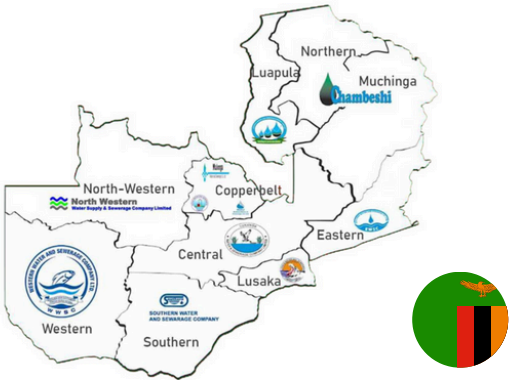
Dev-Afrique

LEARNING SERIES 1

NWASCO Information System (NIS)

A fit-for-purpose sanitation data tool



This is a web-based system used by the National Water Supply and Sanitation Council (NWASCO) to monitor the performance of water and sanitation service providers, also known as Commercial Utilities (CUs), in Zambia.

BEFORE 2003

NWASCO was faced with the challenges of data reliability, data timeliness, and data comparability for performance review and reporting.

IN 2004

NIS was created as a data entry platform that enables CUs to submit annual reports electronically. The system became the major source of information for urban water supply and sanitation.

IN 2017

NIS was upgraded to a web-based platform that enables easy data scrutiny, modification and export to other platforms. The NIS is used by both NWASCO and CUs

IN 2018

The NIS was updated to include key performance indicators for Urban Onsite Sanitation (OSS) and Faecal Sludge Management (FSM). The OSS and FSM are frameworks for service provision and regulation.

The NIS tool enables NWASCO to effectively execute its regulatory functions of monitoring the performance of CUs, setting tariffs, and advising the government on water and sanitation matters.

NWASCO measures the performance of CUs against a set of indicators highlighting priority areas for service provision, including water quality, water coverage, sanitation coverage, revenue collection, non-revenue water reduction, staff efficiency, and operating efficiency.

To effectively monitor the status of sanitation services and considering that the only comprehensive sanitation data has been on sewerage systems, NWASCO has been supporting CUs to:

- Conduct GIS mapping of onsite sanitation facilities.
- Create a comprehensive database to establish profiles of their potential clients.

Because of this support, the CUs can

- Plan and develop suitable sanitation business models.
- Monitor and report on the entire sanitation service chain.
- Obtain information for designing the treatment facilities.

Dev-Afrique Development Advisors, a DevGlobal partner, is currently implementing a BMGF-funded project called Public Service Data Systems: Landscaping, Learning, and Technical Assistance. The project aims to strengthen WSH public data systems - focusing on non-sewered sanitation – for effective performance management at the municipal and utility levels in selected countries across Africa.

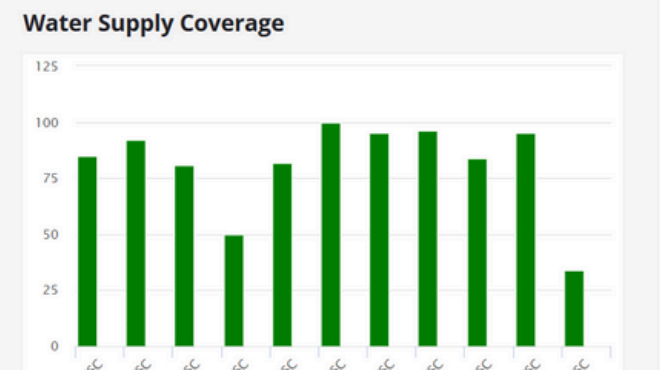
NWASCO, through the NIS has improved performance management of 11 Commercial Utilities and 4 Private Schemes.

To increase national harmonization of all sanitation indicators, NWASCO now requires all CUs to capture and report sanitation data by the WHO/UNICEF JMP sanitation service ladders. The components of the NIS data value chain are as follows:

1.DATA GENERATION

NWASCO, through the use of the NIS and other digital platforms, has digitized the data collection process. Data is inputted into the NIS by the CUs using a data collection sheet provided by NWASCO. NWASCO ensures regular updating of the data collection sheet. To support data generation, NWASCO:

- Provides data standardization by defining terms and methods of data collection and analysis.
- Trains water utility staff to ensure the data reported is up to standard. It also conducts data validation at regular intervals for quality checks.
- The NIS collects data on water and sanitation services, covering financial, technical, commercial, and personnel aspects. Among the sanitation data collected are type of sanitation facilities (onsite and offsite), size, usage, and condition



Total Connections

Commercial Utility	Total Domestic 2023	Total Non-Domestic 2023	Total Connections 2023	Total Connections 2024
CHWSC	44,065	601,464	46,429	0
EWSC	27,791	375,398	29,859	0
KWSC	69,603	827,579	72,649	0

2. DATA ANALYSIS

NWASCO analyses performance of CUs using several Key Performance Indicators (KPIs). The KPIs are:

- Water Coverage
- Revenue Collection Efficiency
- Metering Ratio
- Hours of Supply
- O+M Cost Coverage by Collection
- Water Quality
- Staff efficiency
- Non-Revenue Water
- Staff Productivity
- Metering Ratio.

3. DATA OPERATIONALIZATION

The output data from NIS is used by the regulator (NWASCO) and CUs to make informed decisions.
This data enables NWASCO to assess:

- Compliance of CUs to license conditions, Service Level Guarantees, and Agreements
- Performance of CUs and make recommendations on investments needed to close the gaps in service delivery

The data also enables CUs to:

- Identify areas for improvement in sanitation service delivery.
- Benchmark their performance against other CUs, thereby facilitating cross-learnings