SECTOR-WIDE ASSESSMENT DESK STUDY REPORT FOR THE PREPARATION OF A NATIONAL STRATEGY ON HUMAN CAPACITY DEVELOPMENT ADDRESSING JUNIOR AND SENIOR PROFESSIONAL AND TECHNICIAN LEVEL CAPACITY CHALLENGES

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Submitted by:

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NEPAD Water Centres of Excellence

Aim of the Assignment:

This second phase of NEPAD Centres of Excellence on Water has the aim of supporting the establishment of Human Capacity Development (HCD) Programme in the Water Sector in Africa through the NEPAD African Network of Centres of Excellence in Water Sciences and Technology (CoE)





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EXECUTIVE SUMMARY

This Sector-Wide Assessment Desk Study report addressed the professional and technical level capacity challenges at the Uganda NEPAD Water Centre of Excellence (CoE). It identified the actors, defined an implementation framework together with an M&E framework in Uganda's water sector, the sector needs at national level, and also defined priorities with national counterparts through a multi-stakeholder participative approach.

The Water sector in Uganda falls within the Ministry of Water and Environment and consists of two sub-sectors namely; the Water & Sanitation sub-sector and the Environment & Natural Resources (ENR) sub-sector. The Water and Sanitation Sub-Sector comprises of rural water supply and sanitation, urban water supply and sanitation and water for production.

Besides the ministry, other institutions in the sector include, the National Water and Sewerage Corporation (NWSC) which is a public and state-owned utility currently providing water supply and sewerage services in 225 towns, including Kampala Capital City and its surroundings. The other agencies directly linked to the ministry include; National Forestry Authority (NFA), the National Environment Management Authority (NEMA), and, the Uganda National Meteorological Authority (UNMA). Other key stakeholders include the Local Government, Donors, Civil Society Organisations (CSOs) and Private Sector. Local Governments are the key implementers in the delivery of services in the sector as well as private sector firms. Similarly, Development Partners (DPs) and CSOs offer the requisite interventions in support of government actions for service delivery.

The MWE as the lead line ministry responsible for coordination of water and sanitation activities in the sector has a sector Capacity Development Strategy since 2012, which provides the framework for implementation and monitoring capacity development at sectoral level. The responsibility for coordination, reporting and monitoring of sector Capacity development is anchored under the Sector Capacity Division of the MWE. The Handbook and Toolbox for operationalization of the Sector Capacity Development strategy provides the operational guidelines for implementation of capacity development by sector stakeholders, including the sector institutions/agencies. The Water and Environment CD framework is anchored on existing institutional framework for implementation of capacity development in the public sector.

The concept of Junior and Technical professionals is not commonly used in the water sector in Uganda. However, in the context of the water sector and the Uganda public service, Junior professionals are the fresh University graduates with zero to about 3 years of professional work in the water sector while technical professionals are those who do not go through the university system but undertake certificate and Diploma courses in vocational training institutions and use that as the entry point into the water service and production sector. There are some ongoing initiatives of capacity development for both Junior professionals and technical professionals but there are some major gaps which need to be addressed in order to ensure efficiency and effectiveness in performance in the service delivery in the water sector. Senior professionals within the sector also undergo routine capacity development but mainly in management – related work.

Monitoring, evaluation and risk management are important supporting activities for the capacity development process. In addition to the established reporting and monitoring processes that are anchored under the Policy and Planning Departments of the MWE, overall monitoring of the progress of the subsector capacity development plans is done annually and reported on in the Annual Water and Environment Sector Performance Reports

Capacity development initiatives in the water sector is being implemented by various stakeholder institutions, and these include the MWE which is the lead sector coordinating institution for CD, the NGOs under the Water Sanitation Umbrella Organization – Uganda Water and Sanitation Network(UWASNET), the Local Governments, the Private sector, Sector Agencies – National Water and Sewerage Corporation and the Academia. Capacity Development in the Water sector is guided by the Water and Environment Sector Capacity Development Strategy (2013/18), which targets three levels: the enabling environment; the Organizational level; and the Individual level.

The priory gaps within the water sector are related to technical skills, leadership management, performance management, Information and knowledge management, catchment management and Communication and stakeholder engagement. The report provided the priority capacity development gaps for junior professionals and technical professionals. But generally, there is gaps have got to do with deficiencies in the required individual skills needs, to being under-staffed, to having management issues. The capacity development challenges in the Water and Environment Sector were discussed into its sub-sectors based on the vote functions: decentralization challenges, incomplete public-sector reforms, oversight weakness and political inconsistency, and cross-sectoral coordination.

LIST OF ACRONYMS

Fad African Development Bank **ATC** Appropriate Technology Centre **BTC** Belgian Technical Cooperation Community-Based Organization **CBOs**

Capacity Development CD

CDP Capacity Development Planning Capacity Development Plans **CDPs** Central Forest Reserves **CFRs** Center of Excellence CoE **CSOs** Civil Society Organisations **Development Partners**

DWRM Directorate of Water Resources Management

DWD Directorate of Water Development Directorate of Environmental Affairs DEA

DP's **Development Partners**

DPs

EIA **Environment Impact Assessment Environment & Natural Resources ENR**

ENWASS Enhanced Water Security and Sanitation Programme

FAO Food and Agricultural Organization

GoU Government of Uganda **Higher Education Institutions HEIs**

JWESSP Joint Water and Environment Sector Support Programme

M&E Monitoring and Evaluation Millennium Development Goals **MDGs** MoES Ministry of Education and Spots

Ministry of Finance, Planning and Economic Development MoFPED

Ministry of Health MoH

MTC Ministry Training Committee MWE Ministry of Water and Environment

New Partnership for Africa's Development **NEPAD**

NFA National Forestry Authority Non-Governmental Organizations NGO

NWSC National Water and Sewerage Corporation

Operation and Maintenance O+MSector Capacity Development **SCD**

Skills Development for Human Resources **SDHR**

Sector Performance Reports SPR

SWOT Strength, Weaknesses, Opportunities and Threats

TFR Training for Real Terms of Reference ToR **TSU Technical Support Units**

United Nations Development Program UNDP Uganda National Meteorological Authority **UNMA**

UOs Umbrella Organizations UWASNET Uganda Water and Sanitation Network
WEDC Water, Engineering, Development Centre

WESWG Water and Environment Sector Working Group

WfP Water for Production
WMZ Water Management Zones
WRI Water Resources Institute
WSS Water Sewerage & Sanitation

WSDFs Water and Sanitation Development Facilities

CHAPTER ONE: INTRODUCTION

1.1 Introduction

The overall objective of the project is to strengthen the peace and security in African countries through supporting the sustainable development of the water sector, Economic Green Growth and Poverty Reduction. The project's purpose is to foster sustainable capacity development at institutional, higher education, technical, scientific and vocational level in the water sector through the NEPAD/Africa Union Networks of Water Centres of Excellence in Water Science and Technology.

The Sector-Wide Assessment Desk Study report was one of the deliverables under the first sub-activity for establishment of a national Human Capacity Development Programme addressing professional and technical level capacity challenges at the Uganda NEPAD Centre of Excellence (CoE). The Sector-Wide Assessment Study identified actors and sector needs at national level; defined priorities with national counterparts through a multi-stakeholder participative approach; defined an implementation framework together with an M&E framework in Uganda's water sector.

1.2 Background of the Water and Environment Sector in Uganda

The Water and Environment sector consists of two sub-sectors, namely; 1. the Water & Sanitation (WSS) sub-sector and 2. the Environment & Natural Resources (ENR) sub-sector. In Uganda, the entire water sector is called the Water and Sanitation Sub-Sector. The Water and Sanitation Sub-Sector comprises of rural water supply and sanitation, urban water supply and sanitation and water for production.

The Ministry of Water and Environment (MWE) is the lead Government of Uganda line ministry responsible for coordination and management of water and environment resources in the country. Its primary mandate is setting national policies and standards, managing and regulating water and environment resources and determining priorities for water development and management. It also monitors and evaluates sector development programmes to keep track of their performance, efficiency and effectiveness in service delivery.

The stated vision of the Water and Environment Sector encompasses managing water as a resource, establishing water infrastructure for development, harnessing weather and climate and promoting ecosystems and biodiversity resilience. The Ministry is comprised of three (3) Directorates: Directorate of Water Resources Management (DWRM), Directorate of Water Development (DWD) and Directorate of Environmental Affairs (DEA). In addition, the Ministry is supported by four (4) stand-alone departments to support the technical departments, and these include: Finance and Administration Department, Water and Environment Sector Liaison Department, Policy and Planning Department responsible for the strategic planning, budgeting and monitoring and Climate Change Department.

To support the implementation of water and sanitation related activities, the MWE introduced deconcentrated structures at regional level. These include the Technical Support Units (TSUs), responsible for capacity building and provision of technical back up support to the local

governments (District Water Offices), the Water and Sanitation Development Facilities (WSDFs), responsible for provision of piped water supply systems in rural growth centres, the Water for Production regional centres, responsible for construction of valley tanks and valley dams at community level, as well as mini irrigation systems, the Umbrella Organizations(UOs) responsible for Operation and Maintenance(O+M) of pipe water supply systems at community level, the Water Management Zones (WMZ), responsible for planning and management of water catchments.

1.3 Water Sector Actors and Stakeholders

Other institutions in the sector include, the National Water and Sewerage Corporation (NWSC) which is a public and state-owned utility currently providing water supply and sewerage services in 225 towns, including Kampala Capital City and its surroundings. The National Forestry Authority (NFA) is mandated to manage the gazetted 506 Central Forest Reserves (CFRs) and supply high quality forestry related products and services. The CFRs form part of the beautiful and unrivalled advantage Uganda has world over in tourist attraction. The National Environment Management Authority (NEMA) was set up by an Act of Parliament to ensure sound environmental management practises for sustainable development. The Uganda National Meteorological Authority (UNMA) is responsible for monitoring weather and climate, maintain climate database and provide regular advisories on the state of the weather and climate to government and any other clients including agriculture sector, transport, disaster preparedness and the public (See detailed sector structure in figure 1.1).

