improve data flow from lower level. A shortage of staff at ward level to supervise data collection and carry out data verification at villages level is also a barrier. The main strengths and weaknesses of the NSMIS are summarized below.

BOX 5.

KEY STRENGTHS AND WEAKNESS OF NSMIS

Key strengths

- *NSMIS is based on District Health Information Software DHIS.2 software, which is free to use, and the MIS system is developed free of charge thus in terms of cost of system, it is manageable and sustainable.*
- *The system is hosted by the MoHCDGEC as part of implementation of the eHealth strategy and this is within the WSDP II framework. Therefore, NSMIS is within the policy framework, and this makes it possible to source budget allocation (from government and donors) as seen in the national strategy for Accelerating Sanitation and Hygiene for All (2020–2025).*
- *The system has a user-friendly interface that does not require advanced computer application skills to use.*
- *The system is updated every quarter and generates annual progress estimates.*
- *Although NSMIS is not fully aligned to JMP indicators (refer to section 2.3), there is a structured plan coordinated by MoHCDGEC and NBS through the WASH data technical working group to have all the indicators aligned with JMP/SDG.*

Key weaknesses

- *Data completeness is less than 100% because of low commitment levels of the community-based volunteers which is linked to their lack of motivation. A sustainable incentive mechanism – a community-based approach ought to be explored to ensure communities are at the forefront in collection and use of data. Sensitization of communities on the benefit of tracking sanitation and hygiene in their communities is vital.*
- *Transportation of hard copies data from villages, ward to districts is time consuming and this process may be source of possible errors/mistakes, data loss. Data entry and cleaning at the district level gives a chance for data verification but this process may*

also be lacking due to resources that are required.

- *NSMIS does not have disaggregated data for urban and rural sanitation.*

2.4.2 Water Point Mapping System (WPMS)

The Water Point Mapping System is a comprehensive water point data sets with over 90,000 georeferenced observations managed by the CDMT. The existing WPMS is countrywide and includes urban and rural data at the water point level. The MoW is in the process of updating this system through a new MIS managed by RUWASA. At present, the indicators used in WPMS do not align with the SDG 6 indicators and this system is not up to date. MoW does not have updated routine data on rural water supply in any of the MIS systems.

In principle, the WPMS centralizes data collection (previously through the LGAs – now managed by RUWASA), supported by Community Management Organizations (CMO's) and Community Based Water Supply Organizations (COBWSO's). COBWSOs send data to the Village Executive officer (VEO), who then share data to the Ward Executive officer who forwards them to the District Water Engineer to verify and enter the data. MoW receive data from the District Water Engineer. Documents have highlighted that the data collection process is not fully operationalized to be done on routine basis. Therefore, there is a gap in completeness and accuracy of data in the system.

2.4.3 MAJIS

MAJIS is MIS system managed by EWURA for the UWSSAs. This system facilitates the utilities' internal monitoring and planning processes and tracks performance on the set targets at the utility level. The data in the system is not publicly available but summaries from the KPIs are highlighted in the EWURA reports. Some WASH indicators in MAJIS include population with direct access to individual water connections, population with access to water through kiosks and percentage of the population with sewerage coverage – out of the population living within the coverage area of the network.

2.4.4 Education Management Information System (EMIS)

This is an online system where data is filled directly from schools. The schools fill data individually and the data verified at ward level. MoEVT verifies this data in randomized sampling sites for quality assurance. The EMIS data is restricted to public and is accessible to approved partners only. MoEST reported indicators are well aligned with JMP core indicators, and supported by UNICEF however, no report has yet been published to verify this data. The WinS assessment was conducted in 2018 but the report published in 2020 and this is to be used as a baseline for WinS.

The MoH and MoE both monitor WASH in institutions, through the NSMIS and EMIS respectively.

2.4.5 Other MIS systems

Laboratory Information Management System (LIMS): LIMS has been established under the Department of Water Quality, Directorate of Water Resources Management. This supports the ministry to have coordinated water quality data. It was not possible to get the detailed information on the kind of data that is in the LIMS.

BOX 6.

SURVEYS

The NBS conduct national surveys, such as Household Budget Surveys (HBS), Malaria Indicator Surveys (MIS), Demographic and Health Surveys (DHS), Service Provision Assessment (SPA) for health facilities and School Water, Hygiene and Sanitation Assessment which provide SDG data. The DHS survey that is to be done October/November 2021 is likely to collect the safely managed data at household level.

The focus by NBS is building MIS systems that can be used as source of routine data. They can also get support from the administrative data. Tanzania statistical master plan is being developed to guide the process of routine data collection on WASH and other sectors.

2.5 Localization and alignment of national WASH targets and data with JMP indicators

National Targets and Framework Alignment

Tanzania has committed to SDG 6.1 and 6.2 targets universal coverage by 2030. The Tanzanian Development Plan states the following goals to be achieved by 2025: “universal access to safe water”.

The national Five-Year Development Plan (FYDP) sets out the following targets from 2021–2025:

- Access to safe water in rural areas – 90% by 2025;
- Access to piped or protected water regional centers and Dar es Salaam – 100%;
- Proportion of rural households with improved sanitation facilities – 85% by 2025 and in regional centers – 70% by 2025 (FYDV II).

The draft Integrated M&E System 2021 Framework incorporates these targets, and goes beyond the FYDP targets for safely managed sanitation:

- Universal access to adequate, safe and clean water improved; Rural – 90%; Urban – 98%;
- Universal access to sanitation services improved (Integrated M&E system 2021) – Safely managed Urban – 40%; Safely managed Rural – 90%.

