



CREATING A SHARED UNDERSTANDING OF SKILLS SHORTAGES, CHALLENGES & IMPLICATIONS – THE DWAF PERSPECTIVE

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SKILLS REQUIREMENTS FOR THE WATER SECTOR

Three overarching focus areas:

1. All skills and competencies required to ensure that DWA can fulfil its regulatory role efficiently and effectively
2. All skills and competencies required to ensure water and sanitation services delivery as well as the ongoing O & M required; and
3. All skills and competencies required to ensure integrated water resources management.



WATER SECTOR INSTITUTIONAL FOCUS

- Water Services Delivery – Institutions: water services authorities, water services providers, water services intermediaries and 2ndary services by water boards; and
- Water Resources Management – Institutions: CMAs and associated structures, WUAs, water boards (iro primary focus), etc.
- National & provincial government departments;
- NGOs/ CSOs/ communities



CAPACITY CHALLENGES - WATER SERVICES INSTITUTIONS (1)

- At least 800 to 1200 more civil engineers, technologists and technicians will be required in local government alone within the short to medium term
- The majority of the 3 000 to 5 000 operators working in about 1 500 to 2 000 water and waste water treatment plants must attain the necessary capacity to meet the requirements of the DWQ regulations.
- Delivery against the sanitation MDGs requirements alone, at least 1 167 artisans and 1 167 builder assistants (2 334 in total) will be required per day to ensure delivery of VIP structures alone



CAPACITY CHALLENGES - WATER SERVICES INSTITUTIONS (2)

- At least the equivalent number of artisans will be required to deliver the balance of 2 000 toilet structures, assumed to involve higher levels of technology. These numbers exclude the fact that this occupational category is estimated to be between 17% and 33% (which translates to approximately 750 additional artisans)
- Conservatively a cadre of 7 200 Health and Hygiene Promoters are required per day



CAPACITY CHALLENGES - WATER SERVICES INSTITUTIONS (3)

- There is a vast under-supply of reticulation plumbers, millwrights and mechanical/electrical maintenance crew.
- There is extremely limited knowledge of the specific requirements for O & M icro alternative sanitation systems and a massive deficit in skilled O & M personnel
- DRA facilitators will need to make 13 636 visits per day or close on 2 000 per hour within each seven hour day. This would, conservatively, translate to approximately 2 500 personnel members.



CAPACITY CHALLENGES - WATER SERVICES INSTITUTIONS (4)



- At least 2 000 supervisors across the different functional areas will be required to oversee the work of H&H promoters, DRA facilitators, artisans and artisan assistants.
- There are significant deficits in management capacity (based purely on existing numbers) within the water sector if international benchmarks are used. Using existing personnel levels as basis, at least 6 000 more management staff will be required.
- Asset Management has only recently been driven as a priority within water services institutions. Extremely limited knowledge, skill and capacity to ensure sustainable asset management practices exist.



CAPACITY CHALLENGES - WATER SERVICES INSTITUTIONS (5)

- There is a dearth of Operations and Maintenance capacity within municipalities. Routine maintenance is seldom planned or undertaken.
- Community capacity to ensure maintenance of water systems (including borehole systems) has deteriorated



STRATEGIC ELEMENTS REQUIRED

- Strengthen regulatory and support environment capacity and competence
- Optimise existing institutional capacity and competence
- Address barriers to learning
- Implement RPL systems and processes
- Provide enhanced & sustained funding
- Translate skills development & training into improved organisational performance/ service delivery



STRATEGIC ELEMENTS REQUIRED (2)

- Promote partnerships
- Ensure supporting institutions create an enabling environment for effective skills development and training
- Ensure effective skills development and training is rolled out rapidly



SECTOR INTERVENTION PRIORITIES

As per details provided on handouts:

- Operations and Maintenance
- Diagnostics
- Compliance
- Asset management
- Project management
- Learning visits



DWAF RESPONSE – THE 2025 VISION FOR HRD FOR THE WATER SECTOR

- Towards a 20 Year Human Resources Plan for Capacity Building in the Water Sector
- In pursuit of the 2025 Vision objectives, all available resources should be aligned to address the shortage of skills across the whole spectrum of education and training, now and for the future.



Thank you