Other key stakeholders include the Local Government, Denors, Ceivil Society Organisations (CSOs) and Private Sector. Local Governments are the key implementers in the delivery of services in the sector as well as private sector firms. Similarly, Development Partners (DPs) and CSOs offer the requisite interventions in support of government actions for service delivery.

The major source of donor support to the sector originate from bilateral and multilateral financing windows such as the World Bank, the African Development Bank (AfDB), European Investment Bank, European Union, Germany (Kfw/GIZ), as well as direct grants from countries like Denmark, Germany, Austria, France, Japan, FAO, United Nations Development Program(UNDP), Belgium etc.).

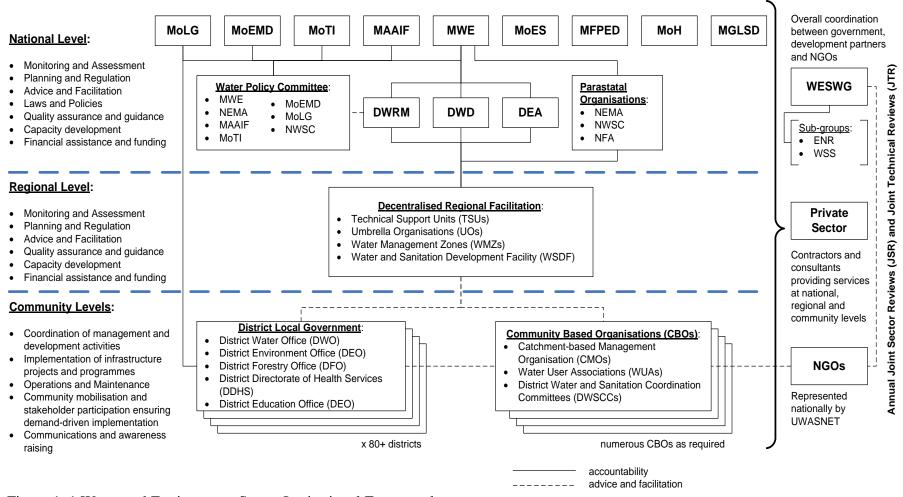


Figure 1. 1 Water and Environment Sector Institutional Framework

CHAPTER TWO: EXISTING IMPLEMENTATION AND M&E FRAMEWORK FOR CAPACITY DEVELOPMENT IN THE SECTOR

2.1 Existing implementation framework for capacity development in the W&E sector

The MWE as the lead line ministry responsible for coordination of water and sanitation activities in the sector has a sector Capacity Development Strategy since 2012, which provides the framework for implementation and monitoring capacity development at sectoral level. The responsibility for coordination, reporting and monitoring of sector Capacity development is anchored under the Sector Capacity Division of the MWE. The Handbook and Toolbox for operationalization of the Sector Capacity Development strategy provides the operational guidelines for implementation of capacity development by sector stakeholders, including the sector institutions/agencies.

Following the development of the SCD strategy and operational guidelines for implementation of capacity development in the Water and Environment sector, efforts have been made to ensure that Capacity Development interventions in the sector are based on capacity needs assessment leading up to development of costed CD plans. As a requirement, CD plans are expected to address capacity requirements holistically, and addressing capacity gaps at the three levels: individual, organization/institutional and the enabling environment.

Implementation of CD interventions is constrained by allocated limited resources during the budgeting process. Different implementation modalities are currently available for funding of CD activities, and these include: (a) On budget finance through the Government of Uganda (GoU) annual budgetary allocations (which are usually meagre and subject to budgetary cuts), (b) On budget finance through the development partners Joint Partnership Fund (JPF), (c) Off budget development partner activities and (d) local revenue generated from the local governments and sector agencies such as National Water and Sewerage Corporation(NWSC) and the Civil Society Organizations(CSOs). Each of the above funding modalities follows specific processes and procedures.

The main funding for sector capacity development is currently provided through on budget funds from both the GoU and the JPF. The implementation of CD interventions funded from on budget funds follows two processes: (a) The planning process for Human Resources Management and Capacity Development is implemented according to the Public Service Training Policy, while (b) the planning process for sector capacity development is done according to the Sector Capacity Development Strategy. Both processes are initiated at departmental level (in the case of MWE human resources), while the local governments, sector agencies and CSOs initiate separately.

The strategic sub sector capacity development plan serves as a guide to prioritize capacity development activities. For the planning of human resources management at the MWE, a capacity development focal point/desk officer supports the Commissioners (who are the Heads of Departments) in the development of the annual training plan, in collaboration with the Head of Human Resources Division in the MWE. The training plan is based on the performance gaps identified during the individual Annual Performance Appraisal exercise. The Head HRM

consolidates the Departmental annual training plans and submits to the Ministry Training Committee (MTC) for review and submission to the Permanent Secretary (PS) for final approval.

However, for activities addressing sector capacity development beyond the human resources management of the MWE, these are incorporated into general work plans per vote function. The required capacity development activities for the respective financial year are defined at departmental level, based on the strategic sub sector capacity development plan. These are consolidated into sector capacity development plans by the Sector Capacity Development Division of the Policy and Planning Department of the MWE. The consolidated sector CD plans are then presented to the Capacity Development Thematic Working Group for review, approval and mobilization of funds. The Capacity Development Thematic Working Group is a sub sector of the overall Water and Environment Sector Working Group (which is the policy decision making body for the Water and Environment sector), and is comprised of representatives from key sector stakeholders (including development partners, CSOs and private sector).

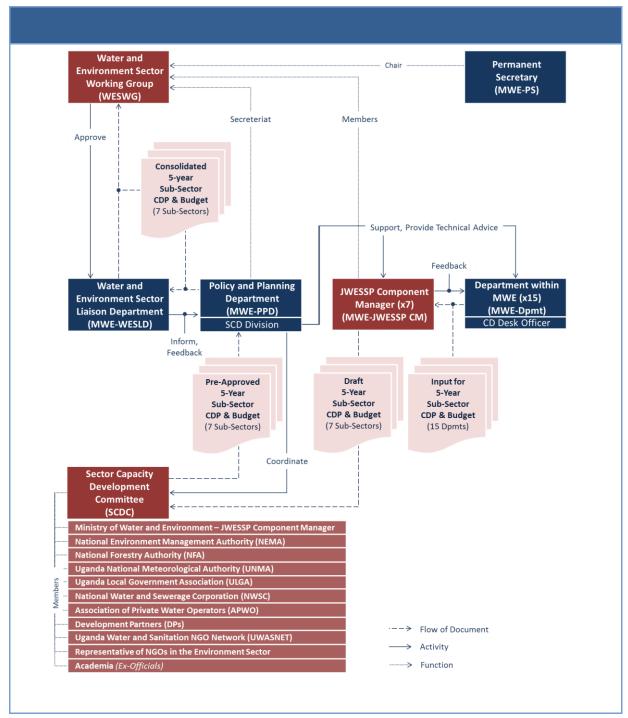


Figure 2. 1. Strategic Sector Capacity Development Planning (Five-year CDP and Budget)

2.1.1 The pillars, strategy, strategic objectives of the CD framework

2.1.1.1 Pillars

The Water and Environment CD framework is anchored on existing institutional framework for implementation of capacity development in the public sector.

Since 2006 the Public Service Training Policy has provided a framework for managing the training functions across the public services. It has established the organisational set-up and procedures for the human resources management within each ministry, department and local government. At its core is the formulation of annual training plans addressing the training needs of public service members as identified in individual annual performance appraisals. The Public Service Training Policy also established a Framework for Monitoring and Evaluation of Human Resources Management. The framework proposes the continuous evaluation of activities before, during and after the event, where possible.¹

The MWE is the first ministry in Uganda that redefined its understanding of capacity development from human resources management (according to the Public Service Training Policy) to a more holistic approach that addresses capacity development not only within the ministry but for the WES as a whole. This approach is referred to as sector capacity development and has been defined in the Sector Capacity Development (SCD) Strategy. The SCD Strategy responds to the perceived lack of benefit of previous capacity development measures². It emphasises a result-oriented, integrated capacity development approach starting with the analysis of performance gaps and priorities, and integrating activities on three levels: the individual level, the organisational level and the level of the enabling environment.

As shown in Figure 2.2, the provision of training on the individual level according to the Public Service Training Policy is an essential part of Sector Capacity Development. The alignment of training to the gaps identified in the SCD Strategy is therefore crucial for the success of capacity development in the sector.

¹ GoU/MPS (2006), p. 13

² Please refer to GoU/MWE (2012), Annex A Overview and assessment of past and current CD initiatives.

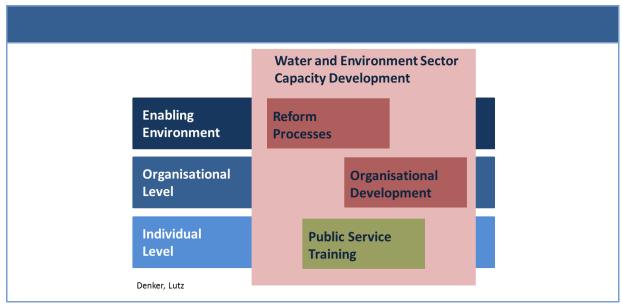


Figure 2. 2 Sector capacity development according to the levels of development

The implementation of capacity development is realised through various channels, namely;

- i. through the processes and procedures for Human Resources Management according to the Public Service Training Policy,
- ii. through activities within the general work plans for on-budget activities,
- iii. through off-budget activities implemented by DPs and within work plans and budgets held by other sector stakeholders. In order to create coherence between the individual activities, to assign scarce resources to the most relevant and most cost-effective activities as well as to generate synergies between activities, strategic sector capacity development planning is required. According to the SCD Strategy result-oriented CDPs should be established for those sub-sectors that follow the vote functions³. The strategic sub-sector CDPs address a time horizon of five years.⁴

In order to strengthen and streamline the management of capacity development interventions in the sector, the strategy introduces a decentralized approach to the management of capacity development, with the individual departments taking on a core role. While the present training committee of the MWE will remain in place, a Sector Capacity Development committee at sector level has been created. The SCD committee will be composed of senior staff nominated from the various sub sectors of the Ministry, including representatives from local government and the NGOs. The SCD committee will become the advisory body to the Water and Environment Sector Working Group (WESWG) on overall capacity building matters for the sector. The SCD

³ (1) Sector Programme Support, (2) Rural Water Supply and Sanitation, (3) Urban Water Supply and Sanitation, (4) Water for Production, (5) Water Resources Management, (6) Environment and (7) Climate Change. To each subsector one JWESSP component is attributed; the sub-sector Water Resources Management is supported by two components (Water Resources Management and Water Management Zones).

