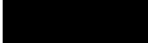




AFRICAN SANITATION ACADEMY: MARKET AND FEASIBILITY STUDY IN SOUTHERN AFRICA

The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development of the United States Government.

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FOREWORD

Despite a growing body of evidence of the economic, health, social, and political impacts of fecally contaminated environments, sanitation remains a neglected service in Africa. There is chronic under-investment in sanitation infrastructure and management, and a general lack of strategic approaches for addressing sanitation on an area-wide or larger scale; lack of prioritization of preventive health by Ministries of Health; and lack of political leadership to address the sanitary revolution that could improve the lives of approximately 644 million Africans lacking sanitation.¹

The United Nations (UN) designated a sanitation-specific global goal in Sustainable Development Goal (SDG) 6.2.² There is consensus among the sanitation expert community that achieving progress against these ambitious goals will require significantly more effective institutions and leadership.³ Leadership in the sub-sector is critical to overcome structural impediments (policy, legal, financial) and to make the significant and often difficult decisions needed to trigger the transformation of sanitation in Africa.

The USAID Water for Africa through Leadership and Institutional Support (WALIS) project⁴ studied the feasibility of a sanitation training center with an Africa continent focus commonly called the “African Sanitation Academy” (ASA).⁵ WALIS commissioned three regional ASA market assessment and feasibility studies in eastern, western, and southern Africa. Each study was meant to:

- Assess existing government frameworks and how local governments and sanitation providers are strengthening sanitation management and leadership.
- Analyze the demands of African utilities and governments for sanitation management.
- Identify what educational institutions are researching and/or teaching relevant to sanitation.
- Explore potential partnerships that should be developed and how they should be structured.
- Consider products appropriate to meet these demands.
- Examine what type of organizational framework would best suit ASA and how it should be financed, and the overall feasibility of the concept.

A feasibility report, summarizing the findings of individual regional studies was produced, addressing demand, products, costs, organizational partnerships, and financing. The findings of these studies will be used to seek financial and technical support from a range of prospective ASA investors and partners. This regional feasibility study focused on identifying and unpacking the target market, as well as current training and initiatives in Southern Africa. Its aim was to envisage an ASA and recommend models for its establishment based on the demand for and supply of relevant training in Southern Africa.

¹ World Health Organization (WHO)/United Nations International Children’s Emergency Fund (UNICEF). (2012).

² By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

³ For example, Gordon, B. (2016). *Lessons learnt from the MDG period in water and sanitation*.

⁴ WALIS aims to support national and regional institutions and their development partners to improve the capacity of African water sectors to implement policies, strategies, and plans that will deliver sustainable water, sanitation, and hygiene services consistent with the SDGs.

⁵ The term “academy” refers to an institution of higher learning, not in itself as extensive as a university, but one that draws together specialist expertise, gives its members the opportunity for in-depth learning, promotes analysis and the exchange of ideas, and encourages innovation. This distinguishes it from “training,” in which skills are improved according to established bodies of knowledge through courses or training modules.

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ABBREVIATIONS AND ACRONYMS

ACC	African Center for Cities
AIAS	<i>Administração de Infraestruturas de Água e Saneamento</i>
AMCOW	African Ministers' Council on Water
ASA	African Sanitation Academy
CFPAS	<i>Centro de Formação Público de Água e Saneamento</i> (Mozambique and Angola)
CLTS	community-led total sanitation
CPD	continuing professional development
CPUT	Cape Peninsula University of Technology
CRA	Water Regulatory Council
CSO	civil society organization
CWMMF	City Water Managers Forum
DBSA	Development Bank of Southern Africa
DNAAS	National Water and Sanitation Directorate (Mozambique)
DWS	Department of Water and Sanitation
ECSA	Engineering Council of South Africa
ESUDER	<i>Escola Superior de Desenvolvimento Rural in Vilanculos</i> (Mozambique)
EWSETA	Energy and Water Skills Education Training Authority
GSDPP	Graduate School of Development Policy and Practice (UCT)
IHE Delft	IHE Delft Institute for Water Education
IMESA	Institute of Municipal Engineering of Southern Africa
JMP	Joint Monitoring Programme
LGSETA	Local Government Skills Education Training Authority
M&E	monitoring and evaluation
MDG	Millennium Development Goal
MILE	Municipal Institute of Learning
MISA	Municipal Infrastructure Support Agency
MOAIWD	Ministry of Agriculture, Irrigation, and Water Development (Malawi)
MOOC	Massive Online Open Course
NGO	nongovernmental organization
NWSC	National Water and Sanitation Corporation (Uganda)
OD	open defecation

SAICE	South Africa Institute of Civil Engineering
SALGA	South African Local Government Association
SDG	Sustainable Development Goal
SETA	Skills Education Training Authority
SWA	Sanitation and Water for All
UCT	University of Cape Town (South Africa)
UEM	Eduardo Mondlane University
UKZN	University of KwaZulu-Natal (South Africa)
UN	United Nations
UNICEF	United Nations International Children’s Emergency Fund
UWC	University of the Western Cape (South Africa)
WALIS	Water for Africa through Leadership and Institutional Support
WASH	water, sanitation, and hygiene
WESNET	Water and Environmental Sanitation Network (Malawi)
WHO	World Health Organization
WISA	Water Institute of South Africa
Wits	University of Witwatersrand (Wits University, South Africa)
WRC	Water Research Commission
WSG	School of Governance (Wits University, South Africa)
WSP	Water and Sanitation Program
WSUP	Water and Sanitation for the Urban Poor

SUMMARY

This study is based on interviews with 66 key informants and officials from countries in Southern Africa, which together with limited desktop research, were conducted to gather and compile information and explore the possibilities for sanitation leadership training in the region. The Southern Africa study carefully considered the capacity building and leadership training needs of the urban sanitation sector (more than the rural sector).

Upon reviewing data from the Joint Monitoring Programme (JMP) and other sources, there is a need for sanitation leadership training to strengthen the delivery of sanitation in all Southern African countries. Yet, it is also important to structure the training to consider the important contextual differences. Therefore, recommendations include more than one approach to sanitation leadership training:

- Mozambique requires its own process (Angolan leaders could participate at a later stage if appropriate), not only because of its linguistic exceptionalism, but because it has relatively stable governance, rapid urbanization, and the need to strengthen a decentralized approach in regions outside Maputo.
- In terms of linguistic exceptionalism, Madagascar could be linked to Francophone countries.
- South Africa should be part of ASA training, both to benefit from the ASA and to contribute to it. There are a few approaches that could be used, which require their own process and which can be shared with other African countries either immediately or after they are more firmly established.
- Although rural sanitation is often less complex than urban sanitation, it poses an ongoing challenge to most Southern African countries, particularly for those moving up the sanitation ladder. Zambia could also provide a basis for leaders to share their rural challenges, such as Namibia, Botswana, and Malawi, perhaps through a form of knowledge sharing.

The target audience for training should be sanitation professionals and officials who are able to make or influence decisions relevant to sanitation. This group should be broad enough to take the growth of towns/cities into account, as well as ensuring that there are a few trained officials from each key organization. Who should take the training should be decided by the heads of utilities and agencies, in conjunction with those managing the training.

There should not be a question of whether politicians and a range of other key decision makers are included or not. They could be included in selected sessions (depending on the model). Creating and facilitating a space for politicians and officials to engage on issues of sanitation is important and could be initiated as part of the training (and hopefully maintained by them afterward).

In terms of incentives, informal ones were identified as most important to the target group of officials. These include the ability to do one's job better, an improved profile in the sector, recognition, and building one's network. Formal academic training is not a priority and is not a significant factor once officials are in senior positions. The difficulty of completing an academic degree while working is likely to be a negative experience for those embarking on it.

OTHER RECOMMENDATIONS

Creating a training approach that integrates ongoing mentorship alongside practical applications such as:

- Building a specific sanitation focus into communities of practice in Mozambique with Aquashare, a platform of professional operators in the water, sanitation, and hygiene (WASH) sector.
- Emulating the City Water Managers Forum (CWMF) through a City Sanitation Managers Forum in South Africa, linked to the South African Local Government Association (SALGA).
- Conducting training in Zambia, and drawing in professionals from other Southern African countries as appropriate to join the training.

In each county, officials being trained would identify priority areas for training that underscores leadership skills. For example, strategic thinking and planning in relation to fecal sludge management or revenue collection.

To support this training, it is recommended that ASA formulates and facilitates the adoption of continuing professional development (CPD) modules that meet sanitation leadership training needs. These materials would provide a basis for training described above and, over time, can be linked to professional associations and/or universities in Southern African countries.

BACKGROUND

INTRODUCTION

Clarity on institutional leadership in sanitation is especially lacking in fast-growing African cities where responsibility for sanitation is typically highly fragmented (sewerage, pit-latrines, pit emptying services, treatment, and sanitation in schools and health facilities are often managed by several different entities). The lead public sector figures lack the knowledge and experience on how to move from this fragmented patchwork of services to a comprehensive, viable, citywide approach.

The evidence seems to suggest that the few sanitation-related success stories in Africa have depended on exceptional leadership by sanitation leaders. Despite many different initiatives, which are beginning to address aspects of the neglect and poor performance of sanitation services in Africa, there is no initiative that focuses exclusively on nurturing leadership to trigger change in overall sanitation performance.

The vision of the ASA is the emergence of a strong and distinct leadership for sanitation among utilities and local governments in Africa; a leadership that can achieve sustainable and safely managed sanitation and sewerage services, which can contribute to Pan-African achievement of SDGs. Leadership would generate the resources, policy insights, management systems, and customer care capacity to improve services, placing them on a path to be continuously upgraded to meet local demand.

This report is a detailed feasibility study of how ASA could operate in Southern Africa.

STUDY METHODOLOGY

REGIONAL AND COUNTRY FOCUS

It was decided to ground this Southern African study in three countries, namely South Africa, Mozambique, and Zambia. The aim was to conduct a regional analysis, grounded in an in-depth study of these countries. It was anticipated that locating or beginning a sanitation initiative in two or three such countries might have more likelihood of succeeding than generalizing across a diverse region. This approach was selected in no way to exclude leaders from other Southern African countries.