The FYDP II does not set national targets for hygiene aligned to SDG 6.2. Likewise, national commitments for hygiene are not evident in the recent integrated sector M&E and monitoring plan or WSDP II. The NEHSAS, strategic objectives and relevant objectives include relevant targets in the NSC results framework that are aligned to the SDG 6.2/JMP hygiene indicators.

The NEHSAS NSC results framework hygiene targets are not mentioned in the FYDP:

- Handwashing – 65% by 2025;
- Access to Improved sanitation and hygiene – 85% by 2025.

SDG 6.1: The FYDV II targets, existing WSDP II results framework and integrated M&E system results framework indicators report to ‘basic’ levels (Table 2). The indicators measure **“% of the population with access to piped or protected sources”** and **“improved Water Sources in urban and rural areas”** respectively, capturing people served with household connections and those within 400 metres of a water point. However, the indicators are not aligned and there is no requirement for reporting if water supplied is safely managed.

The challenge for reporting against JMP indicators for safely managed drinking water is acknowledged. One barrier is linked to institutional issues, since the existing Water Policy 2002, does not mention water quality monitoring as necessary, only providing policy framework for water access. The Water Policy is currently under review as noted. The 2020 WASH Data TWG

report also noted poor alignment of the WSDP II components with SDG 6 stating:

"…not all WSDP II Components have completed the efforts to re-configuring the Results Framework to align with the SDG indicators causing the sector stakeholders[to] have no common point of reference for monitoring".

Lastly, the 2025 targets set out below are ambitious and if achieved would place the GoT and the Sector on a positive trajectory to meet the SDG 2030 targets, however based on current projections, Tanzania is not on track to meet the SDG 2030 targets. Moreover, the existing M&E frameworks are not temporally aligned with the 2030 agenda. The WSDP Strategy is effective up to 2025, whilst the WSDP II results monitoring framework is even more limited with 2019 targets; as such, the WSDP II monitoring framework is two years out of date, and targets are not harmonized with the 2030 agenda.

Table 2: SDG 6 targets in Water Sector Monitoring Frameworks

SDG	**Water**	
Targets	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	
Indicators	6.1.1 Proportion of the population using safely managed drinking water services	
Target	Access to safe water in rural areas - 90% by 2025; Access to piped or protected water Regional centers and Dar es Salaam - 100% by 2025 *(FYDV II)*	
	Universal access to adequate, safe and clean water improved; Rural – 90% by 2025; Urban – 98% by 2025 *(Integrated M&E system 2021)*	
Indicator	Rural population with access to piped or protected water as their main source (%) *(FYDV II)* Population with access to piped or protected water as their main source in regional centers (%) *(FYDV II)*	
	Percentage of rural population with access to safe and clean water *(Integrated M&E system 2021)* Percentage of urban population with access to safe and clean water *(Integrated M&E system 2021)*	
SDG	Sanitation	Hygiene
Targets	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	
Indicators	6.2.1a Proportion of population using safely managed sanitation services	6.2.1b Proportion of population with handwashing facilities with soap and water at home
Target	Proportion of rural households with improved sanitation facilities, 85%; 2025 regional centers, 70% by 2025 (FYDV II) Universal access to sanitation services improved *(Integrated M&E system 2021)* Safely managed Urban – 40% by 2025; Safely managed Rural – 90% by 2025	NEHSAS NSC results framework Handwashing - 65% by 2025 Access to Improved sanitation and hygiene - 85% by 2025
Indicator	*FYDV II:* Proportion of the households with improved sanitation facilities in rural areas (%) Households connected to convention public sewer systems in regional centers (%)	Core Indicators NEHSAS NSC results framework: Access to basic handwashing facilities (handwashing point, water and soap)
	Integrated M&E system 2021 Annex 1: Monitoring Plan Proportion of population using urban safely managed sanitation services Proportion of population using rural safely managed sanitation services Proportion of household connected to conventional public sewerage systems in urban area Proportion of wastewater safely treated	

SDG 6.2: The FYDP II and WSDP II targets and indicators for SDG 6.2 align to 'improved service levels' at household level, but not up to 'safely managed' services. The sub-sector NEHSAS strategy and NSC results framework is fully aligned to the SDG 6.2/JMP indicators with targets and indicators including definitions for safely managed sanitation, as well as basic, limited and open defection. No sector targets refer to the **use of services** (Box 7).

BOX 7.

USE VS ACCESS

The SDG 6.1 and 6.2 indicators refer to the population using safely managed services. The WDSP II and the recent integrated M&E system indicators do not reflect this distinction between use and access. The sub-sector MIS also do not determine use/vs access. Despite, it being very difficult to collect data on use, sector monitoring frameworks should align definitions and the terminology of the SDG/JMP indicators too. The 'use' is captured better by the DHS survey.