⁴ The time horizon will be aligned to the JWESSP, therefore the first set of sub-sector CDPs will have a time horizon until 2018.

committee will report to the WESWG and thus be answerable on CD issues across the whole sector.

Figure 2.3 illustrates the process cycle of sector capacity development. It starts with the development of strategic sub-sector Capacity Development Plans (CDPs). These consist of different work packages that address specific sector capacity development needs. The work packages are then realised through different implementation channels. Regular monitoring and evaluation provides information on the progress of capacity development and serves as an input for further adjustments of the strategic sub-sector CDPs.

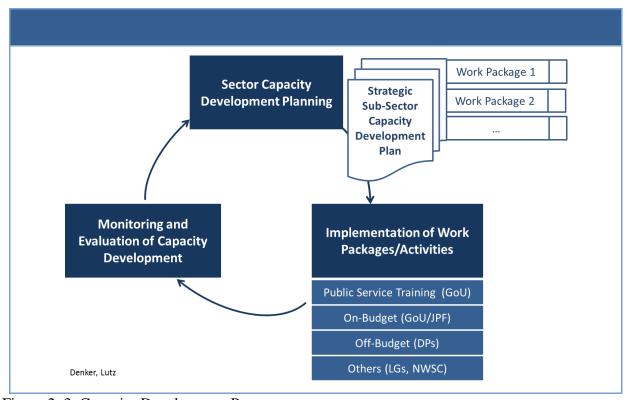


Figure 2. 3. Capacity Development Process

Each of these work packages has a specific expected outcome. It lists the required capacity development activities at the individual level, at the organisational level and within the enabling environment.

A Capacity Development Committee/thematic working group was established to serve the sector and ministry. The committee is composed of senior staff from the different sub-sectors of the ministry, including agencies under the MWE, NGOs/CSOs and the private sector. The committee reports to the Water and Environment Sector Working Group, which is the highest decision making organ at sectoral, responsible for approval of strategic plans, policies and standards. Responsibility for the coordination of capacity development and implementation of this strategy lies with the Policy and Planning Department (MWE, 2017).

2.1.1.2 Strategic Objectives

The strategic objectives of the Capacity Development strategy are that: The Water and Environment sector has the capacity to increasingly meet its targets and undertake its mandate benefiting from a better understanding of its capacity demands, more effective means of delivering capacity in response to the needs and, an increasing ability to positively influence the enabling environment.

The capacity development strategic framework for attaining the strategic objectives defines the approach and delivery mechanisms as well as aspirations based on several guiding principles that ensure consensus between national authorities and development partners, anchoring in national institutions at multi-levels (district, deconcentrated and central levels), broadness in scope (covering the water and environment sectors, including climate change), provision of an enabling environment for capacity development, building on readiness to learn, output and performance orientation rather than focusing on inputs), continual information and adaptation by a participatory bottom up approach, a wide range of delivery options for capacity development and ensures technical assistance that is partner-owned, demand led and results oriented.

2.1.2 Capacity building for Junior professionals and technical professionals

The concept of Junior and Technical professionals is not commonly used in the water sector in Uganda. However, in the context of the water sector and the Uganda public service, Junior professionals are the fresh University graduates with zero to about 3 years of professional work in the water sector while technical professionals are those who do not go through the university system but undertake certificate and Diploma courses in vocational training institutions and use that as the entry point into the water service and production sector. As will be highlighted in subsequent sections of this report, there are some ongoing initiatives of capacity development for both Junior professionals and technical professionals but there are some major gaps which need to be addressed in order to ensure efficiency and effectiveness in performance in the service delivery in the water sector. Senior professionals within the sector also undergo routine capacity development but mainly in management – related work.

2.1.2.1 Capacity building for junior professionals

The demand for competent and skilled professionals within the Water and Environment Sector (WES) is greater than the supply and is expected to continue to increase as a result of government's commitment to sustainable water resources management and provision of improved access to water for all communities. The Ministry of Water and Environment (MWE) is comprised of personnel with specialized technical backgrounds in the sciences, mainly in engineering, environment and water resources management. However, over the recent years, the role of the other social science disciplines in complimenting the sector in achieving its mandate has become apparent. There is a need to up-grade and train practicing professionals and technicians to enable them to respond to their changing roles in the decentralized services in the water and environment sector.

Under the current arrangement, capacity development for junior professionals is implemented through the one year graduate training programme of the MWE, which has been implemented since 1997. The overall objective of the one-year training program is to equip the fresh graduates with practical skills in the relevant subject areas and create a pool of quality man power for the sectors. This program is in line with the Water Sector Capacity building initiatives to strengthen the quality of man power for the sector implementing institutions. The program mainly targets fresh graduates of not more than two years' field experience, and have pursued courses in core skill areas required for the implementation of sector activities such as Engineering, Geology, Social Sciences, Water Quality and Environmental Health Studies. Once recruited, the graduates are attached to ongoing sector projects where they are exposed to the world of work and equipped with practical skills through Field attachments, On Job Training Coaching and Mentoring. On average, approximately 20 fresh graduates from different disciplines are recruited annually.

The other capacity development programme for junior professionals is the mandatory induction training that is embedded into the Public Service Training policy. However, this programme is only applicable to junior professionals that are recruited into the mainstream public service. The objective of the induction training programme is to equip the graduates with the knowledge of the operations of the public service and the conduct of public servants. Later the graduates are then introduced to short term performance improvement programmes to sharpen their knowledge and skills in the specific areas of their deployment.

2.1.2.2 Capacity building for technicians

The MWE does not have a specific capacity development programme for technicians, although they also benefit from the one year graduate training programme.

2.2 Monitoring and evaluation framework for capacity development in the W&E sector

Monitoring, evaluation and risk management are important supporting activities for the capacity development process. Whilst monitoring and evaluation (M&E) gives an indication of the progress of the capacity development, risk management seeks to prevent, mitigate or react to unexpected events. M&E are two complementary activities. According to GIZ (2013) they are defined as follows: Monitoring is a systematic collection of information that enables stakeholders to check whether an initiative is on track and/or achieving set objectives; and Evaluation is a process for measuring the impact or effectiveness of an intervention in achieving set objectives. Two integral parts of monitoring and evaluation are Reporting is the systematic and timely provision of essential information at periodic intervals⁵ and an indicator is a measurable characteristic or variable which helps to describe a situation that exists and to track changes or trends – i.e. progress – over a period of time.⁶

In addition to the established reporting and monitoring processes that are anchored under the Policy and Planning Departments of the MWE, overall monitoring of the progress of the subsector capacity development plans is done annually and reported on in the Annual Water and

⁵ UNDP (2002), p. 7

⁶ GIZ (2013), p. 6

Environment Sector Performance Reports (SPR). Figure 2.4 shows the different levels of M&E reporting under capacity development in the water and environment sector.

Although at the departmental level, the CD desk officer is supposed to work with the Head HRM to review the training plan and report to the MTC, as well as the On-Budget activities related to training and capacity development, the findings through interactions with the relevant stakeholders in the MWE revealed that these is not being done.

At sectoral level, the Sector Capacity Development Division within the Policy and Planning Department of the MWE coordinates the implementation, monitoring and reporting on Sector Capacity Development to the CD Thematic Working Group and subsequently to the WESWG. The Sector Capacity Development Division is responsible for documentation and reporting on sector capacity development activities in the SPR.

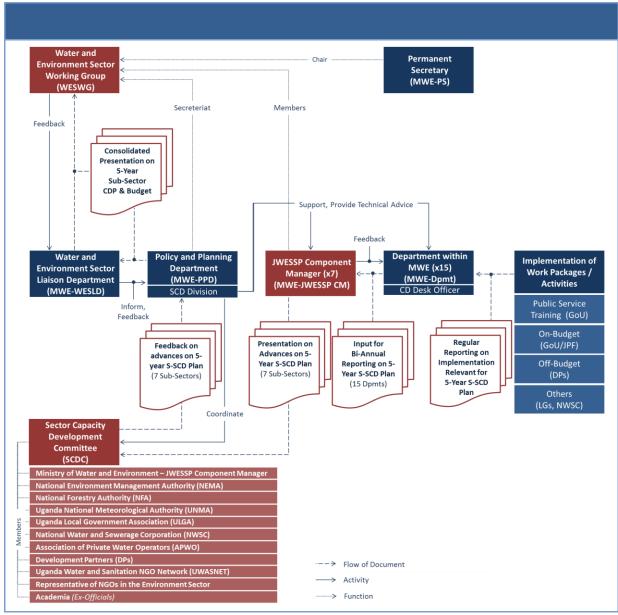


Figure 2. 4. Reporting on Sector Capacity Development

The purpose of M&E within capacity development processes is generally a combination of performance⁷ improvement and accountability.⁸ A general distinction can be made between M&E of capacity development and M&E of capacity. These are strongly interlinked, but respond to different information requirements. The distinction is made because the information required for the improvement of capacity development activities differs from the information requested by stakeholders for accountability reasons.

⁷ According to FAO (2002, p. 5) performance is understood as the progress towards and achievement of results.