SEMI-STRUCTURED INTERVIEWS

This report is based on 66 semi-structured interviews conducted in January and February 2017. The geographical breakdown of interviews is: Maputo (15), Lusaka (6), Cape Town (8), Durban (5), Johannesburg/Pretoria (27), Angola (1), Zimbabwe (1), Namibia (1), Botswana (1), and Malawi (1). While most of the interviews were conducted in Johannesburg/Pretoria, more than half of these interviewees were global or African experts in sanitation or headed national programs.

The team began with an extensive list of people to interview from a wide range of initiatives, organizations, and key informants, but references to additional key initiatives meant that there was a significant increase in the number of people to interview.

Country-specific methodological notes include:

- Interviews in Mozambique were conducted alongside a Portuguese-speaker from the University of Wageningen, who works in engineering and the WASH sector. He has lived and worked in Mozambique for four years. Half of the interviews were conducted over Skype and half were face-to-face. A field visit was made to view sanitation in some of Maputo's informal settlements.
- Interviews on Zambia, Angola, Botswana, Namibia, Malawi, and Zimbabwe were conducted telephonically.

Interviews were conducted in South Africa by a consultant/academic with a long history of research on eThekweni commitments for sanitation in particular, and work with sector leaders in a multi-stakeholder initiative. Approximately two-thirds of South African interviews were face-to-face and the others were telephonic.

DATA GATHERING

Internet searches were conducted to cover the range of universities with sanitation-related training, private training providers, and regional initiatives (see Annexes B and C for details). This provides an overview of how university courses tend to cover some technical aspects of sanitation and how private training providers have established themselves, although they are dependent on external funding and materials. These lists are not exhaustive, but provide an indication of what is available. Anything more directly relevant to the feasibility study is covered in the text of this report.

Interviewees often provided written materials with details on initiatives or background data. Many of these documents are included in the reference list. A few of these documents were noted for this

report only (SALGA), not to be copied or circulated, or are informal documents for internal planning use (these are not listed). A few interviewees provided information on training initiatives, but asked that it be used only to inform the study, and that details be treated confidentially.

AREAS OF EXPLORATION

Two inter-related sets of questions guided the semi-structured interviews:

- **The first set gathered information:** This focused on the context and institutional arrangements for sanitation nationally and in the city, leadership challenges around sanitation in the city, relevant training that currently exists for senior-level professionals, accreditation, and initiatives that are underway around sanitation.
- **The second set was exploratory in nature:** This focused on what initiatives in the past or present were most successful and why, what characteristics of training were desirable, various means of combing leaders from different countries and their perceived usefulness, who would benefit from training, and what initiatives and organizations would be best placed as a possible partner with which to develop synergies or locate training. Interviewees were also drawn from groups that had relevant and potentially applicable experience in the water sector, were developing leadership training around water, or focused on the development of cities.

Exact questions were tailored to the organizational location and background of the interviewee, what information had already been gathered, and the country context.

ADDRESSING STAKEHOLDER SENSITIVITIES AS AN ESSENTIAL FOUNDATION FOR ANY MODEL

In South Africa, a whole range of issues were discussed that would be essential for the positioning and ability of any initiative to succeed. The South African water and sanitation sector has a long history of attempts to engage with the issue of leadership. Unexpectedly, interviewees spoke of these failed attempts and it is thus included in the report as something from which to learn. Also in the South African context, there are conditions involved with accessing government funding for training.

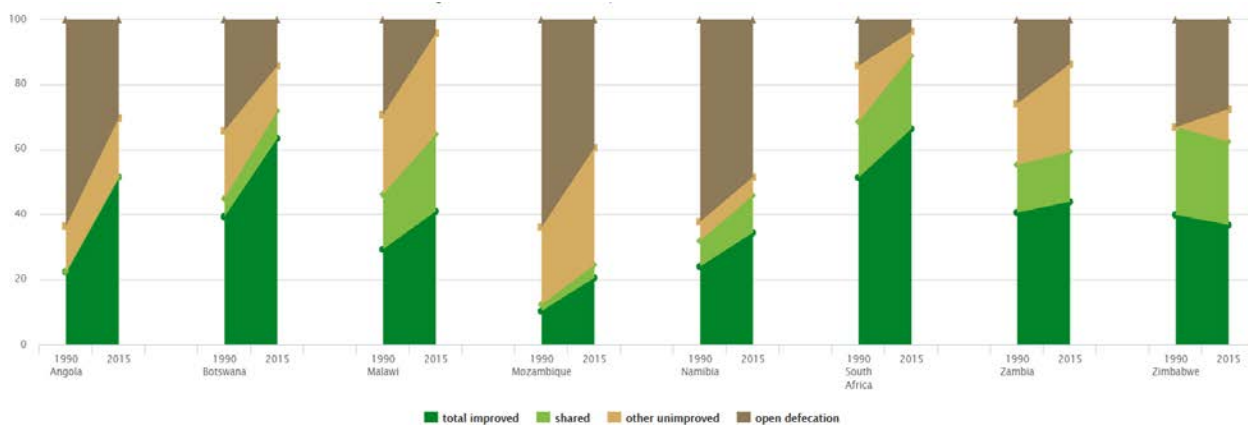
Finally, although not focused on sanitation leadership, there are many organizations and individuals with an interest in training, sanitation, and leadership. In South Africa, it is important to include local key actors—sector experts with influence and people in formal positions—to get their interest and buy-in to make any initiative feasible.

SIGNIFICANCE OF CONTEXTUAL DIFFERENCES IN SOUTHERN AFRICA

The following section first considers differences in sanitation coverage, institutions, challenges, and training among Southern African countries. Following a summary of this context, it then considers important non-sanitation specific contextual differences between countries. The aim is to situate the report and its approach.

Figure 1 shows that all countries apart from Zimbabwe have seen an increase in improved sanitation coverage, but there is still room for improvement; and most notably, Namibia, Zimbabwe, Mozambique, and Angola still have unacceptably high percentages of people who defecate in the open.

FIGURE 1: TRENDS IN SANITATION COVERAGE IN SELECTED COUNTRIES IN SOUTHERN AFRICA 1990–2015



SOURCE: JMP DATA, 2015.

SANITATION CONTEXT

This section reviews the sanitation context in each Southern African country as a basis to understand similar and differing leadership needs in the region. It is informed by existing progress data on both sanitation coverage, i.e., progress on meeting the Millennium Development Goals (MDGs), as well as by the enabling environment for leadership, i.e., progress on meeting the eThekweni and related commitments. The eThekweni commitments, and the N’gor commitments that superseded them in the SDG era, reflect core components of sanitation leadership and governance. These include planning, regulation, policy development, finance, institutional leadership, monitoring, inter-sectoral coordination, and ensuring that ongoing provision arrangements are in place.

The review below confirms that the need to strengthen public sanitation leadership is a key underlying constraint, and also indicates specific challenges and ASA foci in the sub-region.

OVERVIEW OF SANITATION CHALLENGES IN SOUTHERN AFRICA

In Southern Africa, more than one-third of people in urban areas and two-thirds in rural areas currently lack improved sanitation. As in most of Africa, progress has been slow. No Southern African countries reported meeting MDG 7 to halve the proportion of the population without basic sanitation (Angola and Botswana did report making some progress).⁶

These problems are becoming more acute with rapid urbanization resulting in urban systems that are stressed; small towns are quickly changing and informal settlements are burgeoning. Leaders are pressured to respond to areas lacking sanitation and systems unable to cope. Except for Malawi, all Southern African countries have more than one-third of the population in urban areas already, and their

⁶ Country comparisons can be run on WASH Watch: <https://www.washwatch.org/en/countries/compare>.

urban population growth rates are high (more than 3 percent). Zambia and Madagascar stand out as countries facing particularly rapid urbanization, with an already large urban population.⁷

There are also more promising signs. In terms of the 13 eThekweni commitments made by Southern African countries between 2013 and 2015, Madagascar, Malawi, South Africa, and Zimbabwe had made good progress. Some progress was made by Angola, Mozambique, Namibia, and Zambia.

The AfricaSan4 report highlighted that sector policies and plans are in place in most Southern African countries. However, more needs to be done to ensure that these are implemented, and that there are monitoring and evaluation (M&E) systems to measure whether they are meeting the specified goals. To do so requires finance, which is a particular challenge in sanitation.

To make sure that policies and plans are implemented also requires institutions with capacity. Examining the progress on eThekweni commitments,⁸ leadership, institutions, and capacity are one grouping of commitments in which there has been progress, but support is clearly needed.

In terms of institutions and coordination (eThekweni commitments 5a and 5b), almost all Southern African countries made some progress on ensuring that there is one, accountable institution that takes leadership for the sanitation portfolio and establishing one coordinating body for sanitation, including all stakeholders. Exceptions include Zambia, which made some progress in both areas, and Mozambique (some progress on 5a) and Namibia (some progress on 5b).⁹

Qualitatively, the factor that emerges is that almost all Southern African countries have institutions responsible for sanitation that are newly formed or newly responsible—and that these institutions require capacity building. This finding is supported by AfricaSan4, which reported limited progress in “building capacity for sanitation and hygiene implementation, and that this is a critical bottleneck to progress.” This is the area that key informants emphasized. While there may be national capacity building plans, steps to implement these plans have been proceeding exceedingly slowly. It is important to focus leadership training on officials from these institutions, since institutional change is recognized as an important window to introducing deeper change in terms of a new paradigm or a fresh approach. Of course, it is also important to include other interested officials who might benefit.

In terms of capacity, South Africa, Zambia, and Zimbabwe made good progress in meeting eThekweni commitment 10, “To build and strengthen capacity for sanitation and hygiene implementation, including research and development, and support knowledge exchange and partnership development.” Madagascar, Malawi, and Mozambique made some progress, while Angola, Botswana, Lesotho, Namibia, and Swaziland made no progress or data was not available.