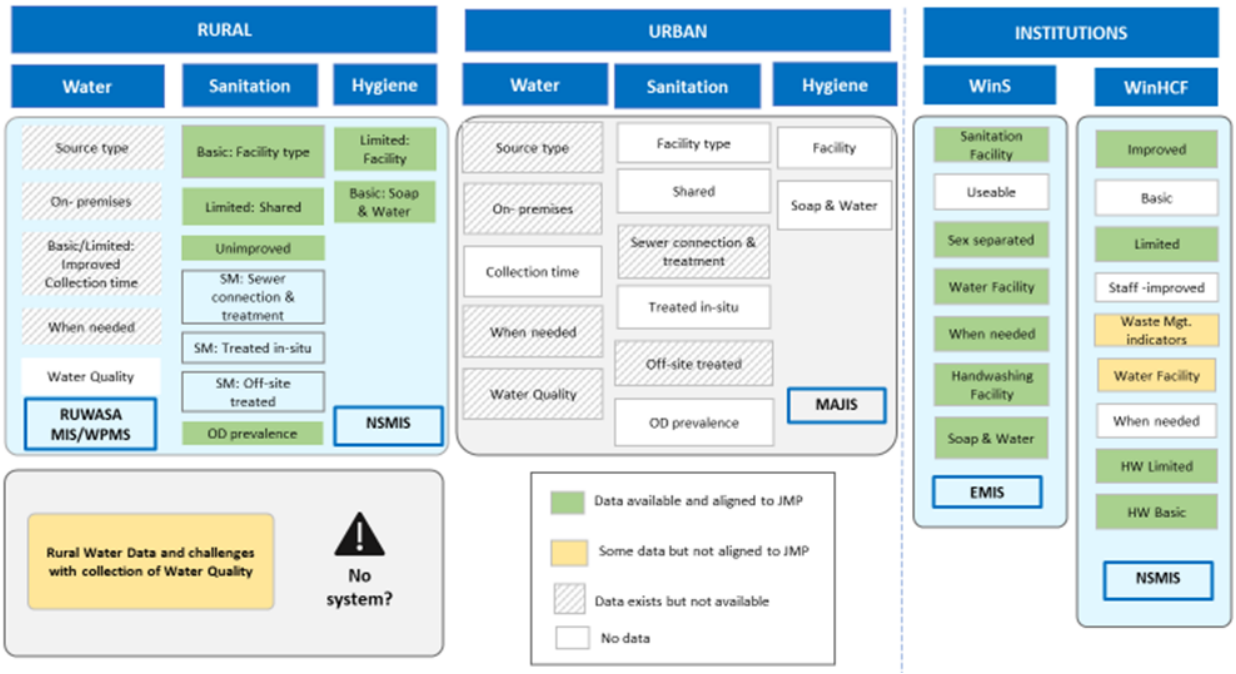
The draft integrated M&E system monitoring plan (see Figure 2 below) includes outcome indicators for urban and rural sanitation aligned to the JMP highest service level for 'safely managed sanitation'. However, the rural indicator description and subsequent calculation only captures the percentage of households with improved toilets, there is no requirement for safe disposal or storage on site or the transport and treatment off site. It does not include data on households with sewerage connections. Therefore, data reported cannot be safely managed.

Conversely, for urban sanitation the indicator calculation includes data on sewerage connections and whether it is treated. This means that the indicator is aligned to the safely managed criteria.

Alignment of MIS systems with SDG 6.1 and 6.2/JMP

Figure 2 maps the extent of existing MIS systems to report against JMP SDG 6.1 and 6.2. The WPMS and MAJIS provide limited data availability and alignment to SDG 6.1.1 for water although, in

Figure 2: Routine Data Management and alignment to JMP



principle, stronger for urban vs rural sub-sector monitoring. The RUWASA MIS is in development, so it is not possible to comment on alignment with JMP for SDG monitoring.

The NSMIS indicators align to SDG 6.2.1 for safely managed services, and rural sanitation data is available to measure national performance against SDG 6.2 targets, although only to basic JMP service level, and data is not disaggregated for rural and urban data. In the urban sub-sector, alignment to SDG 6.2.1 is partial, and data availability is very limited through MAJIS, although there is likely existing data to report to safely managed service levels.

The extent to which SDG 6 targets and indicators are aligned with national targets, and the availability of routine monitoring data routine is discussed below and can be addressed by the National WASH TWG:

WPMS Alignment with JMP indicators

Water: Data for monitoring targets for access to drinking water in rural water is through the RUWASA MIS which replaces the existing MIS

Table 3: Rural WPMS alignment with JMP

	SAFELY MANAGED Drinking water from an improved water source which is located on premises, available when needed and free from faecal and priority chemical contamination	-	*Located on Premises*	Existing drinking water source data in WPMS does not report whether the water point is “on premises” or “in yard”.
		-	*Available when needed*	WPMS was principally used to capture functionality of water sources – which is reported in existing data. However, it does not gather data on the availability of all water sources and water points.
		-	*Free from contamination*	The WPMS did not systematically collect water quality data and therefore cannot measure whether water is free from faecal and priority chemical contamination.
	BASIC Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing	●	*Improved source*	WPMS gathered data on water point type which allowed this indicator to be fully reported. The reporting options included improved springs and rainwater harvesting as a reporting option.
		○	*Less than 30-minute roundtrip*	WPMS does not collect data on distance or total time for collection.
	LIMITED Drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip including queuing			
	UNIMPROVED Drinking water from an unprotected dug well or unprotected spring	●	*Unprotected source*	WPMS collected data on a range of water points – this included unprotected hand dug wells or springs as reporting options.
	SURFACE WATER Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal	●	*Surface water source type*	WPMS collected data on a range of water points – this included unprotected hand dug wells or springs as reporting options.

(WPMS). It is not clear if the updated MIS managed by RUWASA will fill the gaps in data, including reporting water quality data to align with safely managed services.