⁸ INTRAC (2010), p. 6; FAO (2012b), p. 72

Table 2.1 lists the main characteristics of the two parts of M&E. M&E of capacity development in the water sector, checks the outputs of the capacity development activities, thus the quality and the relevance of capacity development efforts. M&E of capacity is concerned with the outcomes⁹ of the activities. Different stakeholder may even request different content or a different structure of the information provided. In order to design an adequate M&E system the specific expectations need to be clarified.

Table 2.1 Two Levels of M&E			
M&E Type	M&E of Capacity Development	M&E of Capacity	
Purpose	- Performance improvement of capacity development	- Steering and accountability of capacity development	
Evaluation level	OperativeOutputs	StrategicOutcomes	
Key question	- Are we doing things right?	- Are we doing the right things?	
Recipient/ Interested party	 Manager of capacity development activities Provider of capacity development activities 	 Governmental institutions Financier of capacity development activities 	

Figure 2.5 illustrates how the two levels of M&E relate to the impact chain. M&E of capacity development focuses on the improvement of performance at operational level and includes the monitoring and evaluation of capacity development inputs, activities and outputs. M&E of capacity covers the requirements for steering and accountability of the capacity development, thus focusing on the strategic level. It is monitored and evaluated to ensure that the right capacity development activities are being executed in order to achieve the desired outcomes, objectives and goals.

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⁹ Within M&E of capacity, there has been a shift of paradigm within the last decade: 'there is an increased emphasis on measuring outcomes (=changes in behaviour and performance) as a result of public policy, programmes and service delivery. Due to their nature, however, outcomes are typically more difficult to monitor and evaluate, since data is often not readily available and primary data collection is typically required.' (UNDP, 2013: 2)

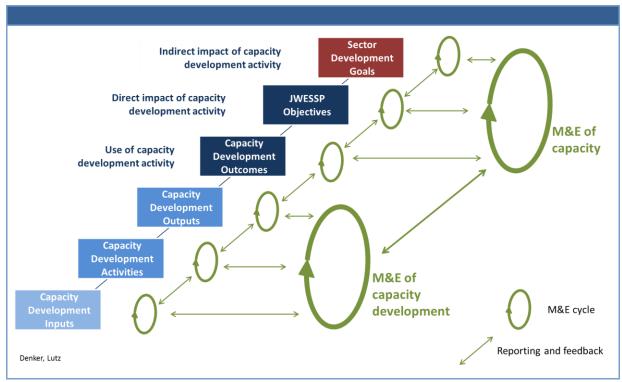


Figure 2. 5. M&E Cycles along the Impact Chain

2.2.1 M&E of Capacity Development (Operative)

Operative M&E provides information to the question, 'Are we doing things right?' Operative monitoring focuses on the timelines of interventions, their costs and outputs. This requires regular (e.g. monthly) monitoring of the progress of the implementation of capacity development activities according to indicators and milestones as established in the CDP. The monitoring is used to ensure that the activities comply with the budget and timeframe. Monitoring also provides crucial information to trigger corrective measures.

Operative evaluation analyses the quality of interventions. It provides important information which is used to improve the performance of repetitive activities or to appraise suppliers. Table 2.2 shows different evaluation areas and topics for the operative evaluation of capacity development activities. These can vary, depending on the characteristics of the intervention evaluated, for example the level of capacity development addressed.

Table 2.2. Operative Evaluation of Capacity Development Activities ¹⁰		
Evaluation area	Topic	
Content	 Quality of the need's assessment Appropriateness of the course length/content	
Trainer qualification	Quality of the training techniquesQuality of the facilitator's/trainer's approach	
Techniques and materials	Appropriateness of the mix of presentations, discussions and activitiesQuality of the learning material	
Location	- Quality of the facilities	
Follow-up support	 Quality and adequacy of the follow-up support 	
Selection of participants	Appropriateness of participant selection strategiesParticipant mix	

Different approaches for the evaluation of capacity development activities include:

- review of documentation related to the activity,
- observation of activities by expert evaluators,
- satisfaction forms, questionnaires to be filled in by participants or stakeholders,
- oral feedback from facilitators, trainers and participants, and
- interviews with relevant stakeholders. 11

2.2.2 M&E of Capacity (Strategic)

Strategic M&E provides information to the question, 'Are we doing the right things?' Strategic monitoring observes the use, the direct and indirect impact of capacity development activities. On a regular basis strength, weaknesses, opportunities and threats (SWOT) are monitored in order to adapt overall strategies to a potentially changing environment. This is a very complex process as different capacity development activities are combined with other interventions to achieve overall sector goals. In many cases it is not possible to attribute outcomes to one specific intervention. Therefore, the strategic M&E has to be incorporated into the overarching M&E framework used by the JWESSP.

¹⁰ Based on FAO (2012b), p. 73

¹¹ FAO (2012b), p. 73

CHAPTER THREE: EXISTING CAPACITY DEVELOPMENT INITIATIVES IN THE WATER SECTOR

Capacity development (CD) is at the heart of sector performance and attainment of the sector goals set out in the National Development Plan II (2016 - 2021, Sector Development Plan (2016 - 21), Sector Investment Plan (2009-2035) and Vision 2040, and supported by a wide-ranging policy and legal frameworks. For the water and environment sector, human resources are as crucial as financial resources. The importance of CD has long been recognized by the sector and considerable resources have been devoted to capacity development since the early 1990s. Much has been achieved as evidenced by a steadily improving sector performance.

Capacity development interventions in the water sector is being implemented by various stakeholder institutions, and these include the MWE which is the lead sector coordinating institution for CD, the NGOs under the Water Sanitation Umbrella Organization – Uganda Water and Sanitation Network(UWASNET), the Local Governments, the Private sector, Sector Agencies – National Water and Sewerage Corporation and the Academia.

Capacity Development in the Water sector is guided by the Water and Environment Sector Capacity Development Strategy (2013/18), which provides the overall framework for implementation of capacity development in the sector. The stated objective of the Sector Capacity Development Strategy is that: "The Water and Environment sector has the capacity to increasingly meet its targets and undertake its mandate benefiting from: a better understanding of its capacity demands, more effective means of delivering capacity in response to the needs and, and increasing ability to positively influence the enabling environment". The sector capacity development strategy is targeting three levels (Figure 3.1):

- **Enabling environment** (also institutional level): the system within which organizations and individuals function. It sets the scene and the rules for the interaction among organizations.
- **Organizational level:** the structures and processes that allow an organization to fulfil its objective. If these are functional, the capability of an organization will be greater than that of the sum of its parts.
- Individual level: the skills, knowledge, experience and attitude of the people within an organization. The three levels of capacity development are interlinked and interdependent. Therefore, activities always need to consider all three capacity development levels. Organizational, institutional and even political constraints are often at the root of disappointing capacity development results.

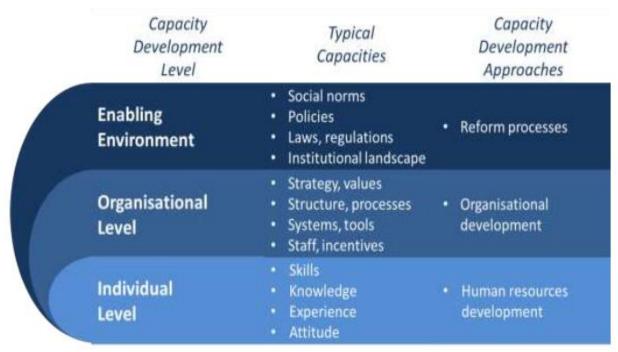


Figure 3. 1. Levels of Capacity Development

Below is a summary of ongoing capacity development initiatives being implemented by the various sector stakeholder institutions.

3.1 The Ministry of Water and Environment

Structurally, as earlier mentioned, the MWE has three Directorates, which include the Directorate of Water Development (DWD), Directorate of Water Resources Management (DWRM) and Directorate of Environment Affairs (DEA). Focusing on the water sector, both the DWD and the DWRM have three departments each. DWD comprises of Rural Water and Sanitation, Urban Water Supply and Sanitation (where NWSC comes in) and Water for Production. DWRM is comprised of Water Quality Department, Water Resources Regulation and the Department of Water Resources Monitoring & Assessment. In total, there are fifteen departments within the MWE.

Within the MWE, training of staff of the MWE is the responsibility of the Human Resources function of the ministry, while the overall responsibility for coordination of strategic capacity development at sectoral level is the handled by the Sector Capacity Development Division of the Ministry and structurally falls under the Policy and Planning Department, which is also responsible for operationalisation of the Sector Capacity Development strategy. The capacity development initiatives have span a number of years, however, in the recent past notable strides have been taken as observed below:

3.1.1 Key undertakings on capacity development from the Water and Environment Sector Joint Reviews

Key Undertakings for Capacity Development in the sector were endorsed by the Water and Environment Joint Sector Reviews that required MWE to develop, by the end of FY2014/15, a costed strategic plan for implementation of the Sector Capacity Development Strategy for the period 2013/14 – 2017/18. This was coupled by the undertaking that took into consideration confirmation of existing CD plans within the sector (including CD plans for the MWE sub-sectors, semi-autonomous institutions, local governments and civil society actors. Finalising the development of costed CD plans for the departments of the MWE as well as agencies and embark on implementation by end of FY 2016/17 and the subsequent year of 2018. Developing a strategy to systematically build the capacity of middle and lower level sector personnel in leadership and managerial skills to address emerging sector demands by the end of FY 2016/17.