Approaches to sanitation typically differ according to their rural or urban location. Although the backlog in rural areas is larger, households in most Southern African countries take responsibility for their own sanitation, which typically means an unimproved pit latrine. Governments could offer support and

⁷ UN. (2017). *Data*.

⁸ AMCOW. (2015). *AfricaSan4: Monitoring the eThekweni commitments on sanitation*.

⁹ WHO. (2017). *Special report for Africa*.

training through various ministries or local authorities, so that households sustain progress and to encourage them to move up the sanitation ladder.

In contrast, the challenge of ensuring some form of sanitation in growing towns and informal settlements is more complex. It entails planning at a large scale; ensuring sanitation infrastructure is built by creating feasible financial models with support from different stakeholders, and buy-in and contributions of users, possible extension of sewers, and operation and maintenance of waste water treatment plants, as well as fecal sludge management. Because of the complexity of the urban landscape relative to the rural landscape, leadership is more “difficult,” and the lack of it has consequences that impact a larger number of growing populations.

The above summary explains why this report (although it includes both rural and urban areas and all of the Southern African countries) has focused more on urban sanitation and on countries that have important openings for change and can serve as a basis for reaching other countries in the region. This is what the study focused on, but it does not determine or limit who can benefit from an ASA.

BOTSWANA

In Botswana, there was no clear institution responsible for sanitation and no lead ministry until October 2016, when the new Ministry of Land Management, Water Supply, and Sanitation Services was formed. However, it does not have capacity for sanitation, and there is no official development assistance in Botswana to support capacity building.

Fifty-seven percent of the population lives in the few urban areas, and 78.5 percent of the urban population has improved sanitation. While urban sanitation is well supplied with infrastructure, the situation in rural areas is dire, with 43 percent of the rural population with improved sanitation; 14.3 percent of the population in Botswana still defecates in the open.¹⁰

In terms of training, there is a well-capacitated local consultancy doing community-led total sanitation (CLTS) training and water governance training at the local level (which could be expanded to sanitation), but otherwise training capacity is extremely low with only one WASH trainer registered in Botswana. In short, there is a need for high-level sanitation courses to capacitate the new ministry, particularly with strategic capacity; M&E systems; and, according to one key informant, “new approaches to governance challenges.” In addition, it would be useful to learn from Namibia, which has similar conditions and a good rural model.

MADAGASCAR

Madagascar has the highest growth rate of the urban population (4.7 percent) in the region (UN Data). Only 18 percent of the urban population has improved sanitation, and 8.7 percent of the rural population. Open defecation (OD) is practiced by 39.8 percent of population.¹¹

In addition to policy adopted in 1997, according to “Getting Africa on Track,” a key document is the National Program for Safe Water Supply and Sanitation (PNAEPA), which includes the objectives to be

¹⁰ UN. (2017). *Data*.

¹¹ WHO/UNICEF. (2015).

reached; anticipated results; actions to be undertaken; resources to be mobilized, especially human and financial resources; and M&E system. The M&E frameworks need to be strengthened. To implement policy and legal frameworks, a clear sector leader is still needed, particularly in urban areas.¹²

In terms of finance, there is a strong history of household contributions, but projected estimates for sanitation call for \$59 million allocated to rural and \$6 million to urban areas. To help finance the sanitation sector, the government is taking steps to integrate the private sector and nongovernmental organizations (NGOs) such as CARE and Water and Sanitation for the Urban Poor (WSUP), which have been working with municipalities in setting up sustainable sanitation blocks in Antananarivo. Reports emphasize that there is a need for capacity building of all sector actors in all areas to support the changing and often transitory environment.”¹³

MALAWI

In Malawi, the National Sanitation Policy of 2008 lays out the responsibilities for sanitation, which falls under the Ministry of Agriculture, Irrigation, and Water Development (MOAIWD), but some responsibilities fall to the Ministry of Health. In a country with largely rural residents (16.3 percent of the population live in urban areas), sanitation in rural areas is the responsibility of communities themselves, with support from government for schools and other public institutions. District authorities and NGOs train rural communities. According to the JMP (2015), there is only 4.3 percent OD in Malawi. The main sanitation challenge is to ensure that people move past basic sanitation to improved systems, but key informants report that sanitation marketing has made little difference. Almost all existing government investment is directed to water.¹⁴

The Ministry of Local Government is responsible for decentralization and local government reform, under which District Assemblies are nominally responsible for implementing water and sanitation programs. It is estimated that there are several hundred local, small civil society organizations (CSOs) working in the WASH sector where an estimated 80 percent of the sector’s resources are derived. In 2011, the Water and Environmental Sanitation Network (WESNET) was created to build better links between these CSOs and government. WESNET is an active participant in both the WASH Sector Working Group and the WASH Cluster, which was set up by the Ministry of Health.

Responsibility for urban sanitation (including waste water treatment) in two cities and five towns was supposed to be passed to five cities and three regional water boards (parastatals), but this has not yet occurred fully. According to key informants, the water boards are composed almost entirely of engineers who, to date, have only been responsible for water provision. Taking on this new role, they require specialized training on sanitation. Professional training on sanitation and hygiene is available from two institutions of higher training, the University of Malawi, Polytechnic and Mzuzu University. However, key informants explain that this covers only basic issues in sanitation and there is a “long way to go” with more advanced training for leadership.

¹² African Ministers’ Council on Water (AMCOW). (2013). *Reviewing sanitation action plans and eThekweni monitoring meeting report*.

¹³ AMCOW. (2006). *Getting Africa on track to meet the MDGs on water and sanitation: A status overview of 16 African countries*.

¹⁴ Ibid.

MOZAMBIQUE

In Mozambique, 32.2 percent of the population resides in urban areas, which are rapidly growing with a 3.3 percent urban annual growth rate; 42.4 percent of urban dwellers, and only 10.1 percent of rural dwellers have improved sanitation; 39.5 percent of the population still practices OD.¹⁵

The main challenges with regard to improved sanitation in Mozambique include: 1) a lack of finance to provide for sustainable operations and maintenance of existing facilities and to fund new coverage; 2) institutional overlap and lack of clarity over mandates, and lack of ring-fencing of sanitation funding at the municipal level; and 3) lack of capacity and leadership.

Policy making resides with the Ministry of Public Works and Housing, National Water and Sanitation Directorate (DNAAS), sub-directorate on sanitation. However, responsibilities for urban sanitation are divided over many different institutions at various levels of government. AIAS (*Administração de Infraestruturas de Água e Saneamento*) is the national asset holder for sanitation assets, operating at national, provincial, and municipal levels, but municipalities can also be asset holders.

There is clearly a difference between the formal role of municipalities and what they are able to do in practice. At the sub-national level for each province, a Provincial Directorate of Public Works, Housing and Water Resources—DPOPHRH (*Direcção Provincial de Obras Públicas, Habitação e Recursos Hídricos*)—has the responsibility for coordination of water supply and sanitation, through the Department of Water and Sanitation (DWS).

At the district level, water supply and sanitation activities fall under the District Planning and Infrastructure Service—SDPI (*Serviço Distrital de Planeamento e Infra-estruturas*). Municipalities are autonomous entities of local government and are responsible for ensuring water supply and sanitation in their respective area of jurisdiction. While it is recognized that local governments play an essential role in planning, management, monitoring, and supervision of water and sanitation services, many do not have sufficient capacity to do so.

In general, the tendency has been to leave the responsibility for the provision of sanitary facilities to individual households, with the exception of middle-class citizens residing in the so-called *cidade de cimento* (cemented city). Many municipalities do not ring-fence funds and responsibilities for the sanitation sector, lacking the human resources to do so.

Funding for sanitation is a major challenge—most of the AIAS budget comes through budget allocations made by the Ministry of Finance via the Ministry of Public Works. Some municipalities have instituted sanitation fees on water users,¹⁶ which then cross-subsidize improved sanitation services (fecal sludge collection and treatment plants) for the few urban dwellers having access to those services. Most new funding initiatives for improved sanitation facilities originated from donor agencies, particularly World Bank's Water and Sanitation Program (WSP)¹⁷ and WSUP.

¹⁵ UN. (2017). *Data*.

¹⁶ WSUP. (2016). *Increasing municipal finance for sanitation: Towards a sanitation tariff in Maputo*; and Edwards, B., Nagpal, T., Rose, R., Mohammed, A. N., Uandela, A., Wolfsbauer, M., & Norman, G. (2015). *Municipal finance for sanitation in three African cities*.

¹⁷ AMCOW. (2011c). *Country status overviews—Water supply and sanitation in Mozambique: Turning finance into services for 2015 and beyond*.

There is an enormous lack of formal training possibilities as is reflected in the hiring of new sanitation experts at the municipal level without any formal qualifications or previous experience in the sector. The formal training center for water and sanitation—CFPAS (*Centro de Formação Público de Água e Saneamento*) offers a three-month technical course and a year-long professional diploma in water and sanitation (an institution by the same name has been started in Angola with support of the United Nations International Children’s Emergency Fund [UNICEF], the European Union, and the World Bank). The existing bachelor’s and licenciatura program on water and sanitary engineering at ESUDER (*Escola Superior de Desenvolvimento Rural in Vilanculos*) is attracting more and more students, but has not yet made a dent into the scarcity of suitably qualified staff at the municipal level. The licenciatura and master’s program on hydraulic engineering and water resources offered at the Faculty of Engineering at the Eduardo Mondlane University (UEM) in Maputo pays only scant attention to sanitation, displaying a strong bias on hydrology and water resources engineering.

Two platforms are operational and addressing both professionals and key decision makers in the Water and Sanitation sector: 1) Group on Water and Sanitation (*Grupo de Água e Saneamento*)—the different (funding) organizations that play a role in the water and sanitation sector have united themselves in the multilevel informal advisory group called Group on Water and Sanitation that meets once a month to coordinate efforts undertaken in the WASH sector; 2) Aquashare, a platform of professionals operating in the WASH sector, established by Manuel Alvarinho, head of the Water Regulatory Council (CRA), the regulating agency for the sector. Aquashare is a voluntary platform that has not been constitutionally conceived or registered. It organizes an annual conference for professionals operating in the sector. It has an industry chapter fostering links with the main stakeholders. It also has a Young Professionals chapter that organizes symposia for those wanting to find a place in the sector.