MAJIS Alignment with JMP indicators

Water: In the urban sub-sector, the UWSSAs report monthly routine monitoring data through MAJIS. The regulator EWURA monitors the UWSSAs performance by KPIs which include (a) percentage of population served with water, (b) average hours of supply (availability) and (c) water quality Compliance including E. coli and turbidity, (d) proportion of population connected to the sewerage service. These indicators are partially aligned to the SDG 6.1.1 for safely managed water, fully aligned with safely managed water require SPs to distinguish service provided 'on premises', currently the indicators only capture coverage. The UWSSAs also report to EWURA for water quality compliance monitoring for pH, Turbidity, E. coli and Residual Chlorine.

It is also noted that Water Safety Plans guidelines for urban and rural water supply also includes

Table 4: MAJIS utility reporting indicator alignment with JMP

	SAFELY MANAGED Drinking water from an improved water source which is located on premises, available when needed and free from faecal and priority chemical contamination	◐	*Located on Premises*	Existing data in UWSSAs collect data '% of population served with water', the location of the communal/household water points could be disaggregated to report against this indicator.
		◐	*Available when needed*	Existing data gathered by UWSSAs could be used to report against this indicator. The data on average hours of supply (availability) would provide an estimation of availability relative to need.
		●	*Free from contamination*	UWSSAs gather data on water quality including E. coli and Turbidity that could be used to report water quality to comply with regulators. JMP suggest sub-sample of 5-6 households per cluster.
	BASIC Drinking water from an improved source, provided collection time is not more than 30 minutes for a roundtrip including queuing	●	*Improved source*	Existing data in UWSSAs collect data '% of population served with water'. UWSSAs are reporting piped water provision which is considered an 'improved' source for JMP.
		◐	*Less than 30-minute roundtrip*	If water point is recorded as 'piped on premises' this does not need to be reported.
	LIMITED Drinking water from an improved source for which collection time exceeds 30 minutes for a roundtrip including queuing			
	UNIMPROVED Drinking water from an unprotected dug well or unprotected spring	●	*Unprotected source*	
	SURFACE WATER Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal	●	*Surface water source type*	

verification monitoring, which collects data on water quality including microbial quality, physicochemical quality which would provide data for safely managed drinking water. According to WSPs the data is reported in water quality data report and WSP monitoring reports.

The existing gap in data for water quality was acknowledged by the WASH data technical working group and the NPS 2019 survey was stated to include water quality issues. Interviews with the MoH indicated a data gap in urban sanitation data, and they were not aware of indicators alignment and how MAJIS or EWURA captures safely managed sanitation. Strengthened coordination between the MoH and EWURA/MAJIS maybe be sufficient to align of the routine monitoring systems covering urban services.

Sanitation: The potential alignment to the SDG 6.2.1 'safely managed sanitation, is from KPI (d) for sewerage is and provides data in line with "removed from the home through sewer lines and treated at a treatment plant". It is therefore potentially fully aligned with safely managed. It is likely that data exists and could be utilized to measure progress against SDG 6.1.1 and 6.2.1,

Table 5: MAJIS utility reporting indicator alignment with JMP

	SAFELY MANAGED Use of improved facilities which are not shared with other households and where excreta are safely disposed in situ or transported and treated off-site	○	*Treated and disposed in situ*	
		●	*Stored temporarily and then emptied and transported to treatment off-site*	UWWSAs gather and report on 'Proportion of population receiving WSSAs regulated sanitation services (%)' which would allow them to report on against this JMP criteria
		●	*Transported through a sewer with wastewater and then treated off-site*	UWWSAs gather and report on 'Proportion of population receiving WSSAs regulated sanitation services (%)' which would allow them to report against this JMP criteria
	BASIC Use of improved facilities which are not shared with other households	◐	*Improved*	UWWSAs does not gather data on the 'type of toilet facility that households' use
		○	*Shared*	
	LIMITED Use of improved facilities shared between two or more households			
	UNIMPROVED Use of pit latrines without a slab or platform, hanging latrines or bucket latrines	○	*Unimproved pit latrine*	
	OPEN DEFECATION Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste	○	*Open defecation*	

but that data is unlikely to be available in current formats due to a lack of data standardization in standalone MIS systems.

NSMIS alignment to JMP indicators:

Sanitation: In the rural sub-sector, the NSMIS data portal currently reports proportion of population with access to safely managed sanitation and therefore fully aligned to the 'safely managed' service levels for SDG 6.2.1. Whether NSMIS can robustly report use of safely managed services depends on the data collection tools to measure how the excreta is managed. The NSMIS defines categories based on toilet infrastructure which can identify improved/unimproved facilities and combines this with household access data on shared/non shared to distinguish between shared/not shared toilet facilities. This information on shared/non shared is then used to determine whether the service level is limited/basic or eventually safely managed.

For WinS, the EMIS can report up to a 'basic' service level. This dependent upon verification that it collects data against 'accessible when needed' and can show whether the toilets are sex separated. The EMIS collects data against JMP

Table 6: NSMIS alignment with JMP

	SAFELY MANAGED Use of improved facilities which are not shared with other households and where excreta are safely disposed in situ or transported and treated off-site	○	*Treated and disposed in situ*	
		●	*Stored temporarily and then emptied and transported to treatment off-site*	UWWSAs gather and report on 'Proportion of population receiving WSSAs regulated sanitation services (%)' which would allow them to report on against this JMP criteria
		●	*Transported through a sewer with wastewater and then treated off-site*	UWWSAs gather and report on 'Proportion of population receiving WSSAs regulated sanitation services (%)' which would allow them to report against this JMP criteria
	BASIC Use of improved facilities which are not shared with other households	◐	*Improved*	UWWSAs does not gather data on the 'type of toilet facility that households' use
		○	*Shared*	
	LIMITED Use of improved facilities shared between two or more households			
	UNIMPROVED Use of pit latrines without a slab or platform, hanging latrines or bucket latrines	○	*Unimproved pit latrine*	
	OPEN DEFECATION Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches and other open spaces or with solid waste	○	*Open defecation*	

criteria for WinS, but data is not yet reported or publicly available.

