



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



Development of the National Water Resources Strategy Third Edition (NWRS-3)

Enabling Chapter: Building Capacity for Action

NWRS-3 CONSULTATION WORKSHOP

Day Month 2022

NWRS-3 CH15: Building Capacity for Action

The aim of this chapter is:

To ensure that sufficient capacity is created in the water and sanitation sector to implement and sustain the execution of water and sanitation policy and legislation, and give effect to the provisions of the proposed Water and Sanitation Act.

This chapter consists of the following 4 sections:

- Context and Current Challenges
- Guiding Principles
- Baseline and Status Quo
- Strategic Objectives and Strategic Actions for implementation (see next slides)

NWRS-3 CH15: Context & Current Challenges

The National Water Resource Strategy 3 (NWRS-3) acknowledges the fact that strategies to give effect to the provisions of the proposed Water and Sanitation Act will only be effective and successful if there are enough competent people available to implement them. It is imperative to ensure that sufficient capacity is created in the water and sanitation sector to implement and sustain the implementation of water and sanitation policy and legislation.

While skills and capacity are vital to the implementation of the NWRS-3, reforms within Government have placed the primary responsibility for the coordination and facilitation of education, training and skills development across various sectors in the Department of Higher Education, through the various Sector Education and Training Authorities (SETAs).

The Skill Development Act (Act No. 97 of 1998, as amended) conferred the primary legislative responsibilities of: facilitation of learning programme linked to occupations, disbursement of workplace training funds (mandatory and discretionary grants) and skills planning functions to SETAs. This arrangement has exposed the water sector to two SETAs namely the: Local Government Sector Education and Training Authority (LGSETA), which represent most of the Water Services Authorities (WSAs) and Energy and Water Sector Education and Training Authority (EWSETA). The challenges with this is that water and sanitation services are local government functions, which is LGSETA space and whilst EWSETA SSP is meant to represent the entire sector, including WSAs.

NWRS-3 CH15: Context & Current Challenges

For the water and sanitation sector, the Energy and Water Sector Education and Training Authority (EWSETA) is charged with the responsibility of coordinating and facilitating skills development and capacity building in accordance with the post school education and training landscape proposed by the National Skills Development Plan 2030, Human Resource Development Strategy (HRDS) II (2010-2030), New Growth Path, National Development Plan (NDP) 2030 and the National Skills Accord (NSA) between government, business and labour. Through Sector Skills Plans, the EWSETA and LGSETA focuses on:

- Determining skills development priorities after an analysis of the skills demand and trends, level of skills required and supply issues within the sector.
- Identifying a set of water and sanitation -sector-specific objectives and goals that will meet water and sanitation sector needs, economic or industrial sector growth strategies, and address scarce and critical skills in the sector.
- Identifying strategies, activities and resources to address sector skills development objectives and goals.
- Reporting on the implementation of the sector skills plan.

NWRS-3 CH15: Context & Current Challenges

The water and sanitation sector has a multiplicity of stakeholders and role players who represent various interests and mandates in relation to capacity building, training and skills development. Such stakeholders represent government, education and training institutions and agencies, water sector institutions, water users, support agencies and institutions as well as civil society organisations.

In playing the leadership role DWS will strive for robust partnerships of sector stakeholders, strong corporative governance from role-players and comprehensive coordination process in order to achieve the objectives of putting in place a well-coordinated, coherent capacity-building system within the water and sanitation sector.

It would be necessary, when the proposed Water and Sanitation Act is gazetted:

- For the DWS to develop the latest a Water Sector Competency Framework that lays out all the water and sanitation sector occupations (including their specialisation) and their skills requirements to deliver on the water and sanitation sector new consolidated mandate.
- For all water institutions to review all of their skills development plans based on the new consolidated updated mandates as defined in the proposed Act in order to determine the revised demand for skills and capacity.

NWRS-3 CH15: Guiding Principles

The water and sanitation sector's efforts in relation to capacity building and training for the implementation of the NWRS-3 are guided by the following principles:

- Water sector capacity building is located within the context of integrated water and sanitation resources and services (including sanitation) management, in line with the vision outlined in the White Paper for Post School Education and Training (WP-PSET)
- The skills and resources will be established and capable water institutions will also be developed, supported and retained.
- Skills and expertise within the sector will be optimized to create institutions that are capable of developing, attracting and retaining skilled people.
- There will be targeted programmes for professionalization of science and engineering occupations.
- Capacity will be developed to address all the institutional, individual and environmental elements of water resources and water and sanitation services functions (development, regulation, management, financing and service delivery) looking at entire water value chain.
- Resources will be directed to ensure that the capacity and efficiency of the state are improved in order to meet the challenges of growth and development, particularly within the local sphere of government.