Putting an M&E system in place is one of the challenges. DNAAS tries to coordinate the collection of data jointly with AIAS, but there is no streamlined mechanism or shared database yet.

Since 2011, the sanitation sector has received more attention, as reflected in the adoption of a National Strategy to Provide Water and Sanitation (in 2011); and a widely attended conference for the sanitation sector held in Maputo in 2014, trying to sort out the overlap and divided nature of different state agencies that play a role in sanitation (unfortunately, most new alignments were not implemented). A new World Bank program (likely to start in 2018) will test new approaches toward fecal sludge management and waste water management in six medium to large cities.

NAMIBIA

In urban areas of Namibia, the Ministry of Urban and Rural Development does sanitation facilitation. However, local authorities, through public utilities, are responsible for providing sanitation; 54.5 percent of the urban population has improved sanitation, and only 16.8 percent of the rural population has improved sanitation.¹⁸ Four ministries are involved in rural sanitation. Responsibility for rural sanitation falls under the Ministry of Agriculture, Water, and Forestry, which coordinates water and sanitation and constructs systems in rural areas. The Ministry of Urban and Rural Development also supplies

¹⁸ UN. (2017). *Data*.

infrastructure and receives budget support for this. The Ministry of Education and Health is also involved in providing health and hygiene training in rural areas.

The main challenges are that in rural areas there is no demand for sanitation, there are few toilets, and most of the population practices OD with poor hygiene. The migration from rural to urban areas means that there are large, informal settlements that are not connected to sewers and most towns are not “keeping up” with this growth. There are also “villages” that are not yet towns.

While 48.5 percent of the population still defecates in the open, key informants expressed concern that future donor finance for the sector is uncertain. European Union support for the water and sanitation sector, which covers most water infrastructure and some sanitation and technical support, ends in 2017.

While there is academic training for other competencies, sanitation is a new focus area and has been identified in the National Sanitation Strategy as requiring capacity training. GIZ has supported the Namibia Training Authority to develop curriculum for training on sanitation, but this has been in progress for three years and, even when it is completed, is not expected to be immediately available given that there is no host institution in place to deliver the curriculum.

SOUTH AFRICA

Sanitation in South Africa is discussed elsewhere, but the key points are that there is a DWS, with a sanitation policy being re-drafted, but the responsibility for sanitation lies with the municipalities. Government is expected to deliver sanitation to urban and rural populations, because the right to sanitation has been recognized.

Large South African cities like Johannesburg and Pretoria or “Metros” have sanitation systems inherited from the apartheid regime, and they attract the most trained people, have a revenue base, and are able to experiment with new technologies. Yet, there has been an explosion of informal settlements outside urban areas that have generally been ignored. There are also numerous small towns with few, if any, trained professionals. As a result, 69.6 percent of the urban population have improved sanitation. While there have been numerous programs to eliminate the “bucket system,” little progress has been made. Protests around sanitation have become increasingly common.

Government provision of ventilated improved pit latrines (VIPs) over the past decades mean that 60.5 percent of rural dwellers have improved sanitation. Due to expectations of government delivery, CLTS has not made inroads into the country, and OD is nearly eliminated.

ZAMBIA

Zambia is a rapidly urbanizing country, with 40.9 percent of the population living in urban areas and an annual growth rate of the urban population of 4.3 percent. Only 55.6 percent of urban dwellers have access to improved sanitation, and 35.7 percent of rural dwellers have this access, with UNICEF leading on CLTS.¹⁹

¹⁹ UN. (2017). *Data*.

Institutions are in flux with a new national department and utilities being made responsible for on-site sanitation. Responsibility for sanitation has recently moved from the Department of Local Government to a new DWS, but the transfer has not yet fully taken place. Key informants noted the need for a clarification of roles and responsibilities at national, district, and community levels.

While local authorities nominally manage urban sanitation, commercial water utilities are responsible for budgets and provision. They require capacity building to address their new responsibility for sanitation, as detailed later in this report. An M&E system is being developed and strengthened.²⁰

Although there is a specific public sector budget line of sanitation, reports note that there is a need for both government and donors to allocate more resources.^{21 22} There is a concern about utilities neglecting on-site sanitation needed in poor urban areas due to a lack of a sustainable financial model. Moreover, fund disbursement to the district level needs to be strengthened and streamlined through budget mechanisms.

ZIMBABWE

In Zimbabwe, 49.3 percent of urban dwellers and 30.8 percent of rural dwellers have improved sanitation, and 27.6 percent of the population practices OD.²³

In terms of institutions, rural areas have both district and provincial water and sanitation committees, with a range of departments involved. Most members of the District Council, who are responsible for sanitation, serve on these committees. In terms of urban sanitation, where 32 percent of the population resides,²⁴ each town is responsible for its own sanitation infrastructure.

Nationally, there is a Water Coordination and Information Forum that receives monthly reports and an Urban Water and Sanitation Committee chaired by the Ministry of Local Government. One of the most effective structures is the National Action Committee, which is composed of the permanent secretaries of relevant Ministries (Water, Environment and Land, Rural Development, Local Government, and Health). Its secretariat, the National Coordinating Unit, was described by one key informant as “what works in terms of making things happen.”

The main challenges to sanitation include:

- History of provision in which people were given a toilet.
- Problem to agree on standards; no pit latrines or ecosan facilities are legal in terms of urban bylaws and residents are fearful of the consequences of breaking the law.
- Towns are expanding, but services are not provided and there is no connection to sewers.

²⁰ AMCOW. (2006). *Getting Africa on track to meet the MDGs on water and sanitation: A status overview of 16 African countries.*

²¹ AMCOW. (2013). *Reviewing sanitation action plans and eThekweni monitoring meeting report.*

²² AMCOW. (2006). *Getting Africa on track to meet the MDGs on water and sanitation: A status overview of 16 African countries.*

²³ UN. (2017). *Data.*

²⁴ Ibid.

- There is widespread resistance to CLTS since the quality is not good enough. “CLTS was pursued, but ‘it doesn’t work in Zimbabwe’.”
- A lack of finance.

According to UNICEF, “The current water and sanitation situation in Zimbabwe is the result of the lack of investment in these sectors during and after the economic crisis of the last decade. Other factors relate to its enabling environment. Legislation and policies on WASH exist, but are not fully implemented. There is also a lack of M&E systems, which has an impact on the overall quality of water and sanitation and on the formulation of adequate strategies and data collection nationwide.”

In terms of training, people are generally highly trained. According to key informants, training is not necessarily the issue. There is an Institute of Water and Sanitation Development (linked to the University of Zimbabwe), which provides technical training at the town level and all local authorities are trained. There are some existing communities of practice.

FOCAL POINTS FOR TRAINING

While it is conceptually straightforward to treat Southern Africa as a region, there are key contextual differences that necessitate attention. These provide a basis to consider more nuanced, appropriate models for leadership training that combine training sessions in different ways and stage their development.

In each country, there is demand on the part of senior leaders in decision-making positions around sanitation for some form of training to strengthen their ability to address these challenges. Existing training is extremely limited, and training that meets this target is typically non-existent in Southern African countries. The details of the demand and supply are presented in the following sections.

Given existing resources, a key question is the focus of training. This section highlights key contextual differences between countries that show it makes more sense to locate training in certain countries than others—although the recommendations that conclude the report certainly do not suggest excluding any countries. Instead, they are tailored around what “will work” in terms of country contexts and institutions.

This section is a basis for considering various ways to group or “tier” Southern African countries so that training applicability is not lost in a generic “one-size-fits-all” training. Financial constraints will certainly mean that Pan-African approaches will also be necessary. Thematic differences in context are briefly described below:

LEADERSHIP VACUUMS: ZIMBABWE AND ANGOLA

In countries where sharp economic downturns have occurred, like Zimbabwe and Angola, capacity gaps in the WASH sector have widened due to falling investment associated with the widening ripples of successive political crises.²⁵ The lack of investment has impacted the enabling environment and, in turn,

²⁵ AMCOW. (2011d). *Country status overviews—Water supply and sanitation in Zimbabwe: Turning finance into services for 2015 and beyond*; and AMCOW. (2011b). *Country status overviews—Water supply and sanitation in Angola: Turning finance into services for 2015 and beyond*.

impacted the sanitation sector. It is clear that this situation could change within the next decade, so it is important to consider having leaders and professionals from these countries participate in leadership and technical training in some way.

Zimbabwe continues to have strong leadership in the sector, with a National Coordinating Committee, and is supported by World Bank and other donors for both urban and rural sanitation. Although investment has declined, Zimbabwe still outperforms many other countries in the region (in terms of N'gor commitments on leadership). Moreover, as one key informant argued, it is not training that is an issue, but governance issues such as the illegality of pit latrines or any form of sanitation that is not “full flush.” This highlights the fact that governance issues are preventing leadership from being as effective as it otherwise could be.

In Angola, when the oil price crashed, donor budgets were cut. As a result, leaders cut water and sanitation budgets dramatically. That said, some progress has been made regarding master planning, the design of sewerage systems in Luanda and Angola’s provincial capitals, as well as training for professionals in the Angolan WASH sector (CFPAS).²⁶ Subsidies are provided to all the large sewerage systems, but if those same benefits provide comparable staff capacity building it is not well known, with the exception of CFPAS. The possibility of such leaders participating in training in Portuguese can be pursued in conjunction with Mozambique.

INSTITUTIONAL FLUX: ZAMBIA AND MALAWI

While Zambia does not fit into the above categories, its situation of institutional flux presents a challenge and an opportunity for sanitation leadership training. Its Water Act established commercialized utilities and made them responsible for water-borne sanitation; however, interviewees estimate sanitation needs at 80 percent of Lusaka’s population. The revenue of the utilities does not cover on-site sanitation needs. Most recently, the competency for sanitation was affected by the shift of responsibilities from the Ministry of Local Government and Housing, which has developed an overall capacity building plan, to a new Ministry of Water Development, Sanitation, and Environmental Protection.²⁷ There are several unresolved (and unarticulated) issues relating to responsibility and authority for sanitation.