3.1.2 Development of Costed CD plans

The operationalization of the Water and Environment Sector Capacity Development Strategy, involved development of the capacity development plans for sub sectors within the Water and Environment Sector, including departments of the MWE and agencies. To date the status of development of CD plans stands as follows:

- Under the Skills Development for Human Resources (SDHR) project that is funded by the Belgian Technical Cooperation (BTC currently known as Enabel), Organizational/individual capacity needs assessment was conducted and CD plans have been developed for five departments of the MWE and one agency, Uganda National Meteorological Authority (UNMA). Implementation of the CD plans currently ongoing through delivery of short-term performance training programs based on the identified gaps
- Under the GIZ/ENWASS support to the water and sanitation sector, Capacity Needs Assessment and CD plans have been developed for the Urban Water Supply and Water Resources Management subsector. Short term performance related training courses were conducted for staff of the DWRM in 2017.
- Development of CD plans for the Rural Water Supply and Sanitation subsector is currently ongoing.

It is important to note that the order of getting the capacity development plans done was based on the priority of the two development partners. Consequently the creation of the capacity development plans under took varied methodologies as well as different levels of analysis e.g. the capacity development plans supported by BTC were geared towards 2 levels of analysis of capacity development namely individual and organizational level while the CD for the Water resources Management subsector additionally dealt with the enabling environment thus the need to align the capacity development plans developed to the Water and Environment Sector Development strategy that focuses on the three levels of capacity development of Individual, Organisational and Enabling Environment.

In order to ensure that the Capacity Development plans so far developed are aligned to the Water and Environment Sector Capacity Development strategy, and address the three levels of Capacity Development, a consultant has been engaged to review, harmonize the developed CD plans and attach a cost to the consolidated capacity development plan. The consultant will work in close collaboration with the Sector Capacity Development Division of the MWE.

3.1.3 Other Capacity Development activities coordinated under the MWE

Following the difficult times Uganda went through in the 1970s and 1980s, there was apparent lack of manpower to implement sector activities by the early 1990s when the development partners resumed active support to the country. This was exacerbated by the fact that there was a big gap between the knowledge and skills the training institutions were providing and the actual requirements of the sector employers, as confirmed by the Training for Real (TFR) study.

Hence, with the support of donors, the MWE developed a one-year training program targeting fresh graduates of engineering, geology, chemistry and other academic disciplines directly required for the implementation of water and sanitation sector activities. Under the programme in question, students who have pursued the above courses are recruited and attached to ongoing projects for a period of none year where they undergo on-the-job training aimed at equipping them with the technical skills required in the sector. Thereafter they are off loaded to the labour market for sector employers to access quality manpower. To_date, the program has run for over twenty (20) years and more students were being enrolled for the training. Some of the sector employers who have benefited from the programme include the MWE itself, Local Governments, development partners, NGOs, private contractors to mention but a few. However, it is important to note that most of these are taken by the centre. Noteworthy is that most of the current senior officers in the water sector across the ranks up to commissioner level, benefited from this program. Through this model, knowledge is created and transferred and this is how part of the gap in knowledge and capacity development has been bridged in the sector.

Other capacity development activities that are implemented by the MWE and are aimed at creating knowledge include support to staff in the MWE, and other stakeholder organizations to pursue further studies at Masters level and other post degree academic qualifications. There are also specific tailor made short courses aimed at performance improvement. The institutionalization of the preparation of Annual Sector Performance Reports as best practice in the documentation of sector performance has greatly contributed to creation and sharing of knowledge in the sector. The process of writing the sector performance report involves all stakeholders and originates from the local governments where primary data is generated.

3.1.4 Capacity Development Initiatives undertaken by Technical Support Units under the Rural Water and Sanitation Subsector

The country has been undergoing structural changes where new districts have been created over time. The creation of new districts followed the post-1993 decentralization program where it was believed that the creation of more local government units provided more room to stimulate

development and service delivery at local level, there by contributing to closer proximity between communities and local governments (Visser, 2011).

In the water sector, whenever, new districts are created, the MWE takes the lead to ensure that the newly created districts get staff and equipment to perform specific sector related duties and responsibilities. However, much as the MWE tries to provide the required capacity to the newly created units, this comes with some challenges as will be presented in the section addressing factors constraining the capacity development initiatives in the sector.

In order to address the ever-emerging capacity requirements for the local governments arising from the continued creation of new districts, the MWE established Technical Support Units (TSUs) as decentralized regional structures through the rural water subsector to provide capacity to the local government. The primary responsibility of the TSUs is build the capacities of the staff the district water offices and other relevant district personnel involved in the delivery of water and sanitation services as well as provide technical back up support. Such capacity development support include provision of technical support to the District Water Officers in the preparation of work plans, drawing Terms of Reference (ToR), preparation of documents when it comes to construction of water systems and procurement processes, construction of boreholes, protected springs and other water supply systems among other duties. TSUs offer training to water officers, community development staff, health assistants and lower cadres. Majorly, its target group is the district local government. On quarterly basis, TSUs together with the district staff monitor progress and remind people to give attention to critical areas.

Much as it the duty or role of the District Water Officers to supervise and ensure that the boreholes are maintained according to the set standards by the MWE, it is the responsibility of the TSUs to ensure that these water systems are maintained to the set standards. To meet this demand, the TSUs staffs go to communities and carry out post checks by talking to the members and establishing whether the existing sources have Water User Committees (WUC), whether the community have and can easily access hand pump mechanics and how often and when repairs are done.

3.1.5 Capacity Development Initiatives undertaken by the Appropriate Technology Center (ATC)

The Appropriate Technology Centre (ATC) is a research arm for the Ministry of Water and Environment, operating within five objectives, which include;

- Undertaking innovative applied research and development in appropriate technologies and approaches for water and sanitation,
- Carry out capacity building for sector actors,
- Build up the profile of appropriate technology for sustainable water supply and sanitation options by popularizing the appropriate technology practices,
- Accelerate public and or private investment through innovative financing mechanisms and demonstration of acceptable innovative practices and
- Continuously identify challenges facing the adaptation of appropriate technology in the water and sanitation sector.

Appropriate Technology Centre is currently structured in form of a three-year project set up by the Ministry of Water and Environment and it is 100% funded by the MWE. Besides, the ministry has played a role in attracting external funding for example acquiring donor support from World Bank.

ATC offers capacity development to individuals and at organizational level. For example, trainings programs offered target technicians who handle construction and installation of water schemes, technocrats for example local and central government engineers, social workers and give training to NGOs with guidance on project planning and implementation.

Much as the ATC was started as a project, there is a possibility to expand it into a National Water Research Institute to address capacity development needs and promotion of appropriate technologies to ensure sustainability of water schemes. Therefore, it is expected to serve as a training hub for water professionals in the near future.

3.1.6 The Water Resources Institute (WRI)

The Ministry of Water and Environment (MWE) has established a Water Resources Institute that was officially launched by the Hon. Prime Minister of the Republic of Uganda in March 2018. It is anticipated that the WRI will address the current and emerging water resources related issues in the country and globally. The institute is earmarked to be center of excellence that will provide cutting edge applied research and training, delivers continuous professional skills development across all levels in water resources management and development, and serves as a neutral place for dialogue and outreach on water resources related issues. It is envisaged that WRI will later evolve into a semi-autonomous entity whose major functions are to develop policy, legal, social, technological, and scientific expertise in the water resources sector, plan, facilitate, and conduct research responsive to national and regional needs, promote technology transfer and the dissemination and application of research results to appropriate users, provide for education and training of scientists, engineers, and students as water resources professionals through their participation in research, assist public and private interests in the planning, regulation, conservation, development, and utilization of water resources through outreach programs and provide opportunities for research grants to be awarded by organizations under national, bilateral, multilateral, and international arrangements.

The WRI is anchored under four (4) pillars, namely applied training, applied research, dialogue and outreach. Since the official launch in March 2018, the WRI has hosted the first ever Uganda Water Week in March 2018 where eight short training events were conducted, in addition to, 3 dialogue sessions were organised and 4 field visits that were organised on the side-lines of the event. Seed capital to kick start the WRI has been provided by the World Bank through the Republic South Korea Trust Fund, and already a team from K-Water Institute in South Korea has visited the WRI to provide guidance on the set up and operationalisation of the institute.

3.2 Capacity Development activities implemented by the NGOs

The Uganda Water and Sanitation NGO Network (UWASNET) is the national umbrella organisation for Civil Society Organisations (CSOs) in the Water and Environment sector. UWASNET is crucial in helping government realise its targets of alleviating poverty and achieving Millennium Development Goals (MDGs) through universal access to safe, sustainable water and improved sanitation. UWASNET plays this vital role in partnership with other key sector players such as the Government of Uganda, Development Partners (DP's) and the private sector.

Over 200 NGOs are working in water supply and sanitation. UWASNET was established in 2000, with the aim of strengthening the contribution of NGOs/CBOs in achieving the Water and Sanitation Sector goals. Currently, it has an active membership of over 170 active NGO and CBO. There is a strategic framework for cooperation between local Governments and NGOs for water and sanitation. It guides Local Governments and NGOs on how to jointly plan and implement community mobilization/software activities with respect to water supply and sanitation. It also provides guidance to districts on how to procure NGOs to undertake software activities.

UWASNET Network (UWASNET) coordinates Non-Government Organizations (NGOs) and Civil Society Organizations (CSOs)/Community Based Organizations (CBOs) involved in the provision of water and sanitation services and also has the core function of capacity development for sector CBOs. However, the MWE oversees the capacity development activities of all the stakeholders with the water and sanitation sub- sector. The MWE provides financial support to UWASNET to carry out capacity development for the Civil Society Organizations (CSOs).

3.3 The capacity development initiatives in Higher Education Institutions (HEI) in Uganda

The bulk of the manpower that feed into the water and sanitation workforce is produced by the Higher Education Institutions (HEIs) in Uganda. To date there are a total of 16 public institutions and 40 private universities that offer undergraduate and master's degree courses relevant to the water and sanitation sector, as well as more than 60 vocational technical colleges that offer diploma and certificate for technicians. Not all of these colleges and universities offer water related courses although at the time of the desk review, the exact number of universities and colleges offering technical training in the water-related programs was not known.