NWRS-3 CH15: Baseline and Status Quo

Despite the reform structures, various strategic frameworks and some good progress made in respect of key skills and capacity building issues within the water and sanitation sector, challenges remain to be solved, such challenges will include:

- Lack of a coordinated mechanism for the planning, delivery and quality assurance of water-related capacity building, training and skills development programmes within the sector.
- Existence of multiple education, training and skills development providers within the sector (within formal education, post-school and the work place).
- Absence of sector skills intelligence hub.
- Lack of capacity to deliver qualifications that meet the needs of the water and sanitation sector among education and training institutions.
- There is a gap between higher education and training qualifications and related professional registration.
- There is inadequate human resource planning within the sector; for example, lack of succession planning, weak retention strategies and the inadequate induction of professional entrants.
- The level of water and sanitation literacy and awareness among members of the public is very low, resulting in inefficient water usage and wastage and unhealthy sanitation practices.
- Education, training and skills development are provided within a complex National Qualifications Framework and regulatory system and the practical articulations and access between the three sub-frameworks is lacking. Education, training and skills development within the sector is funded through a multiplicity of mechanisms, which result in overlaps or under-investment in critical areas.

NWRS-3 CH15: Baseline and Status Quo

- There is a shortage of specific critical skills within various institutions across the water value chain (engineering skills, artisans, socio-economic, environmental health, and management skills).
- Water and sanitation services institutions have cited various challenges, such as, that politics influences in the selection and appointment of individuals to positions, delays in attraction of skills and finding suitably qualified candidates, meeting Employment Equity (EE) targets, lack of support from management, disputes with the labour union, the approval process; and consultation processes for Section 57 posts make the process very lengthy.
- The primary reasons cited for difficulties in sourcing suitable technically qualified and/or skilled staff was as follows: remuneration, location, lack of experienced and skilled candidates.
- Other cited reasons were; working conditions, travelling distances, competing with counter offers from Water Services Authorities and the private sector, lack of career growth and competition with the private sector.

NWRS-3 CH15: Baseline and Status Quo

Notwithstanding the issues and challenges, the sector has made considerable progress towards addressing the skills and capacity gaps throughout the water value chain. A number of initiatives have been initiated and implemented by various stakeholders within the sector, including those listed below:

- On the basis of the outcomes of the impact assessment report of FET Water Programme Phases I and II, completed in 2010, recommendations were made to continue into Phase III of the Programme. In this regard, FET Water Phase III (2014 – 2019) currently focuses on six new thematic areas listed below, aligned to priority areas of NWRS II (2013): Water Infrastructure, Water Monitoring and Assessment, Water Planning and Implementation, Water Regulation Requirements, Water Use, Services and Sanitation and Institutional Management and Governance
- The DWS is continuing to implement national water literacy and public awareness programmes (the 2020 Vision Curriculum Support Programme as well as Baswa Le Metsee, Aqua Enduro and Public Speaking, DWS ECO School Programme and the South African Youth Water Prize Competition). The 2020 Vision for Water and Sanitation Education Programme in schools has reached over 20 000 learners and is one of the several competitions culminating in the National Awards.
- Through sector collaboration under the auspices of the Water and Sanitation Sector Leadership Group (WSSLG) Skills Task Team (STT), the sector has developed a Occupations Framework for much coherent and standardised planning, implementation and reporting of education, training and skills development within the sector through Workplace Skills Plan (WSP) and Annual Training Report (ATR) system,. The framework has informed a number of initiatives by various stakeholders within the sector, and serves as the basis for the approach employed within this chapter.