Over the last few years, there have been significant changes in Malawi’s WASH sector institutions. After the 2014 general election, ministerial restructuring led to creation of the MOAIWD and away from a ministry that was only concerned with irrigation and water development. This change, along with leadership changes and alignment of responsibilities between the MOAIWD and the Ministry of Health, has created some confusion in a sector that has been known for inclusive partnerships and openness. The result of this has been less resources going toward the WASH sector, given the dominance of agriculture in Malawi and the fact that the new ministry’s largest portfolio is the country’s agriculture sector.

At the local level, institutional flux between providers of sanitation also exists as the responsibility for sanitation services shifts between water boards and city councils. The Water Works Act of 1995

²⁶ UNICEF. (2017). National Vocational Training Center for Water and Sanitation (CFPAS) in Angola.

²⁷ *Times of Zambia*. (2016).

empowers water boards to provide sanitation services and charge for them alongside water bills. However, the Local Government Act of 1998 has recently been ruled to prevail against the Water Works Act, meaning the authority to provide these services still remains with the city councils rather than the boards. That said, MOAIWD, World Bank, and other partners support the shift of sanitation services to the water boards, therefore general agreement points to this eventual shift, but in the absence of stronger government leadership to push for the legislative changes needed, the confusion between service providers remains and has resulted in the decline of functional sanitation systems throughout Malawi’s urban areas.

PREDOMINANTLY RURAL FOCUS: NAMIBIA, LESOTHO, SWAZILAND, MOZAMBIQUE, AND MALAWI

The sanitation focus in many Southern African countries with smaller, more dispersed populations is naturally on rural sanitation. Sanitation tends to focus on elements such as strengthening small-scale providers. Namibia, Lesotho, Swaziland, Mozambique, and Malawi are not rapidly urbanizing; therefore the challenges are primarily rural ones.

Because of the complexity of the urban landscape relative to the rural landscape, leadership is more “difficult” and the lack of it has consequences on rapidly growing populations. The growing number of people needing sanitation and the often high rate of urbanization means that there are considerable challenges—both from a leadership perspective and an institutional perspective when providing adequate sanitation. However, this in no way precludes training professionals from these countries that are not rapidly urbanizing. It would be ideal to connect them with training networks. This could occur through knowledge exchange (visits to other comparable Southern African cities to learn from them), joining a training conducted in another country, or in distance learning.

LINGUISTIC EXCEPTIONALISM: MOZAMBIQUE, ANGOLA, AND MADAGASCAR

At least half of the Mozambican interviews were conducted in Portuguese, because interviewees were not able/did feel comfortable to conduct them in English. Because these were largely Maputo-based, senior officials and the academy would need to widen its focus to other cities. The necessity to conduct training in Portuguese is clear. This linguistic exceptionalism also applies to Angola.

While the focus was on the two Lusophone countries, which are sizeable, the Francophone context of Madagascar is also linguistically exceptional. Materials and training available in the other Francophone countries of West Africa could be adopted for Madagascar.

ROLE OF DONORS AND NGOS

In Madagascar, Malawi, Zambia, and Zimbabwe the sanitation sectors—urban and rural—are largely driven by private providers and donors, and few government resources are allocated to sanitation.²⁸ This is also true in other countries, perhaps to a lesser extent. Donors and NGOs are generally keen to support leadership training and may wish to link officials with training opportunities.

²⁸ AMCOW. (2011a). *Country status overviews—regional synthesis report—Pathways to progress: Transitioning to country-led service delivery pathways to meet Africa’s water supply and sanitation targets.*

SOUTH AFRICAN EXCEPTIONALISM

In the field of development studies and politics, the idea that South Africa is “exceptional” to the rest of Sub-Saharan Africa has been seriously challenged. While this has been the subject of entire books, perhaps the most relevant differences and similarities are outlined below. They show that many South African sanitation leaders need training, but that there are also examples to learn from the country and a possible funding source that could present opportunities for the rest of the region. This issue is discussed at length here, because inclusion of South Africa in the ASA is a key issue to be resolved.

FAILURE TO IMPLEMENT POLICIES AND LEGISLATION AND TO PRIORITIZE SANITATION, AS ELSEWHERE ON THE CONTINENT

South Africa is an upper middle-income country with significant autonomy from donors. However, there are other medium-income countries on the continent, and it is clearly an assumption that adequate funding in any of these countries is directed to sanitation rather than other services. Yet, there is no doubt that the sanitation sector in South Africa receives more overall funding than other countries. One interviewee argues that South Africa is exceptional because there is funding for household infrastructure:

“This is a fundamental difference in terms of being able to “call the shots.” This distinctiveness shapes what we can do and equip agents to do, can change levers for actions, and can control the pace of improvements. If municipalities have money, they can get people to talk to them. Therefore, the target and tasks differ according to local context, for example, if there is funding for household sanitation you can focus further down the chain and develop strategies for tackling that.”

Funds alone do not deliver sanitation. As the South African sanitation indicators show, it is not meeting sanitation targets.

WORLD’S MOST UNEQUAL COUNTRY

South Africa is the most unequal country in the world.²⁹ There are top systems and there are dire ones, side by side. There are world-class Metros and informal settlements, and small-town areas that are comparable to their counterparts elsewhere on the continent. This explains why Metros or national leaders can be arrogant about South Africa’s sanitation status, but it also explains why some leaders are keen to learn from other African countries.

²⁹ World Bank. (2017). *World development indicators: Distribution of income or consumption*.

DECENTRALIZATION AND THE RIGHT TO SANITATION

Finally, South Africa’s approach to sanitation—a right to be provided by municipalities—differs. This may be an area where exchange between South Africa and other countries in the region on the continent may be mutually beneficial, particularly since it is a focus of the N’gor commitments.

The approach to sanitation in policy and legislation differs. It differs most significantly in the area of decentralized sanitation provision and the constitutional right to sanitation provision. Government and citizen expectations are for government delivery. This poses two opportunities for engagement with other countries. First, other countries in the region may be considering how to deliver on many of their newly established “rights to sanitation.” Seeing how this has developed in South Africa may be useful. Second, a few South African interviewees stated that the challenge is to problematize the South African model with government as the exclusive conduit for sanitation. South Africa thinks it has all the answers, but there is a need for honest engagement through which South Africa could learn. One interviewee stated the point clearly, “Can’t South African officials learn from people who are making a system work with few resources?”

While South Africa can be argued to be exceptional, closer scrutiny shows that the country shares many of the same challenges as other countries in the region. Interviewees were clear that there is a demand for sanitation leadership training.

GOOD MATCHES: SOMETHING TO GIVE AND SOMETHING TO SHARE

Interviewees indicated that “good matches” would be essential for knowledge exchange. Some indicated that they could offer their skills to other African countries and others were clear that they would benefit from learning from one another. The difference in approach was largely based on the location of the interviewee, whether a well-resourced Metro or a struggling small town or rural municipality.

In addition, perhaps due to its isolation under apartheid and its resource base, some South African officials tend to consider South African experience as much more advanced than the rest of Africa, and that being at the forefront its learning will eventually emanate to the rest of Southern Africa.

“Focusing on Southern Africa is useful, but South Africa is more advanced; for example, I attended an African utility workshop and South Africa had dealt with those issues years ago. So participants need a sense of “can I learn anything?”

It depends who is there to share experience and knowledge. It needs to be clear what South Africa can give and what it can take and this will depend on the selection of participants.

It is important that one not underestimate the impact of this attitude on all interactions with other leaders in Southern Africa, often placing other African countries in a subordinate position in terms of dominance of process and actual sanitation practice. It is not common for South Africans to consider different contexts and different approaches that may be instructive to each other. With a “good match” there is little doubt that South Africans would find there is a lot they could learn—or be challenged to consider in a different way.

SIGNIFICANCE FOR RECOMMENDATIONS

This sub-section informs the final recommendations section. First, training that can be applicable to a range of countries would be applicable to many places in South Africa. Regional approaches allow for economies of scale, and there is some commonality in officials facing some of the same problems of “nuts-and-bolts” issues. Second, South African cities could be matched with cities elsewhere to provide examples and mentors and for knowledge sharing. Finally, a South African-specific community of practice/platform for Metros could be useful in responding to context-shared strategies and approaches. Interviewees were clear that this would be relatively easy to establish based on previous relationships (which was also the case in Mozambique).

In short, the “exceptionalism” argument does not hold up well in terms of sanitation training. While there are clearly differences, there are enough similarities—beneath the surface of its Metros—to include it in the ASA. Having said that, the different approaches have different resource implications for the ASA and not all may justify its inclusion.

In terms of future relationships between countries in meeting sanitation and other challenges, it is worth noting that excluding South Africa would be reinforcing the divide and related perceptions. It would also be missing the lessons that key informants in the sector know that South Africa has to offer and to learn.

A final point is that in terms of logistical capacity (e.g., transport routes, services and overall infrastructure, networks, skilled coordinators), South Africa is in the strongest position in the sub-region to play a coordinating role, if needed. Some interviewees referred to initiatives that were based in other Southern African countries to avoid South African hegemony, but struggled.

SUMMARY

- From the data it is clear that there is a need for sanitation leadership training in all Southern African countries. Yet, it is also important to structure the training to take into account the important contextual differences. Therefore, the recommendations will include more than one approach to sanitation leadership training.
- Mozambique requires its own process (Angolan leaders could participate at a later stage if appropriate), not only because of its linguistic exceptionalism, but also because it has relatively stable governance, rapid urbanization, and needs to strengthen a decentralized approach in regions outside Maputo.
- In terms of linguistic exceptionalism, Madagascar could be linked to some Francophone countries.
- South Africa should be part of the ASA training, both to “give and take.” There are a few approaches that could be used; this requires its own process, which can be shared with other African countries either immediately or after they are more firmly established.
- Zambia would be a good location for training, taking advantage of and focusing on the challenges of institutional flux and rapid urbanization. Institutional flux is also being experienced in Malawi, and is an underlying challenge in other Southern African countries.
- Although rural sanitation is less complex than urban sanitation, it poses an ongoing challenge to most Southern African countries, particularly moving up the sanitation ladder. Zambia could also provide a

basis for leaders to share their rural challenges, such as Namibia, Botswana and Malawi, perhaps through a form of knowledge sharing.