The Ministry of Water and Environment was also involved in the Training for Real (TFR) project in 2005, implemented during the period 2005/6 by the Water, Engineering, Development Centre (WEDC) of the University of Loughborough, with support of the Directorate of Water Development. The objective of TFR project was "to motivate HRD and training providers to be responsive to the demands of employers so that professional development of water and sanitation sector staff is relevant." The project established as one of its findings that currently there were no formalized links between 'supply' and 'demand' institutions. Therefore, sector organisations hardly played any role in initiation, development and evaluation of courses offered by HEIs. There were few cases where HEIs had developed tailor-made continuous professional development courses for the sector organisations.

3.4 Capacity development initiatives in the Private Sector

Although the bulk of the construction project works, including design and construction in water supply and sanitation under local and central Government is undertaken by private construction firms, they play limited role in capacity development of sector personnel. However, there is a new initiative by the African Development Bank requiring introduction of apprenticeship programs for skilling the youths under projects funded by the Bank. The modalities for implementation of the above capacity building initiative is yet to be finalized. Funds for this program will be embedded in the quotations submitted by the consultants and it will be theire responsibility to manage the stipend for the youths engaged under the program. This is another sector which is yet to be maximized in as far as capacity development is concerned.

CHAPTER FOUR: PRIORITY CAPACITY DEVELOPMENT GAPS AND CHALLENGES IN THE WATER SECTOR

4.1. Priority capacity development gaps

The water sector in Uganda is comprised of two sub-sector: the Water & Sanitation sub-sector; and the Water Resources Management sub-sector. In line with the Sector Capacity Development Strategy guidelines, capacity gaps in the water sector have been identified based on where it is situated (anchored) within the 3 levels of capacity development (individual, organisational organizational and enabling environment). In the context of this desk study capacity gaps have further been categorized according to the two professional level – either Junior or senior professional. This chapter presents the context of capacity gaps in the water sector and the gaps at sectoral and individual levels.

4.1.1 The Context of Capacity Development in the Water Sector

As indicated in the earlier chapters, the water sector comprises of various categories of staff who occupy different levels in the organogram, and play different roles depending on their position in the hierarchy. The junior professionals occupy lower positions in the hierarchy, and are largely responsible for operational activities, hence their capacity gaps relate to technical skills, while the senior professionals occupy higher positions in the hierarchy therefore their capacity gaps relate to managerial and leadership competencies. A description of the capacity gaps is given in the table below;

Table 4. 1 Description of the Capacity gaps

Capacity gap	Description of the Capacity	Affected staff
	gap	
Technical skills	The gap relates to the technical competences the MWE staff have and how these skill sets are complete, up to date and enable personnel to perform their assigned duties. Important to the consideration of this gap is the fast changing environment in which the MWE operates and new and urgent challenges that continuously emerge. These changes not only relate to water resource issues on ground but also to technological developments, communication tools and others. The technical skills are referring to the theoretical knowledge as well as the practical experience.	Technical staff located at the regional structures Support Staff
Leadership and management	The gap relates to the specific personal skills to execute management roles in an effective way (mentoring, coaching, team building, communication, contract management, and others). The skills can be based on theoretical knowledge as well as practical experience.	-

Performance Management

The gap relates to the ability of the organization to ensure that its Vision and Mission are clear, aligned and well communicated and known. Based on the Vision and

Mission a full and complementary set of indicators needs to be identified that will assure performance monitoring.

The organization requires a set of well established procedures and processes and detailed scoping of the expectations it has for each member of staff (including up to date job descriptions). These procedures and processes need to be focussed and quality assurance on service delivery and needs to offer assurance of continuous progress.

The support processes need to be recognised as a part of the overall functioning of the organization and care must be taken to ensure they are performing.

Information and knowledge management

The organization continuously gathers information and manages it in such a way that it serves learning and communication purposes. This relates to the way in which data is collected, stored, availed and disseminated.

The organization needs to safeguard its institutional memory and create a space for reflection, sharing, debate,

Senior leadership team
(Senior leadership located at the centre as well as team leaders at regional structures).

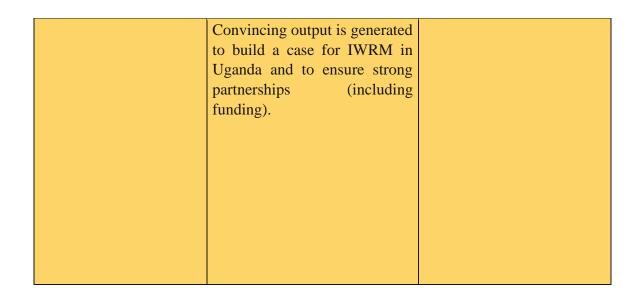
Technical staff located at the regional structures and the centre.

Support staff

Senior leadership team
(Senior leadership located at the centre as well as team leaders at the regional structures).

Technical staff located at the regional structures and the centre.

	anticipation and knowledge building.	
Catchment Management	The gap is related to the provision of support (methodological, technical and others) to CMC members to ensure they can successfully drive the Catchment Based WRM processes. This includes the capability of mobilizing the necessary funds. The CMP are harmonised with other plans and remain an up to date basis for interventions within the catchment. The MWE is able to identify and monitor the impact from its CMP efforts and ensures they are used into tools capable of convincing partners within (and outside) the catchment.	Senior leadership team Technical staff located at the regional centres and the centre.
Communication and stakeholder engagement	The MWE shares information (strategy, tools, impact and others) with internal and external stakeholders in order to ensure a "buy in" into its own Vision and Mission. Effective coordination and collaboration is stimulated and strong synergies are created in between sectors and other deconcentrated and decentralised government structures.	(Senior leadership located at the centre as well as team leaders at the regional



4.1.2 Capacity Gaps at Organisational/Sectoral level

The capacity development priorities at the <u>organizational level</u> also reflect sub-sector priorities but differentiated depending on the particular role and status of the organization in question; for example some districts will have greater needs than others or a department at head office will have different needs than a de-concentrated unit. The use of Results Orientated Management approaches will help reveal the organizational level priorities. These priorities will be reflected in Capacity Development Plans prepared at organizational level.

During the process of developing the Sector Capacity Development Strategy, stakeholders discussed the priority capacity gaps at sectoral level and below, in Table 4.2, is the summary of the gaps identified;

Table 4. 2 Capacity development gaps at organizational/sectoral level

Sub Sector	Performance Gaps	Priority CD Outcomes
Rural Water Supply and Sanitation	 Functionality of water facilities Low coverage of water and sanitation facilities Increased unit costs for service delivery at the district level Low levels of sanitation and hygiene 	 Rural Water supply users capable and empowered to maintain their systems The supply chain for spare parts meeting demand Sector effectively regulates the quality of materials on the market Sector player, especially in sanitation cooperates and coordinate activities District water offices are fully operational

Urban Water supply and Sewerage	 Limited supervision capacities of WSSBs Weak regulation of urban water and sewerage services Increasing costs of production per/m3 Absence of an integrated approach to ensure functionality of sanitation services 	 Performance contracts are effectively regulated with rewards for performers and sanctions for noncompliance Management contracts are effectively supervised by competent WSSBs Business operation areas for small scale operators facilitate attainment of economies of scale Functional public sanitation facilities, storm water and solid waste management in place Enforced sewerage and waste water discharge regulations A coherent asset Management System in place, dry zone are limited and NRW controlled Improved water quality monitoring
Water for Production	 Low functionality of Water for Production facilities Low coverage of Water for Production facilities Increasing unit costs for service delivery Feasibility studies that don't optimize economic and social use of water resources 	 Well-functioning WfP facilities operated by appropriate management organization Local Government authorities fulfilling their water for Production sub sector mandate National level institutions effectively cooperating in fulfilling their mandate for WfP sub sector Private sector effective in planning, implementation and management of WfP services delivery
Water Resources Management	 Deteriorating water quality Water Resources not managed under an integrated framework 	 Awareness of WRM enhanced at all levels Stakeholders at alllevels collaborate using catchment based IWRM

Low compliance with Effective network and capacity to monitor and water abstraction and discharged permit assess water resources conditions quantity and quality Inadequate Water Resources water monitoring (including resource regulations reservoir and dam safety) and assessment are enhanced.

The capacity development priorities at individual level centre on the individual, their qualifications and experience compared to the requirements of their job. These priorities will generally be expressed as the skills, knowledge and attitudes expected of the individual compared to what they are able to deliver. Annual performance appraisal will be the main tool through which the CD priorities at individual level will be identified and addressed.

4.1.3 Priority capacity development gaps for junior level professionals

The junior level professionals are the "foot soldiers" in the water sector, and therefore responsible the operational and practical implementation of sector activities such as supervision of construction of water infrastructure, catchment protection etc. The recent capacity needs assessment exercise conducted in the sector reveal that their capacity gaps are largely in technical skills related areas, as highlighted below.