For WinHCFs, hygiene indicators on handwashing align with JMP. 'Reliable water source' may partially contribute to 'accessible when needed' but does not align fully with JMP. The sanitation indicators 'usable' and 'sex separated' are not included in NSMIS.

3 Key Findings

Tanzania has well defined leadership for WASH sector monitoring at all levels, but these complex institutional responsibilities for WASH monitoring are not well coordinated and institutions lack capacities.

Despite formal definition of roles and responsibilities with clear leadership arrangements for WASH monitoring activities across line ministries, there is a lack of coordination across the different ministries involved. Moreover, institutions do not always have the capacities to fulfil monitoring mandates. The technical coordination is insufficient, highlighted through inactive technical working groups, that lack sufficient financial and human capacity. The recent irregular JSR/SPR review process reflects a lack of coordination mechanisms and weak partnerships for monitoring and reporting.

The WASH data TWG, with inputs with JMP, was an effective coordination tool for strengthening WASH monitoring to track performance against universal access to water and progress against SDG 6.1 and 6.2

The WASH data TWG led by NBS and chaired by MoW (with inputs from sector ministries including MoH, MoE and PO-RALG) with inputs from JMP played a critical role in SDG 6 monitoring – resulting in a well-coordinated effort to align the WASH indicators with SDG 6. The TWG contributed to the integration of SDG 6.1 and 6.2 indicators into routine monitoring, focusing on alignment of DHIS surveys to collect safely managed drinking water. The WASH Data TWG successfully strengthened coordination and created awareness and ownership of SDG 6 targets and JMP indicators within different levels of the WASH sector, including strengthening alignment of EMIS, and is positive elements present in Tanzania driving the localization of SDG 6. It should expand focus to prevent a sense of fragmented monitoring over SDG 6. Despite this, the WASH data TWG focused largely on surveys, and there remains a gap in the alignment of the WASH indicators in the existing MIS systems.

Sector financing is a strong influence and incentive for the Sector monitoring and coordination mechanisms and effective partnerships

The SWAp and basket financing approach helped to drive coordination with development partners in monitoring. The shifts to earmarked sector financing, and the withdrawal of some partners from the basket fund appears to have reduced the accountability of the sector to implement WSDP II and constrains a coherent SWAp to monitoring and leads to reduced sector dialogue. However, the innovative financing tools, such as PbR and DLIs do appear to provide the correct type of incentives to ensure programme achievements, including improved monitoring are met.

Existing WASH sector monitoring frameworks and plans are out of date and incoherent

The existing WASH sector strategies (FYDV II, WSDP II) monitoring frameworks and plans are outdated and lack coherence. The WSDP II monitoring framework which is the mandate for operation and implementation needs to be updated as current phase and monitoring targets are out of date (2019). The existing targets for SDG 6 (WSDP II, FYDV II and M&E system) are temporally mis-aligned to the 2030 Agenda, with targets spanning up to 2025.

There is no single reference point for coordination and implementation of monitoring plans that integrates existing monitoring frameworks. The new integrated M&E system is a progressive step forward toward integrated sub-sector monitoring but does not yet fully integrate or harmonizes the sub-sector monitoring frameworks and plans.

The lack of a coherent single reference for WASH sector monitoring (as discussed in section 2.1) which would act as a common reference and harmonize targets and indicators across sub-sector frameworks and monitoring systems also constrains the localization of the SDGs at all levels.

Localization of SDG 6 in National Policies and Sector Strategies is not fully pursued. The Water Sector Policy of 2002 is outdated, notably lacking policy statements for water quality which would support localization of SDG 6 goals.

Sector policies and strategies are not fully aligned to the SDG 6. In particular, the sector monitoring frameworks need to focus on establishing well defined indicators and definitions for SDG 6.1 and 6.2 capable of meeting JMP criteria for 'use of safely managed services'. However, the localizing agenda should not focus primarily on aligning policies and sector targets. Downward accountability to increase ownership and accountability to SDG 6 at a sub-national sector, including the regulators EWURA/UWSSAs representing the private sector, but also community level institutions and civil society is also missing.

Standalone sub-sector routine monitoring systems for WASH Sector operate well but has led to difficulties in consolidation of data to provide an overview of national performance for decision making, with integration constrained by technical issues

The routine monitoring for WASH sector is performed by standalone sub-sector systems which function well for varies types of monitoring. The WPMS was principally asset management and was not aligned to JMP service levels. It was also not updated regularly. The new RUWASA MIS will replace WPMS – it is not yet clear what the objective or intended data use is for the new MIS. NSMIS focus on service level monitoring in the rural sub-sector, whilst MAJIS collected from the UWSSAs focuses on performance monitoring for SPs in the urban sub-sector.

There is no single national WASH monitoring MIS/ database that provides an overview of national data. The lack of standardized reporting formats also prevents integration or merging of data between different systems.

Data gaps still exist in routine monitoring systems to properly understand and track access to WASH

Rural sanitation data from NSMIS aligns to a 'basic service' level. For urban WASH data in MAJIS, there is scope to make the existing data available for monitoring sector targets. It is not fully aligned to JMP service levels, but with small tweaks could be used to track progress against sector targets.