- In terms of location and logistical capacity, South Africa offers a good base for coordination.

CONCEPTUALIZING THE PROBLEM

The sanitation conundrum is often stated and restated in the form of data outlining the extent and form of the sanitation backlog and the financial and other barriers to addressing it. In terms of this feasibility study, which primarily focused on urban sanitation, the most relevant question is what these challenges mean for leadership. To meet sanitation targets while maintaining current systems, the following list is just a sample of the challenges for which officials must formulate a response:

- Different parts of the city require different technological approaches.
- Need to engage with urban planners and financing agents.
- Need for alternative technologies in the face of water shortages.
- Payment for water-borne sewerage.
- Upgrading of informal settlements.
- Communication with citizens.
- Engagement and management of politicians.
- Fragmented nature of sanitation in different departments.
- Financing sanitation systems.
- Emptying pit latrines and septic tanks.
- Labor regulations for pit emptying.
- Fecal sludge management.
- Waste water treatment plants.

Interviewees were seeking guidance on a systemic level—as leaders, how can they improve sanitation in their area of responsibility? Different cities, towns, and rural areas face different challenges, but the linkage between these challenges is the need for leadership. What are the key decisions that they need to make as leaders in each of these “challenge” areas? What are their options and on what basis should they decide?

What interviewees were seeking was a process of prioritizing, then working through the top issues. Key informants argued that officials often claim that they have no problem in one area and upon further engagement realize that it is indeed the crux of their problem. In other words, they need mentorship and guidance to formulate a plan for the areas on which they need to work. Then, this would comprise the focus of their training.

“Experts and mentors” would use their expertise to develop the content of materials, focusing on leadership in each area of training. Leadership training means taking these topics and focusing on the elements on which a decision maker would need to act.

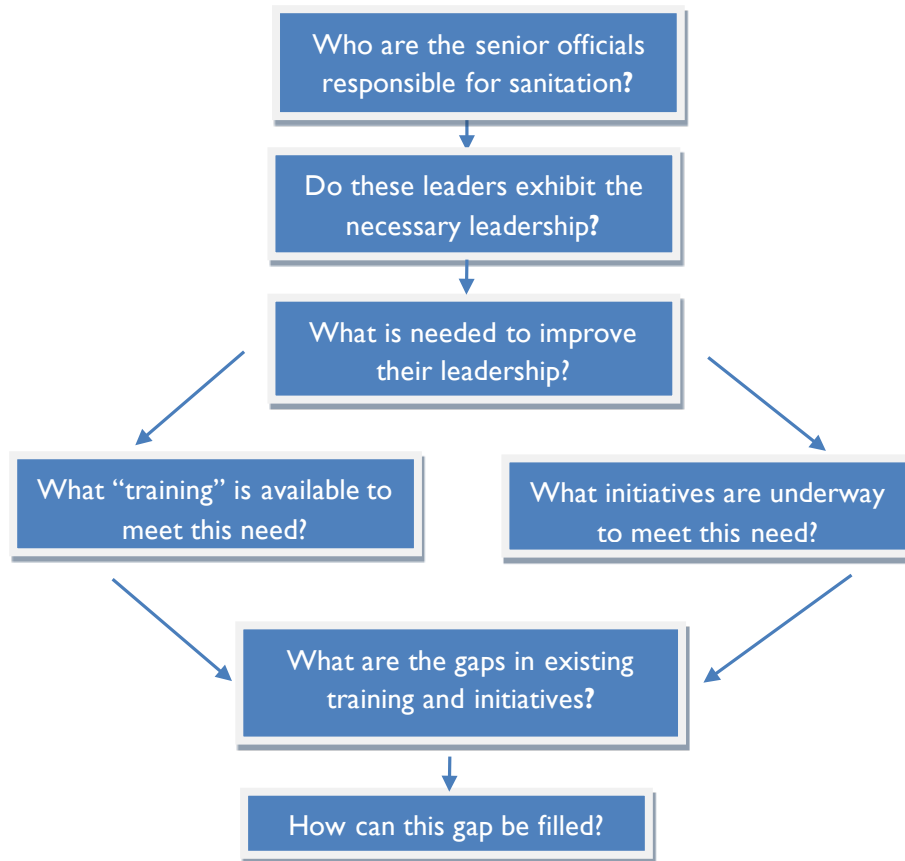
A basic technical understanding, as gained through either experience or other formal qualifications, is a good basis for officials and those responsible for sanitation to do their jobs. However, the lack of progress in sanitation may lead us to conclude that technical knowledge is “necessary, but not sufficient.” Less “tangible” qualities of leadership are needed: strategic thinking, innovation, changes in paradigm and approach, and creation of new systems.

Building their abilities in these areas, strategic thinking, innovation, and other less tangible qualities of leadership, needs to be embedded in practice. Interviewees indicated that training should be structured to apply these skills to each of the areas listed above, depending on what was prioritized for the areas where they work. In other words, it needs to help take them through the annual cycle, to identify what the challenges really are, and to support them through the process of change. In formulating a response, they will need to consider the realities of their context, including policy frameworks, political pressures and interests at play, availability of finance, and capacity of providers.

LOGIC OF FEASIBILITY STUDY

Within this context, this feasibility study used the following logic. Interviewees from a range of organizations were asked to identify the senior officials responsible for sanitation in their countries. Of course, interviewees also included officials themselves. Depending on the institutional context, many of these officials were responsible for urban and rural sanitation, while others focused on urban.

FIGURE 2: LOGIC OF FEASIBILITY STUDY (RESEARCHERS' OWN CONSTRUCT)



PRODUCTS OF FEASIBILITY STUDY

This study focused on identifying and unpacking the following.

TARGET MARKET

- What is the demand for training and who is the target market?

CURRENT TRAINING AND INITIATIVES

- What training is currently available?
- What relevant initiatives have failed, and why?
- What relevant initiatives are underway, if any?
- What are the gaps in existing training and initiatives to meet demand?

PROPOSED MODEL(S) AND NEXT STEPS

- What is the institutional context that can make such an initiative work?
- What models are suggested, with what products/incentives?
- What partnerships should be developed?
- What organizational structure is recommended to be effective and sustainable?

TARGET MARKETS

One of the aims of this study was to identify the target market. It asked: What leadership are you targeting to bring about change?

DECISION MAKERS IN SANITATION

The most obvious answer to this question is “people in positions with the power to make or influence decisions around sanitation.” This includes water and sanitation managers in cities. But, it also includes towns with one manager/engineer to handle all services. While this means that officials have a broader range of responsibilities, they are the same issues as in a larger city, with a different level of complexity.

In addition, there is a need to consider the growth path of large towns. There are rapidly increasing levels of density and a need to consider how rapidly growing towns will put infrastructure in place. Characteristics of urban, peri-urban, and peri-rural areas need to be considered along a continuum, and considered in formulating the substance of training. Yet, those engaging in deep rural sanitation work face different technical and behavioral challenges and should not be the focus of this initiative.

It is important that there are a few people who are trained per municipality, possibly including municipal managers and managers of other related service sectors. Right now, municipalities depend on one person who knows it all, who are “walking memory sticks.” This is important, because people move in and out of sanitation.

It is also possible to identify committed individuals with the potential to be sanitation leaders, who may have left government or work for other organizations that could be influential in sanitation.

To provide leadership training will mean that participants need a foundation of “hard skills.” Training will engage with and build on these skills.

LEVEL OF ENGAGEMENT

A common finding throughout Southern Africa is that the national level of government continues to play a significant role in sanitation, regardless of whether there is formal decentralization or not. In Mozambique, Zambia, and South Africa, the focus of training needs to include officials from national departments and ministries, but also needs to strengthen capacity at regional, district, and municipal levels. Therefore, leaders from all levels need to be the focus of training, with more emphasis placed on city and utility leadership, because they are the officials who are responsible for addressing on-the-ground sanitation challenges.

Arguably, problems that appear at the national level are frequently rooted in municipal or regional problems. This dynamic was highlighted by several interviewees in South Africa, and from interviews in other Southern African countries that stated the same.

It is also important that training reaches past the national level, since most dynamics in national departments can be difficult to change. For example, one interviewee described deep leadership problems in South Africa’s DWS:

“People in DWS don’t understand their role in the sector or don’t care. There is no ownership of engaging with the sector. They show up to represent DWS, but there is no real engagement. The Chief Director upward were “moved into positions” and do not necessarily have specialized knowledge. The Deputy Director Generals have political connections. There has been a technical ‘dumbing down’ in national government without enough interested and involved people and a decline in engineers.”

WIDER URBAN REALITY

Many interviewees emphasized that training needs to be located within the wider urban reality and range of decision makers, not cordoned off as sanitation only or operating in a “bubble.” This is especially the case with officials in other departments who are responsible for informal settlements, environmental and public health, planning, and finance. Interviewees in public health emphasized that health officials dealing with sanitation behavior change and infrastructure development required training. In terms of housing, it is important to liaise with slum dwellers associations, people in urban management (e.g., UN Habitat or Cities Alliance), and those thinking about settlement upgrading (e.g., housing agencies and urban development finance). In other words, training should not be just within a sector, but across sectors. One interviewee working in the sector in Southern and East Africa stated:

“Too many people think of the WASH sector as rural. Urban and rural are along a continuum, a spectrum of urban services located in urban systems. Urban

management of sanitation and waste management are part of a vast complex system. There is a need to understand urban people, baskets of services, urban waste management, and integrated liquid and solid waste management. This cannot be ghettoized. Sanitation cannot be separated from this wider reality and still work. So, it needs to be integrated into urban management thinking, understanding cities rather than demanding to talk to them. In other words, it is fundamental that we mainstream sanitation.”

POLITICAL ROLE/SUPPORT

Interviewees from all countries considered support and understanding of politicians to be one of the biggest changes to providing sanitation. They recognized that, while they may become stronger leaders, their actions could be circumscribed (at the least) by politicians.