NWRS-3 CH15: Baseline and Status Quo

- The DWS Learning Academy continues to offer bursaries and to develop graduates (engineers, engineering technicians and technologists, scientists, surveyors, project managers, environmental officers and water economists) with the ultimate goal of registering them as professionals with relevant professional bodies.
- A number of water-sector stakeholders (for example, DCoG, EWSETA and WISA) have initiated programmes aimed at the professionalization of the various aspects of the water value chain. The EWSETA is currently re-designing their Water and Wastewater Process Controller training course in alignment with the Quality Council for Trades and Occupations (QCTO) sub-framework, the DCoG initiative focuses on local government in its entirety, and the WISA programme is aimed at the professionalization of process controllers, particularly focusing on:
 - Mapping career pathing for the entire suite of qualifications under FET Water to give them more integrity.
 - Developing occupationally-based awards for the entire suite of qualifications under FET Water III and registered by the National Qualifications Framework (NQF).
- The EWSETA has developed a Sector Skills Plan (2011 - 2016) in line with its new mandate and has commenced with the implementation of short to medium-term initiatives in partnership with various stakeholders within the sector. Such initiatives include supporting TVET colleges to access training materials from accredited training providers, the provision of bursaries for learners and engaging such agencies as the Municipal Infrastructure Support Agency (MISA), water boards and learning academies to open opportunities for workplace learning for students within TVET colleges.
- The EWSETA is conducting a baseline study to establish and understand the TVET College landscape (locational advantages, curricula, capacity and skills gaps, existing funding models, current qualifications, infrastructure and systems as well as demand and supply issues) through the University of Stellenbosch. This is envisaged to enhance the EWSETA's understanding of the TVET college environment and to inform the design of targeted institutional capacity building programmes in the future.

CH15 Strategic Objective 1:

To strengthen the strategic orientation and coordination capacity of the EWSETA and LGSETA to ensure a demand-driven skills planning mechanism that caters for short, medium and long-term sector needs.

In order to achieve the above strategic objective the following strategic actions must be undertaken:

- Develop the revised Water and Sanitation Sector Occupations Framework based on proposed consolidated Water and Sanitation Act.
- Ensure that planning for SETA skills development is based on primary resources such as an Organising Framework for Occupations that is reflective of the sector in order to ensure relevant and appropriate response.
- Ensure that the LGSETA Skills Sector Plans fully account for water and sanitation services sub-sector.

CH15 Strategic Objective 2:

To develop a responsive skills development funding mechanism to avoid funding duplications and overlaps.

In order to achieve the above strategic objective the following strategic actions must be undertaken:

- Partner with institutions to fund training of water sector practitioners in the curation, management and use of data as well as associated technologies.
- Facilitate aligned and collaborative skills and capacity development funding applications protocol that respond to sectoral priorities.
- Ensure water sector's list of priority occupations becomes part of LGSETA and EWSETA Skills Sector Plans.

CH15 Strategic Objective 3:

To facilitate quality assurance across all water sector occupational learning modes to ensure response and relevant skills.

In order to achieve the above strategic objective the following strategic actions must be undertaken:

- Establish regulations on required qualifications and experience for senior and technical positions in DWS, CMA/s, water boards and municipal services institutions.
- Ensure skills development requirements are standardised by the sector and implementation systems are quality assured for responsive and skilled water sector
- Ensure active constitution of community of expert practitioners (CEP) for all learning programmes within technical and vocational space in the water sector.

CH15 Strategic Objective 4:

To develop an inclusive strategy for the professionalization of water sector institutions and practitioners throughout the water value chain, including regulations, standards, professional registration and on-going development programmes such as mentoring, coaching, seminars and CPD based short courses against critical occupations.

In order to achieve the above strategic objective the following strategic actions must be undertaken:

- Develop and implement a programme for recruiting experienced technical and managerial staff, firstly, in South Africa and then internationally.
- Develop and implement a mandatory, modular hands-on qualification for municipal water managers (technical managers) to be run over 18 months and accredited by EWSETA to include aspects such as asset management, tariffs and revenue management, drought management, stakeholder engagement and customer relations.
- Develop and maintain skills and capacity for the sustainable development and management of groundwater resources at all management levels and with participation of all stakeholders as part of a long-term, ongoing process.
- Partner with sector stakeholders to offer structured workplace learning opportunities for candidates towards registration in a professional category by a statutory council.
- Develop a monitoring and evaluation system for sector capacity building and training.

CH15 Strategic Objective 5:

To strengthen partnerships for innovation between role players along the skills pipeline (schools, TVET colleges and HEIs), public and private providers, providers and workplaces, and between local and international providers (in areas where South Africa does not have the relevant expertise).

In order to achieve the above strategic objective the following strategic actions must be undertaken:

- Define (and reinstate in some cases) career paths with defined training and on the job experience to build a knowledgeable sector of professionals.
- Initiate a focused research capability initiative in water sector economics to address this existing skills gap.
- Identify new / future skills that are required in the water and sanitation sector such as skills related to the digitisation of the sector.
- Continue to develop high end skills (post graduate) to ensure future science, technology and innovation capability in South Africa.
- Continue to support programmes that enable development of critical skills and exposure to emerging innovations (e.g. 2020 Vision for Water and Sanitation Education).
- Support investment in knowledge production and innovation capacity within education and training institutions, science councils, state-owned enterprises and private sector organizations.

Discussion and Inputs

Chapters 15,