Overall, the monitoring of safely managed services is challenged by poor indicator definitions and calculations, and consequently a lack of data existing or available across both water and sanitation sub-sectors. Despite significant investment in the Water sector for monitoring systems and tools, significant data gaps in rural and urban sub-sector still exist.

A major challenge is developing realistic indicators for safely managed water and collecting water quality data is a difficult exercise. The NBS was involved in driving the process of alignment to SDG 6.1, including water quality monitoring data but this was focusing on household surveys rather than routine monitoring data. At the same time, water point data is a politically sensitive

issue in Tanzania, and the MIS databases and dashboards are not publicly available.

3.1 Opportunities for improving WASH monitoring in Tanzania

Short Term

The new WSDP III is an opportunity to strengthen the strategic vision for better WASH data management, and drive alignment with SDG 6.1 and 6.2 targets for safely managed services.

- The new WSDP III should embeds 'safely managed services' in the strategy objectives, as well as defining realistic indicators for safely managed services. In addition, the new WSDP III should strengthen the strategic vision for digital WASH monitoring, that would enhance data sharing and exchange and data use across sectors.

The draft integrated Sector M&E system and monitoring plan is an immediate opportunity to integrate and harmonize sub-sectors monitoring and drive technical coordination.

- A detailed monitoring framework and workplan should 1) define responsibilities for different data requirements, and 2) indicate committed resources to fulfil these resources. The system should also consider how to support increased data sharing, and data use between sub-sectors at national and subnational level, including civil society.

Expand the role of the technical working groups for increased coordination of sector and sub-sector monitoring.

- Expand on the role of the WASH data TWG for coordination of sector monitoring, as well as the ongoing alignment to SDG 6 within national MIS. This is an easy win since it builds on existing in-country capacity and expertise on WASH data. In addition, the TWG will enhance stakeholder participation and coordination between MoW, MoH, EWURA, PO-RALG and MoEST – considering data interoperability from urban utilities.

Ensure robust quality of NSMIS data collection

- Revise definition and indicator calculation for safely managed sanitation in line with JMP criteria to fully align NSMIS to safely managed sanitation. This would have to be redefined at the community level with associated data collection tools but would be an immediate opportunity to align data collection and reporting with indicators.

Use ongoing development RUWASA MIS to provide complete service level data for tracking progress against SDG 6

- Build a sub-sector MIS that addresses the monitoring needs of stakeholders, whilst at the same time could be designed with data exchange in mind to contribute to sector level progress reporting against SDG 6.1 and 6.2.

Longer term

Ensure the updated Water policy updates can drive accountability and point to the need for stronger WASH sector information management and responsibility for SDG 6.

- The updated WASH policy is an opportunity for the sector to anchor the reporting requirements for SDG 6.1 and 6.2 into the policy frameworks.

Integrate the sub-sector MIS systems into a single WASH sector vertical MIS system – that can increase availability of data for decision making in real time

- Developing a single MIS architecture, with an interoperability layer, is a key opportunity to integrate and use already available sub-sector data in standalone MIS, enable cross-sectoral data exchange, and harmonize to information/data flow into one system.

- For example, using existing data within MAJIS MIS is an immediate opportunity to improve reporting and monitoring of SDG 6. An MIS with an interoperability layer would facilitate sharing, and if publicly available would increase the accountability of the private sector to the sector.

3.2 Learning points for WASH monitoring in Eastern and Southern Africa

WASH monitoring systems should be collaborative projects by donors and government stakeholders. The drafting of the integrated Water Sector M&E system needs more cross sectoral inputs from stakeholders including WinS, WinHCFs, Urban WASH, Rural WASH, Local government – to ensure cross sectoral harmonization and be the basis for the M&E implementation. This collaboration of the WASH sector players and government is critical towards sustainability of the WASH monitoring systems. Such collaboration may be required from the planning stages of projects, so the WASH investments are more sustainable. NSMIS has enjoyed support from various donors as well as government and this has enabled the system to run sustainably, and it has also been upgraded. On the other hand, WPMS is a good example of a donor funded system that has not been run in a sustainable manner after the project was established and completed. Updating of data in WPMS discontinued after the project closed. Currently MoW is working on developing a parallel system (Ruwasa MIS) and it is not clear whether this system will build on some of the existing data in WPMS.

The localization of the SDG 6 targets into national targets has been successful in Tanzania and there is good ownership of the SDG 6 targets from the Water Sector, bringing legitimacy to the SDG 6 2030 agenda. But making localization a local issue will require that civil society and the private sector are involved in the consultations. This will lead to a more technical approach to SDG 6 monitoring, rather than the current unstructured approach that is politically influenced.

There is good progress and political will to align routine monitoring to the SDG/JMP criteria. The Sector used a structured process to align the WASH indicators, led by the WASH data TWG that is chaired by NBS and this involves all the stakeholders. This is a good initiative. However, the process needs fine tuning, to reflect the complexity of the JMP criteria and where and how this can be reflected in MIS.