While this point was made by interviewees in all countries, how this works in South Africa was described by one interviewee. He explained that the occupational ladder has become longer and people who complete courses say that they present ideas, but they never reach the Municipal Manager. The head of water and sanitation may sit four levels down (under the municipal manager, deputy municipal manager, and technical department head).

Interviewees from all countries argued that there was a need for politicians themselves to understand sanitation issues. Yet, their ideas differed about how to make that happen. Some interviewees felt strongly that, even with a turnover in politicians, politicians (at the city level, as well as those who serve on portfolio committees/advisory bodies) should be invited to leadership training. They can make a difference in budget allocations, political prioritization, and strategy at the city and ministerial levels.

There is a need to change political mindsets, so that politicians understand “what it takes.” It is hoped that this would affect officials who are politically deployed; perhaps they would have already been trained, improving their performance if moving into a sanitation position.

In addition, perceptions of being “left out” may create a negative response from politicians. For example, a Sanitation Game Changers workshop was called by the Premier’s Office in Cape Town in response to sanitation protests. All stakeholders except for city officials were invited. While there were other dynamics at play here, the politics of exclusion need to be considered.

A key point made by an interviewee from Zambia was the importance of “getting politicians and officials together” to build politicians’ understanding of the importance of sanitation. It was striking that simply creating and facilitating this space could have a significant impact on sanitation. The suggestion was that selected, specific modules could be developed for politicians to be included. This could be an introductory module covering key strategic issues that need to be considered in sanitation and their importance to users, and an overview of financial considerations.

An alternative point of view put forward by some interviewees, particularly those familiar with the approach of eThekweni water and sanitation, was that “how to manage politicians” should be one of the modules in the training itself. For example, leaders need to highlight and emphasize the benefits of

sanitation to politicians: positive publicity, customer satisfaction, and service delivery aims. Then they can tailor what they want politicians to learn or read.

Perhaps the subtlest point was made by an interviewee from Zambia, who said:

“Politicians rely on heads of utilities for information and advice, and so they will know how to achieve the good reception of politicians.”

His point was that heads of utilities were the best to assess their local situations and decide whether to include politicians, and which ones.

HUMAN RESOURCE ISSUES

NEED FOR EXISTING OFFICIALS TO HAVE THE CAPACITY TO MAKE GOOD DECISIONS

The point that was made consistently across all Southern African countries, including South Africa, was that the formal educational system may provide skills for engineers, technicians, and scientists, but it fails to provide them with the necessary strategic or tactical skills. This is where the demand for training that is embedded in practice was raised by Southern African interviewees. Linking training to conducting one’s job ensures that it responds to real challenges and that the leadership skills in these areas can be developed.

The fact that this issue even arises in South Africa, where one might assume there is strong training, is evidence that it is a widespread problem throughout the region. In South Africa, young professionals who complete university lack practical experience, because existing professionals or officials are too busy to provide mentorship, so that the graduates cannot watch, learn, and absorb. After alarm bells were sounded a decade ago about the lack of qualified engineers and technicians in South Africa’s 278 municipalities (with the exception of large cities where most engineers are located), the number of 25 to 34 year-old qualified engineers and technicians increased significantly. This age group is critically important, because often the generation of “post 1994” 35 to 49 year-old engineers and technicians lacked accredited training.³⁰ However, most are technical, not engineers, and are not decision makers. As one interviewee stated:

“They are trained how to follow process not how to assert themselves to guide strategic processes. Yet, they are often the only ones in municipalities left to do so.”

HOW OFFICIALS ARE APPOINTED

Officials are appointed in most of Southern Africa in two ways (and sometimes a combination of the two). First, they may have been appointed with a technical degree that nominally included a sanitation module, but lacks a focus on the practical issues and leadership challenges around sanitation; and/or second, they may have been hired based on their political connections or even “deployed.” In both

³⁰ Lawless, A. (n.d.). *Number and needs in local government: Where are we now?*

cases, there is even more need for leadership training around sanitation. The challenge will be that the training assumes at least a basic level of technical understanding.

In Zambia, according to a number of interviewees, the “track” for high-level positions in the sector requires a degree, usually technical, and experience. Yet there are also officials who come to the sector with little water and sanitation experience that may have been appointed through political connections rather than sector-appropriate knowledge and skills. Even with leadership skills to garner technical skills from those they manage, it is a challenge to make strategic decisions without experience or training in the sector. When asked to think of all top staff, one interviewee said that only one of six to seven managers have moved into positions on the basis of demonstrating their abilities.

Many public sector leaders are political appointees, who are not qualified in the field of sanitation, but have competency in other areas. They need to understand sanitation and what drives budgets. They also need to be able to envisage sanitation challenges, not “one size fits all,” but plan from where they are.

But, training will achieve little where officials have been deployed to serve another agenda without any training and, in that case, are often focused on protecting themselves and their jobs, not what is needed on the ground.

INCENTIVES

INFORMAL INCENTIVES

Overall, the emphasis of the people who were interviewed was that training is needed so that people can do their jobs and fulfill their commitments to delivering sanitation. It seems that this is the case for the most senior officials who develop on the job, through direct experience and engaging with challenges with which they are confronted. They may be interested in engaging with other leaders, if they perceive it will assist them, and this may be more attractive if linked to a process or institution with prestige or through which they may gain recognition. In short, the key incentives are whether training is practically helpful and/or supports their status.

There are a range of informal and formal incentives for officials to participate in sanitation leadership training. Informal incentives include wanting to be able to do one’s job better, which shows a level of commitment that is likely to strengthen interest in training. Informal incentives can also be more status-driven, such as having participated in something with prestige due to the reputation of the program or the organization to which it is linked (e.g., top universities). For senior officials in decision-making positions (the target group for training), building one’s profile, gaining recognition, and strengthening one’s network is most significant.

FORMAL ACADEMIC QUALIFICATIONS

Of course, if a formal academic qualification were offered around sanitation leadership, officials from any of the Southern African countries may wish to undertake this training. However, while having a degree may help in landing a job, they are typically of little interest or are too time consuming for senior officials who are already in top positions. Having study leave is impossible for people within these highly demanding positions, which are often key to operations. While additional formal qualifications may increase an official’s informal status, they rarely have a direct impact on salary increments at this level.

For top officials who are not yet “running the show” and can utilize study leave, a recognized qualification may assist them in their career by bolstering their own confidence and capabilities and through increased status conferred by others in the sector. When courses are not offered in country, officials could do courses elsewhere. One interviewee described a program run by Stanford University and the National University of Singapore’s Management Development Program in which captains of industry share success stories and discuss. Although not focused on water and sanitation, he benefited from this management course. However, few, if any, interviewees said that additional formal qualifications were required for promotion.

It is important to recognize how pursuing a university degree can unintentionally act as a disincentive for officials. First, the admissions requirements can highlight an applicant’s inadequate prior training when they are not admitted. Second, the degrees are time consuming and there is a poor record of students who complete the degree. This is particularly the case when even a research paper/thesis is required. Starting a degree enthusiastically, committing time and resources, lagging behind on delivering work, and finally not being able to complete the thesis will no doubt distract officials and lower their morale.

CONTINUING PROFESSIONAL DEVELOPMENT (CPD) COURSES

Perhaps more promising are professional courses linked to a university, such as UEM in Maputo or University of Zambia in Lusaka, or to professional bodies in South Africa. After completing these modules, participants gain a certificate, and depending on how they are structured, other recognition.

There are CPD modules offered by professional bodies, including the Institute of Municipal Engineering of Southern Africa (IMESA), Water Institute of South Africa (WISA), Engineering Council of South Africa (ECSA), and South Africa Institute of Civil Engineering (SAICE) in South Africa. These can help a professional maintain or expand his/her career. Members get points that allow them to complete modules to challenge, update, or expand their knowledge and exposure base. Since this is needed to remain a member of one’s professional association, there is a built-in incentive.

Interviewees were positive about the development of CPD modules focused on sanitation leadership. These could be developed, adopted by professional bodies or universities, and used throughout Southern Africa.

COMMUNITIES OF PRACTICE

As highlighted elsewhere in this report, whether in coordinating forums or in more consciously structured initiatives, interviewees all reported finding these bodies very useful in doing their job, and felt that they had potential in contributing to their professional development. Existing communities of practice could be extended or duplicated to focus on sanitation issues. This is the basis for the recommendation regarding Aquashare in Mozambique and the CWMF in South Africa. The informal incentives described in the report, which are most attractive to senior officials, would apply.

LEGISLATED COMPETENCIES

There did not appear to be minimum competencies for sanitation managers that are enforced in any of the Southern African countries. Given the status of sanitation-related training in most countries, using a legislated approach as a negative incentive is highly unlikely to work.

However, senior officials interviewed in South Africa argued that a negative incentive may be effective in that country. This is in response to state capture, which South Africa has battled with since the 1990s and has led to a de-mediocrizing of the civil service. Appointments are often made through politics, so there are limited qualification frameworks in place. There is increasing recognition of the need to keep politics out of service provision. One idea is to mirror Gazette 29967 (2007), which amended the Municipal Management Finance Act by spelling out the minimum competency required for Chief Financial Officers. Without this competency, a Chief Financial Officer will not be hired (or have his/her contract renewed). In response, an action learning program was developed via SALGA where an intensive two-year finance course was provided, and six higher education institutions issued the certificate.

In South Africa, minimum competencies for anyone appointed as Water and Sanitation Managers could be added to the Municipal Systems Act, which already has requirements for Chief Financial Officers and City Managers. This would get politicians to support the training, because they respond to directives from “on high.” It also gets funding and legitimizes the project.

SUMMARY

Five main points are relevant to the demand for training:

- Officials able to make or influence decisions relevant to sanitation must be the focus of the training.
- This group should be broad enough to take the growth of towns/cities into account, as well as ensuring that there are a few officials from each key organization.
- Who is included should be chosen by heads of utilities, in conjunction with those managing the training.
- It does not need to be a question of whether politicians and a range of “urban” decision makers are included or not. They could be included in selected sessions (depending on the model).
- Creating and facilitating a space for politicians and officials to engage on issues of sanitation is important and could be initiated as part of the training (and hopefully maintained by themselves afterward).