Table 4. 3 Capacity gaps at individual level – Junior Professionals

Directorate	Baseline Competencies Required	Critical Skills Gaps
The Directorate of Water Development (DWD)	 Operation and Maintenance of water infrastructure Mobilisation of communities for water and sanitation services Negotiation and Diplomacy Design of low cost water technologies for service delivery at the district level Design of bulk water supply infrastructure Design of water for production/irrigation systems 	 Design of bulk water supply infrastructure Design of low cost water technologies for service delivery at the district level Design of solar water pumping systems Design of borehole and water well pumping systems Borehole Drilling and supervision Borehole construction and Pump testing Leadership skills

	 Development Communication Project planning and management Quality Control and Standardisation Report Writing and documentation Local Government Operations 	- Funding proposal writing/preparation
The Directorate of Water Resources Management (DWRM)	 Mobilisation of communities for water resources management Water Quality Management Integrated Water Resources Management Participatory Assessment and Planning Micro Catchment Planning Low compliance with water abstraction and discharge permit conditions Water resource monitoring and assessment Public Relations and Advocacy Water Catchment Based Planning and Management Communication and Stakeholder Engagement 	 Integrated Resources Management Water Catchment Based Planning and Management Stakeholder Analysis Community mobilisation/Engagem ent Laboratory quality systems Dispute/Conflict resolution Environmental law Water Law Report writing Catchment based planning for the Local Government personnel Enforcement of Water abstraction and discharge Micro Catchment planning Participatory catchment planning Water Resources Planning and Allocation Mainstreaming Climate Change Modelling and Forecasting Water Information Management

	- Environment Im	pact
	Assessment(EIA)	
	- Environment	and
	Social Safeguards	
	- Monitoring	and
	Evaluation	

4.1.4 Priority capacity development gaps for senior level professionals

In the context of the water sector in Uganda, senior professionals refer to sector personnel who have served in various job positions and have acquired work experience for at least over five years after graduation in their respective job functions. These category of professionals are normally responsible for supervision of the junior professionals and their require managerial and leadership skills. The recent CNA identified the following capacity gaps for the senior professionals in the sector as outlined in the table below:

Table 4. 4 Capacity gaps at individual level – Senior Professionals

Key Functions	Baseline Competencies Required	Critical Skills Gaps
The Directorate of Water Development (DWD)	 Leadership and Management Negotiation and Diplomacy Stakeholder Analysis Advocacy and lobbying Development Communication Project planning and management Financial Management Density of demand and economy of scale Private Public Partnership(PPP) Quality Control and Standardisation Report Writing and documentation Procurement and Contract Management Water Regulation Business Planning/Tariff Management Asset Management Development of sector policies, strategies, 	 Resources mobilization, Negotiation skills, Networking skills, Advocacy, community mobilization skills, Report Writing and documentation Procurement and Contract Management Succession Planning Preparation of bankable project proposals Policy formulation and analysis Monitoring and evaluation Budgeting and Budgetary control Managerial skills Communication skills Financial management skills Motivational skills Administrative law Leadership skills

	 Policy formulation and analysis Strategic Planning Strategic HRM Succession planning Coaching & Mentoring Output oriented budgeting Team building Performance Management Speech writing and presentation skills Communication and public relations Change management skills Strategic planning and coordination 	- Funding proposal writing/preparation
The Directorate of Water Resources Management (DWRM)	 Leadership and Management Negotiation and Diplomacy Water Quality Management Development of National Water Quality Standards and guidelines Integrated Water Resources Management Trans boundary Water Resources Management Low compliance with water abstraction and discharge permit conditions Public Relations and Advocacy Resource Mobilisation Stakeholder Analysis Advocacy and lobbying Development Communication Project planning and management Communication and Stakeholder Engagement Financial Management Development of sector policies, strategies, Policy formulation and analysis Strategic Planning Strategic HRM 	 Negotiation and Diplomacy Integrated Water Resources Management Trans boundary Water Resources Management Leadership and Management Water Catchment Based Planning and Management Stakeholder Analysis Speech writing and presentation skills Communication and public relations Change management skills Strategic planning and coordination Financial Management Community mobilisation/Engagement Laboratory quality systems Preparation of bankable project proposals Lobbying and advocacy Dispute/Conflict resolution

- Succession planning
- Coaching & Mentoring
- Output oriented budgeting
- Team building
- Performance Management
- Speech writing and presentation skills
- Communication and public relations
- Change management skills
- Strategic planning and coordination

- Environmental law
- Water Law
- Report writing
- Management of meetings
- General Management
- Change management
- Development communication
- Catchment based planning for the Local Government personnel
- Enforcement of Water abstraction and discharge
- Micro Catchment planning
- Participatory catchment planning
- Water ResourcesPlanning and Allocation
- Mainstreaming Climate Change
- Modelling and Forecasting
- Water Information Management
- Environment Impact Assessment(EIA)
- Environment and Social Safeguards
- Monitoring and Evaluation

4.2 Capacity Development challenges for junior professionals and technical professionals

Experience has also shown that <u>delivery of capacity is not a quick fix</u> and that long term programmes have tended to produce better results (MWE, 2017). Whereas capacity development at the individual level has often been impressive through projects, once the projects stopped the organizational capacity built up was dispersed. Under projects, there has sometimes been a duplication of efforts and as a consequence for capacity development to be unevenly distributed.

The <u>technical and vocational education sector</u> is in crisis and has suffered from chronic shortage of resources. The focus has been on university level qualifications leaving the technician and artisan levels with inadequate training. Although excellent training material has been built up in the sector, this is dispersed and not easily found or accessed.

The capacity development challenges in the Water and Environment Sector were discussed into its sub-sectors based on the vote functions:

- Decentralization challenges
 - Creation of new districts in Uganda led to fragmentation of existing capacity and therefore created a new deficient in the capacity to perform the required tasks in the water sector.
 - o District authorities do not prioritize the water and environment sector.
- Incomplete public sector reforms
 - Civil service conditions which are characterized with low pay and high allowances distort the development priorities of the sector.
 - o Vacancies are not normally filled-in on time due to delays and freeze on staff hiring.
 - o Slow administrative routines affecting core tasks such as procurement.
- Oversight weakness and political inconsistency
 - o Inconsistent messages on cost recovery and enforcement of regulations.
 - o Interference in contract tendering and supervision.
 - Weak governance, oversight and tolerance of corruption.
- Cross-sectoral coordination
 - o Institutional dispute over mandates and resources (which affect cooperation).
 - o Inadequate mechanisms for coordination across institutions.
- Civil society
 - o Watch dog role of civil society is underfunded.
 - o Information flow to civil society is inadequate.

4.3 Challenges related to training local training institutions for sector man power

The TFR project that was implemented during the period 2005/6 by the Water, Engineering, Development Centre (WEDC) of the University of Loughborough, with support of the Directorate of Water Development, and whose objective was "to motivate HRD and training providers to be responsive to the demands of employers so that professional development of water and sanitation sector staff is relevant.", established as one of its findings that currently there are no formalized links between 'supply' and 'demand' institutions. Therefore, sector organisations hardly play any role in initiation, development and evaluation of courses offered by HEIs. There have been few cases where HEIs have developed tailor-made continuous professional development courses for the sector organisations. Academics in the HEIs identified the barriers to being responsive to the needs of the sector as mainly inadequate resources, a high student/lecturer ratio, and poor enabling environment. As a result, the stakeholders in the sector reported many training topics in which they are deficient.

The report on the base line study on Water Education in Uganda that was conducted in 2009 amongst sector HEIs providing man power to the sector, established among others that the quality of the graduates was more theoretical and as a result, these lacked the technical capacity to operate and manage the established water schemes. One of the reasons behind this gap in capacity development is limited communication between the sector agencies and the academic institutions

on the sector requirements, which, would possibly help in the structuring of the courses to address some of the technical requirements.

Among the technical institutions visited during the baseline study mentioned above, included the Elgon technical Institute, Bushenyi and Lira. In these institutions the capacity of the lecturers and the institutions themselves was found to be largely inadequate to create and transfer knowledge. The teachers themselves do not have enough capacity to teach the students, as the majority of them are products of the communities where the technical institutions are located. In a scenario where a lecturer is born in the same village, attends all the formal education institutions right from primary and secondary, graduates from the technical institution located in his village and remains to lecture at the same training institute, the global outlook becomes very limited and grossly inhibits knowledge creation and transfer.

Besides, the equipment used for training in High Education Institutions(HEIs) is outdated, obsolete and run down, as evidenced by such facilities in Elgon Technical Institute, where training equipment that were procured in the 70s had even broken down. Although recently, a project under MoES provided some equipment to technical institutions, in the absence of technical capacity to operate them, these were not being used. These among other challenges have dragged the progress of capacity development in the sector.

Shockingly, from one of the interviews, it was found out that some of the students have not been exposed to the working world. Sometimes a student of engineering expected to graduate the following year does not know what a gravity flow scheme is, has never seen a borehole, does not know what a spring is yet this is the person expected to technically run the construction and management of such water schemes say at district level. This level of inefficiency has created capacity development gaps in the water sector.

That aside, it had been evidenced that of recent, there are many students getting first class degrees compared to the past. Anxious to find out what was the reason behind this, it was observed that one of the possible reasons could be that the lecturers use the same notes over and over again and as such, there is limited room to create new challenging concepts and ideologies that would trigger the students' thinking beyond their imagination. This has left the students with the option of being exposed to the same knowledge over and over again thus limiting their ability to meet the increasing professional demands in the water sector.

The lack of formalized links with the water sector organisations limits the academic institutions to explore the skills required by the sector and thus design courses that address actual sector requirements. Because of this, most higher education institutions provide their students with theoretical skills as a result, the graduates lack the technical capacities required to manage and operate water schemes. Besides, given the fact that most lecturers are not encouraged to regularly renew their lecturing materials, these materials rarely provide new concepts and insights. This is exacerbated by the fact that very few lecturers engage in applied research that is relevant in addressing water sector challenges. This lack of encouragement and interaction of staff with the water sector is reflected in the limited ability of graduates to meet the increasing professional demands of the sector.

In some of the technical institutions, the teachers are faced with inadequate capacity to teach the students, as the majority of them stem from the communities where the technical institutions are located. In a situation where a lecturer is born and raised in a specific place, attends all his/her formal education institutions there, graduates from the local technical institution located in the same place and remains to lecture at the same training institute, the global outlook becomes very limited and grossly inhibits knowledge creation and transfer. That aside, some of the technical institutions lack the capacity to deliver well-equipped graduates. For instance; some of the facilities used for training in the Elgon Technical Institute were procured in the 70s and have since broken down.

Comments were made about extensive abuse of capacity development and training initiatives. Generally, most staff seem to view training and capacity building as an additional source of income. This perspective is encouraged by the poor remuneration of civil servants in Uganda. In most cases, training is supply-driven without a link to a capacity development needs assessment. This negatively affects the effectiveness of such interventions. In addition, the absence of an effective coordination mechanism does not provide room for organisations providing capacity development to know what has been done, by whom, how and for whom, thus leading to duplication of efforts and wastage of resources. Moreover, cross-cutting and cross-sectoral issues are also a challenge to capacity development. This is the case where water sector performance depends on inputs from other sectors. However, the responsibility of who should train staff from other, related sectors is not defined, even though their inputs are relevant for the overall sector output.