Annex 1 – Details of routine WASH monitoring systems

Routine Monitoring Systems	NSMIS	EMIS/BEMIS	WPMS	MAJIS
Lead organization	MoH	MoEST/PO-RALG	MoW	EWURA
Scope of System (Water/Sanitation/ Hygiene)	Sanitation and Hygiene	Water, sanitation, hygiene	Water	Water Utilities Urban Water and Sanitation
Type of system ***MIS/surveys/etc***	MIS	MIS	MIS	MIS
Indicator(s) used	**Household Sanitation** % of HH with safely managed toilets % of HH with improved toilets (Tanzania standard) % of HH basic toilets (types A, B and E) % of HH with limited toilets % of HH with unimproved toilets (type F) % of HH with any form of toilet (A, B, C, D, E, F) **Household Hygiene** % of HH with handwashing facility with soap and water available % of HH with limited handwashing points **HCFs** % of healthcare facilities with adequate water supply; % of HCF with improved toilets and m/f ratio of 1:20 and 1:25 % of HCF with functional handwashing points with Soap	**Water** Access to safe water Available when needed **Sanitation** Access to improved sanitation facilities Sex separated toilets **Hygiene** Access to handwashing facilities with water and soap	Water point status-functional/non-functional/needs repair Percentage of full coverage met by functional WPT Year of construction Water source type; shallow well, borehole, spring, rainwater harvesting, river/lake, dam Extraction type; gravity, rope pump, hand pump, wind powered, water powered, motor pump, electricity powered, submersible, other Perception Water quantity; enough, seasonal, insufficient, dry, unknown Perception water quality; good, milky, salty, fluoride, unknown	Proportion of population living within the area with water network KPI 1 Proportion of Pop. served with water KPI 2 Average hours of supply (hrs.) KPI 3 Water quality compliance E-Coli (% of the water samples that pass particular water quality tests for potability) KPI 11 Proportion of population receiving WSSAs regulated sanitation services (%)

Routine Monitoring Systems	NSMIS	EMIS/BEMIS	WPMS	MAJIS
	Schools % of primary/secondary schools with reliable safe water supply % of primary/secondary schools with sanitation facility % of primary/secondary schools with functional handwashing facility and soap			
Alignment with SDG 6	*Alignment with SDG Basic* Data is collected which includes all the elements of the basic level and included at least one element of safely managed services.	Indicators are well aligned with questions with JMP core indicators – and embedded in basic EMIS. This is as reported by MoEVT.	None	
National coverage	Nationwide- all 26 Region with their respective councils, wards and villages. NSMIS is only for Tanzania Mainland. Zanzibar has a separate system.	Nationwide	National wide	
Rural/Urban	Rural/Urban	Rural/urban	Rural/urban	
Frequency of data collection	Routinely- but there is a challenge of incompleteness of data due to motivation of volunteers.	Annual	Monthly	
Data collection process	Data collection is currently paper based, volunteers at the community level collect, data is transferred to the sub-national level in manual copies and then entered the system at the sub-national level. The process is led by MoHCDGEC at all levels.	Online system – data is filled directly from schools where schools fill data individually. Data verified at ward level and MoEVT verifies this data in randomized sampling sites.	The data is collected by LGA's through Community Management Organizations (CMO's) and Community Owned Water Supply Organizations (COWSO's).	

Routine Monitoring Systems	NSMIS	EMIS/BEMIS	WPMS	MAJIS
Data accessibility and use	Restricted access. Data is accessible to approved partners only.	*Restricted access. Data is accessible to approved partners only.*	*Open access. Data (in at least summary form) is available to the public.*	*Restricted access. Data is accessible to approved partners only.*
Non-community settings	No	No	No	No
WinHCF	Yes	n/a	Yes, but not disaggregated	
WinS	Yes	Yes	Yes, but not disaggregated	

Annex 2 – National WASH targets and indicators

SDG	Water	Sanitation	Hygiene
Targets	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	
Indicators	6.1.1 Proportion of the population using safely managed drinking water services	6.2.1a Proportion of population using safely managed sanitation services	6.2.1b Proportion of population with handwashing facilities with soap and water at home
Cross-cutting indicators	4.a.1 Proportion of schools with access to: [...] (e) basic drinking water; (f) single-sex basic sanitation facilities; and (g) basic handwashing facilities		
National SDGs Targets and Indicators			
Target	Access to safe water in rural areas – 90% 2025 Access to piped or protected water Regional centers and Dar es Salaam – 100% 2025 (FYDV II) Universal access to safe water (2025) TDV 2025 Integrated M&E system 2021: Universal access to adequate, safe and clean water improved Rural – 90% 2025 Urban – 98% 2025	Proportion of rural households with improved sanitation facilities – 85% 2025 regional centers, 70% 2025 (FYDV II) Improved sanitation – 95% (2025) TDV 2025 Integrated M&E system 2021 Universal access to sanitation services improved Safely managed Urban – 40% 2025 Safely managed Rural – 90% 2025 NEHSAS Safely Managed – 57% 2025 Basic – 41.1% 2025 Limited – 1.9% 2025 OD – 0% 2025	NEHSAS NSC results framework Handwashing – 65% 2025 Access to Improved sanitation and hygiene – 85% 2025
Indicator	Rural population with access to piped or protected water as their main source (%) Population with access to piped or protected water as their main source in regional centers (%) Integrated M&E – Monitoring Plan 2020/21–2024/24	Proportion of the households with improved sanitation facilities in rural areas (%) Households connected to conventional public sewer systems in regional centers (%) Integrated M&E – Monitoring Plan 2020/21–2024/24	Core Indicators NEHSAS NSC results framework: Access to basic handwashing facilities (handwashing point, water and soap)