4.4 Challenges related to political economy

From the interview session, the other factor contributing to this is the political economy in the country. The rapid privatization and commercialization of the education sector in Uganda in the last 20 years has largely inhibited the chances of students from rural and poor backgrounds (who constitute the majority of the student population) from accessing professional courses such as engineering. The majority of the students who make it to these professional courses are therefore children of the rich who have not lived outside the urban areas and therefore rarely appreciates and attaches value to the challenges faced by the rural communities in accessing water and sanitation services. As a result, their knowledge of the various water technologies is limited and largely confined to domestic piped water supply, as they may not even have the time and interest to discover what is happening beyond their areas of residence say in the rural and slum areas. As such, when most of them are sent to the field during internship /one-year graduate training programs organized by the MWE, they run away because they are not used to the harsh environments in the country side. This hinders capacity development.

At the individual level, both at the central and local government levels, the MWE organizes specific tailor made short courses aimed at improving the capacity of the central and local government personnel involved in the implementation of sector activities, while at organizational level within the local governments the ministry provides resources to help in the implementation of activities and enabling working environment by equipping the offices with tools such as computers, furniture, district vehicles among others. However, when it comes to implementation of duties, sometimes the DWO are not in position to undertake their responsibilities. This is

sometimes attributed to some politicians making use of sector specific district resources for example cars for other official activities or personal errands, for example during funerals in villages. This affects performance negatively and as such, as in this particular case, the power the politician has impedes capacity development.

Besides, the ministry provides guidelines for the allocation of water sources but sometimes the politicians interfere with the guidelines and allocate water sources according to their own will. To make matters worse, despite the powers the politicians have in influencing some of the sector activities, they are nowhere in the official structures of the sector yet they have a role to play in service delivery.

As previously highlighted, the three key line ministries i.e. MoH, MWE and MoES, are responsible for sanitation related activities in the country. Through an interview, besides the coordination challenge, prior to the annual sector reviews, the key stakeholders are invited. However, not all stakeholders come on board to share experiences and discuss the way forward. As noted by the interviewee, there used to be technical forums where staff from the three ministries would come together and share experiences. At the time of the research, this arrangement was not working well. Around 2003 (almost ten years ago), the MWE used to have an officer from the MoH seated in the rural water supply department in the Directorate of Water Development. However, at the time of research, there was no any representative from the MoH or MoES. This has gradually affected the coordination of these ministries. Besides, it also makes outsourcing for sanitation funds more difficult.

During one of the interview sessions, it was noted that there is massive abuse of capacity development and training initiatives. Most staff see training and capacity building as alternative sources of income, due to the poor remuneration of civil servants in the country generally. In most cases training is haphazard, with no details on the capacity development needs assessment, and this affects the capacity development methodologies used and thus the output. There are no defined mechanisms for follow up to study the extent of knowledge implementation and identification of gaps in capacity development initiatives.

The absence of effective coordination mechanism for CD in the sector greatly contributes to duplication of efforts and wastage of resources. Sometimes, the different organizations undertaking capacity development do not communicate or share information on approaches being used and their specific target groups, let alone the topical areas of intervention. As a result, the members involved in extending capacity development do not know what has been done, how, by whom and for whom. This has contributed to duplication of efforts. In most cases, the target groups are the same and as such it becomes difficult to measure which capacity programme has contributed and to what extent. Even then, resources are also wasted. This duplication and lack of coordination in CD interventions also extend to sector donors, who sometimes provide resources for capacity development to different stakeholders within the same sector but targeting the same group.

In the MWE, at the moment the formal systems developed for transfer of knowledge is still weak. Therefore, most of the capacity development and knowledge transfer take place informally. For example; during an interview a respondent explained that, since he joined the ministry in 2007, he

has gained a lot of experiences through informal contacts at workshops, seminars and interacting with advisers, development partners as well as colleagues. As such, it was noted that capacity development sometimes happens spontaneously. Given the fact that it is sometimes more informal and thus a gradual process, this is not usually taken into account by most people. People have fixated minds that if they do not travel for a course or seminar, then there is no capacity built. This limits their ability to search and develop personal knowledge within the working environment. This is worsened by the fact that it is difficult to quantify the contribution of the capacity developed.

Sometimes subordinates are not interested and thus not willing to learn. As noted by the respondent, sometimes when a staff is asked to check or read through a particular report and thereafter send it to the concerned members, one thinks it is 'rocket science and this is very dangerous'. Most people do not have a reading culture. This limits knowledge creation and transfer.

Besides, the remuneration in the government is extremely very poor. One cannot easily survive on the official monthly income. In some cases, one has to 'water down' and adulterate the quality of services provided. For example if one has been asked to design a piped water supply system using a certain pipe, much as he may have the individual skills to perform the duty, personal circumstances may force him to buy a lower quality or smaller pipe so that he can save some money for personal gain. This kind of behaviour hampers the proper implementation of the knowledge and skills acquired.

Sometimes the government working environment is not conducive for capacity development initiatives because there is limited support provided for knowledge creation and transfer of learning. To boost capacity development in the sector, the government has put focus on Output Oriented Planning and Budgeting, and Open Performance Appraisal approaches. Under these arrangements, performance targets are agreed upon. When the person is under performing the activities to be done are agreed upon. However, these approaches lack implementation. In addition, there are no sanctions (both positive and negative). As the interviewee stated, even when one works well, nothing is given in form of appreciation for the inputs. As a result, most people do not take performance as per agreed targets serious, except those that are very keen. This has in a way affected capacity development.

One of the major challenges highlighted is cross cutting issues where the sector performance depends on the inputs of other sectors. For example, for the district to implement its activities there is need for services to be procured. The staff responsible for the management of the procurement process are not members of the MWE itself, these belong to the MoFPED. Besides, the contract committees, district financial officers, planning units, and health officers among others are also not staff of the MWE but their inputs are needed for the overall performance of the water sector. However, sometimes they are not trained to undertake their responsibilities and this affects the overall output. The challenge is, whose responsibility is it to train staff from other entities that are relevant to the sector? Besides, the centre is also not aware of what their parent ministries are doing for them in terms of capacity development. The cross cutting activities in a way hamper the implementation of the capacity developed.

Bureaucracy! This was highlighted as one of the key factors limiting accessibility of resources to implement capacity development interventions. While in the private sector one can come up with an idea and easily gets support and the resources to implement, this is not the case in the government. The protocols to be followed are too many accompanied with too much questioning. In the end, even if one had good intentions, one loses the morale to pursue such goals.

In most cases, the government does not have the human resources and tools to facilitate transfer of learning. Some of the staff members have been exposed to modern tools for the implementation of water and sanitation activities, however, on the ground, the tools to enable the transfer and utilization of the acquired knowledge at the work place are not available.

4.5 The way forward

In order to address some of the challenges related to capacity development in the sector, the MWE recently developed a Sector Capacity Development (SCD), Strategy with the support of the Development Partners (DPs). The Sector Capacity Development document provides the guidelines to streamline implementation of SCD activities during the period 2013/18. The document is expected to address the challenges related to coordination, standardization of training materials and harmonization of training methodologies as well as donor support.

Although at the moment the system for knowledge transfer in the ministry is not well defined, the SCD provides opportunity for development of clear guidelines for knowledge creation and transfer. For example, in cases where a staff member goes for a workshop or any form of training, one is expected to write a back to office report highlighting the objectives of the training, how it was conducted and benefits and challenges. This is followed by a one-day presentation.

Sometimes there is inadequate capacity at the implementation level. During monitoring and supervision, sometimes it is found out that the districts are not well staffed. This has been worsened by the continued splitting of districts. The interviewee said, "You train staff today, tomorrow the district is sub-divided. The district staff is divided into half. This creates vacant posts especially where there was one officer for example the District Health Officer (DHO) and the District Health Inspector (DHI). To cater for the vacant posts, you upgrade the person who has been at the lower cadre. A man who served as a sub-county officer becomes the district officer. But the question is, does he have the necessary capacity to perform duties?" As a result, there is need for trainings to equip the staff with the required skills. However, due to limited funds this is not always done.

Staff leaving for greener pastures: You build capacity today and the person leaves tomorrow for better opportunities. While this may not necessarily bad for the overall sector, especially in cases where such staff remains to work within sector organizations, it certainly inhibits CD at the district level. As a way forward, there is need to improve the remuneration - increasing people's salaries. There is also need to create an enabling environment for improved service delivery. People are generally not motivated. For example, at the local level people do not have transport. As stated by the respondent, when a staff in such a state finds an NGO that can give him a motorcycle or a bicycle, he will leave. Therefore, there is need to provide incentives to motivate people.

Inadequate exemplary leadership: Some of the local leaders lack sanitation facilities. As noted by the interviewee, sometimes you go to the Local Council and find out that the local leader does not

have a toilet. How do you move around with such a person to mobilize the community for sensitization programs? This hinders knowledge creation and transfer. Besides, it affects the willingness and interest of the community to implement and make use of the knowledge acquired during sanitation social marketing.

Limited participation of politicians in sanitation related activities: Much as the Local Government Act empowers them to participate and provide services to the communities including sanitation, some politicians do not incorporate sanitation in their agendas/manifestos. All they talk about is freedom of speech, freedom of association but rarely talk about sanitation.

Political interference (intervention): This has hindered enforcement of laws. During the interview session, it was found out that sometimes if one is going to enforce the law on ensuring that everyone should have a toilet and a decision is reached that everyone without a latrine should be imprisoned. This is sometimes interfered. The politician say the chairman intervenes saying that 'do not imprison them, those are my voters'. As such, for the sake of one's job, the law is not implemented.

Other ways to minimize capacity gaps can include; promotion of people- Usually, people keep in the same position for so long and this affects their motivation to serve and also provide opportunities for people to upgrade.

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