	% of rural/urban population with access to safe and clean water Urban WSPs Verification Monitoring Operational monitoring checks compliance for national drinking water quality standard specifications (TWATER QUALITYS, 2008). Compliance monitoring: Microbial quality, physico-chemical quality parameters, WSP quality auditing, water users' satisfaction surveys	Proportion of Rural/Urban population using safely managed sanitation services Proportion of household connected to conventional public sewerage systems in urban area Proportion of wastewater safely treated Core Indicators NEHSAS strategic objectives: Access to safely managed sanitation Access to Basic Sanitation (not shared toilets with intact slab) Population with access to limited sanitation (%) (shared) Population without any form of toilet	
Source for Target	Strategic Framework WSDP II 2015/16–2020-21 Integrated M&E system 2021	Strategic Framework WSDP II 2015/16–2020-21 NEHSAS Second Five-Year Development Plan (FYDP II) FYDP II and SDGs for National Strategy for Growth and Reduction of Poverty (MKUKUTA II), Vision 2025 and the Second Five Year Development Plan (FYDP II)	NEHSAS FYDP II and SDGs for National Strategy for Growth and Reduction of Poverty (MKUKUTA II), Vision 2025 and the Second Five Year Development Plan (FYDP II)
Reporting data			
Source(s) of data	Rural: reporting system Urban: MAJIS RUWASA: *WPMS* EWURA: (WSSAs) *MAJIS*	Urban: MAJIS, NSMISS Rural: NSMIS, field questionnaire RUWASA: *(RM, MoH)* EWURA: (WSSAs, MoH)	MoH: NSMIS
Indicator included in data	% of full coverage met by functional WPT Treatment and safe storage at household level (NSC)	% of HH with safely managed toilets % of HH with improved toilets (Tanzania standard) % of HH basic toilets (types A, B and E) % of HH with limited toilets % of HH with unimproved toilets (type F)	% of HH with handwashing facility with soap and water available % of HH with limited handwashing points

		% of HH with any form of toilet (A, B, C, D, E, F)	
Alignment			
Is target aligned with available data	Yes/no WPMS does not include /calculate % access. No possibility to capture safely managed data – water quality measurement. Rural: reporting system not defined. The WPMS cannot identify the number of people served. Urban: Not been able to look at indicators in MAJIS which captures the urban data	Yes (data matches what is needed to report against the target)	Yes
Tracking progress			
Baseline established	Yes: Rural: 51% 2014 (WSDP II) Urban Dar Es Saleem: 68% 2013 (WSDP II) Urban Regional Centers: 80% December 2013 (WSDP II)	Yes: Safely managed- 28.5% 2020 (NEHSAS) Basic Sanitation: 67.3% 2020 (NEHSAS) Total population: 2.2 million households (25%) in 2013 (WSDP II)	Yes: Handwashing: 45% 2020 (NEHSAS)
Frequency of progress reporting	Quarterly, Annually	Quarterly, Annually	Quarterly, Annually
Most recent update to progress reporting	Unknown		

Annex 3 – JMP and routine data

		Water		Sanitation		Hygiene	
Service Level		Routine Monitoring	JMP	Routine Monitoring	JMP	Routine Monitoring	JMP
Safely Managed	Value	National 17.85% Rural: ND Urban: ND	ND	National: 27.5% Rural: ND Urban: ND	ND		
	Most recent data point	NSMIS, March 2021 *This % of HHs treating drinking water*	ND	NSMIS, March 2021	ND		
Basic	Value	ND	National 62% Rural: 50% Urban: 90%	ND	National 60% Rural: 49% Urban: 87%	ND	National: 82.8% Rural: 80.8% Urban: 87.8%
	Most recent data point	ND	MIS, 2017	ND	MIS, 2017	ND	ICF Macro Survey, 2016
Limited	Value	ND/JMP data latest	National: 15% Rural: 22% Urban: 6%	National: 5.4% Rural: Urban:	National: 28.3% Rural: 17.1% Urban: 43.2%	National: 47.8% Rural: ND Urban: ND	National: 43.2% Rural: 49.8% Urban: 28.2%
	Most recent data point	ND/JMP data latest	MIS, 2017 *This is the difference of the % that walks no more than 30 mins*	NSMIS, March, 2021	MIS, 2017	NSMIS. March, 2021	ICF Macro Survey, 2016
Unimproved	Value	ND/JMP data latest		National: 2%	National: 31.4% Rural: 40.5% Urban: 9.9%		

	Most recent data point	ND/JMP data latest		HBS, 2019 NSMIS, March 2021	MIS, 2017		
Surface water/ Open Defecation/ no facility	Value		National: 11% Rural: 14% Urban: 4%		National: 7% Rural: 9.7% Urban: 0.6%		National: 17% Rural: 19.1% Urban: 12.1%
	Most recent data point		MIS, 2017		MIS, 2017		ICF Macro Survey, 2016

Annex 4 – Details of key informants

Name	Organisation	Role
Amour Seleman	Ministry of Health, Community Development, Gender, Elderly and Children (MoHCDGEC)	Environmental Health and Sanitation unit
Diana Kimario	Ministry of Water and Irrigation (MoW)	Policy and Planning Officer
Khalid Dihenga	Ministry of Education and Vocational Training (MoEVT)	Senior Officer - EMIS
Mlemba Abbasy	National Bureau of Statistics (NBS)	Principal Statistician
Iain Menzies	World Bank	Senior Water & Sanitation Specialist
Lucas Kwezi	FCDO	Water & Sanitation Advisor
Francis Mtitu	USAID	Project Management Specialist
Darius Mhawi	TAWASNET	Policy and Advocacy Officer
Francis Odhiambo	UNICEF country office	Chief WASH
John Mfungo	UNICEF country office	Programme Specialist
Conrad James Massaquoi	UNICEF country office	WASH Specialist

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