Points relevant to human resources and incentives include:

- Informal incentives include the ability to do one’s job better, an improved profile in the sector, recognition, and building one’s network.
- Two main approaches emerged. First, the establishment of communities of practice with a specific focus on sanitation and linked to mentoring and practice; and second, CPD.
- Formal academic training is not a priority and is not a significant factor once officials are in senior positions. The difficulty of completing an academic degree while working is likely to be a negative experience for those embarking on it.
- A negative incentive of legislated competency for a Water and Sanitation Manager may work in the context of South Africa.

CURRENT TRAINING AND INITIATIVES

This section reviews the relevant training and initiatives that are in place regionally, in South Africa, Zambia, and Mozambique. They are described here, noting elements that may be of interest or may offer opportunities for this sanitation leadership initiative now or in the future. The following section indicates the authors' recommendations.

REGIONAL/GLOBAL FOCUS

AFRICAN CENTER FOR CITIES (UNIVERSITY OF CAPE TOWN [UCT])

Working across Africa, the African Center for Cities (ACC) considers alternative, sustainable infrastructure and technologies for cities, within their specific context, but also aimed at identifying systemic responses. The ACC has worked with the City of Cape Town and in Kibera, Nairobi.

In Cape Town, they also have a “city lab” where they take an issue and put stakeholders together to co-produce knowledge, for example, “we don’t have the answer, but we are experimenting together,” with the city as a partner.

The ACC could collaborate with the GSDPP in training public sector officials in sanitation leadership, as described below.

UCT GRADUATE SCHOOL OF DEVELOPMENT POLICY AND PRACTICE (GSDPP)

The GSDPP has three approaches that are relevant to leadership training:

- GSDPP’s flagship program produces mid-level public officials with an M.Ph. in development policy and practice (through the Faculty of Commerce), who study part time through coursework (two weeks twice a year) and inter-sessional work linked to a mini-dissertation. Senior public sector officials across Africa are brought in to lecture (e.g., political economy, development economics, public administration, M&E, social policy). The advantage is that the student who is trying to solve a problem within his/her work and is an emerging leader can seek mentorship and supervision around strategy problems. There is a vision of establishing a school of public governance in the future. At most, sanitation could be incorporated as one module and students could focus on sanitation challenges in their mini-proposals.
- The Building Bridges program provides two-week residential training on leadership development. It is Africa-wide “executive education” and participants receive a certificate of attendance. There are different courses that all relate to “strategies for change.” Again, the GSDPP would need to be approached to incorporate a theme of sanitation (or possibly a specialized extension of this program). The current program is run with donor funding, but the GSDPP is open to discussions on how to extend the focus of this program or to create a similar one focused on sanitation.
- Finally, a few years ago, the GSDPP developed workshops for the City Support Program, with support from World Bank and the Treasury. Drawing together senior officials, they spent a week on a topic (social infrastructure investment), learned from experts and each other, and created a space for political principals to engage with officials. The GSDPP offered a platform and its strength of the pedagogy of teaching adults and getting processes working through networks.

GLOBAL WATER OPERATORS PARTNERSHIP

UN Habitat supports the Global Water Operators Partnership (each country has one), linked to the African Water Association. It focuses on management and improving public performance, and links utilities to learn from each other through knowledge exchange, for example, with Harare, Bulawayo, and Mombasa. So, there is direct engagement around issues municipalities in crisis want to discuss.

In terms of water and sanitation training for utility leaders, the chairperson indicated that the new approach is likely to start with a diagnostic strategic session and then utilities can go through stages: 1) Benchmark (confidential diagnostic tool) to help find similar municipalities to match; 2) partnership (interventions); and 3) and manager training (courses tailored for people who indicate what they want to learn). This is an approach that can be instructive to planning a sanitation leadership training, even if outside of this initiative. Alternatively, leaders of the initiative indicate that there may be opportunities for sanitation to be considered as part of its diagnostic stage and in the other stages outlined above.

EXISTING TRAINING

Existing training in Zambia, Mozambique, and South Africa is described below. It is immediately clear that South Africa has many training initiatives, with few from the rest of Southern Africa.

ZAMBIA

NO ACADEMIC INCLUSION, BUT INTEREST BY OFFICIALS

As in other countries, a top official explained that there is no specific training offered in sanitation; it is a small part of other degrees in engineering or environmental health. Generally, the position of manager requires an engineering or technical degree, 4–5 years of experience, and knowledge of the water and sanitation sector.

However, most managers have received little training on management, and they often pursue their M.A. or complete courses with academic certification to improve their career track (it seems that these are mostly online or outside Zambia). While the University of Zambia has an Integrated Water Resource Management (IWRM) Center that is critical to implementation, it currently does not include leadership.

A consultancy project is currently underway, so that Zambia can build a college focused on water and sanitation, to which utilities can send mid-level professionals for accredited training. It is not clear how this would be located, perhaps at a public college and outsourced to the private sector.

However, interviewees indicated the need for more senior training; for example, the regulator, managing director and other directors of utilities, the Water Resource Management Authority (its groundwater focus is key to on-site sanitation), and the new DWS.

DONOR TRAINING

Donor “partners” play an important role, including the World Bank, African Development Bank, and European Commission. This donor group includes international NGOs with a local presence, particularly WaterAid and WSUP. One NGO leader describes its staff as generalists who would benefit from more specialized knowledge in sanitation.

The closest relevant “training” that interviewees could identify is through donors. Donor funding is typically provided with technical assistance to strengthen institutions and support funded projects. For example, the Ministry of Local Government and Housing identified areas that need support, for example, the M&E system and communication. Technical advisors (consultants) are often drawn in to help. But, it is difficult to transfer skills.

Currently, there are performance agreements with management and the board, which were developed through an earlier USAID project. A sustainability agreement was proposed, with indicators of performance to be monitored.

RELATIONSHIPS WITH OTHER UTILITIES

Links are being developed with other utilities, such as the National Water and Sanitation Corporation (NWSC), Uganda. Staff can go to Uganda to learn how to conduct business, and the Lusaka Water and Sanitation Company can engage the consulting arm of the NWSC for technical assistance.

OPENINGS FOR LEADERSHIP TRAINING IN SANITATION

There are three changes in the Zambian context that may provide impetus and openings for leadership training in sanitation to be introduced:

- There is increasing recognition of the need for capacity building and leadership. A new capacity building strategy for the water and sanitation sector has been developed by the Department of Local Government. Training still needs to be designed.
- A change in institutional responsibility is underway from the Department of Local Government to a new DWS, with a sanitation directorate.
- Utilities are now responsible for on-site sanitation. This creates an opportunity to move from project-based engagement in sanitation to a wider strategic approach.

MOZAMBIQUE

There is an enormous lack of formal training possibilities, as is reflected in the hiring of new sanitation experts at the municipal level without any formal qualifications or previous experience in the sector. The website of the formal training center for water and sanitation—CFPAS—indicates that it offers a three-month technical course, as well as a one-year professional diploma in water and sanitation. However, there appears to be limited demand since, according to three key informants in Maputo, CFPAS has gone dormant despite 20 years of ample and sustained donor funding. The existing bachelor’s degree and licenciatura program in water and sanitary engineering at ESUDER is attracting more and more students, but has not yet made a dent in the scarcity of suitably qualified staff at the municipal level. The licenciatura and master’s degree program in hydraulic engineering and water resources offered by the Faculty of Engineering at the UEM in Maputo pays only scant attention to sanitation, displaying a strong bias toward hydrology and water resources engineering.

Until recently, politicians have shied away from the tremendous sanitation challenge confronting their citizens. Not even the CRA took on sanitation until recently. The tendency has been to leave the

responsibility for the provision of sanitary facilities to individual households, with the exception of middle-class citizens residing in the so-called *cidade de cimento* (cemented city).

Since 2011, the sanitation sector has received more attention, as reflected in the adoption of a Strategy to provide Water and Sanitation (in 2011); and a widely attended conference for the sanitation sector that was held in Maputo in 2014, trying to sort out the overlap and divided nature of different state agencies that play a role in sanitation. The main role is played by national organizations located in Maputo (CRA is the regulator, AIAS is responsible for sanitation, and DNAAS is the policy maker), but there is recognition that sanitation in other cities is being neglected.

The sub-sectoral Group on Water and Sanitation is a mechanism coordinated by DNAAS and acts as a consultative forum to provide technical support to the government in addressing national water and sanitation issues in order to meet MDG 7/SDG targets and Action Plan for the Reduction of Absolute Poverty II (PARPA II) goals. The Group on Water and Sanitation meets monthly, and comprises technical officers from government (central and local) and other development partners, including UN partners, donors and NGOs. The following government departments participate: DNAAS (Sanitation Department, Rural Water Department, Urban Water Department, and Planning Department), Ministry of Health (Environmental Health Department), and the CRA.³¹

Eduardo Mondlane University (UEM) is now offering an undergraduate environmental engineering program at the Faculty of Engineering and the Faculty of Education, and an undergraduate environmental education program. Through these programs, the students acquire some skills about sanitation, but UEM would like to add specialization in sanitation or even an undergraduate program in sanitation.

SHORT COURSES

In terms of short courses offered in the area of sanitation, programs are offered in a sporadic way by NGOs and some ministries, working with public health, environment, and water issues. These are typically one-off courses, often linked to projects. Yet, on such a small scale, it is unlikely to have any significant impact.

UNIVERSITIES IN SOUTH AFRICA

EXISTING DEGREES

As explained in the introduction, most universities offer technical training that may cover an aspect of sanitation or management. The universities with water and sanitation-related programs are covered in Annex B.

UCT GSDPP

The GSDPP has three approaches that are relevant to leadership training, and are noted under the regional section above.

³¹ Waterwiki.net. (2017). *Mozambique water sector coordination*.

UNIVERSITY OF WITWATERSRAND (WITS UNIVERSITY), SCHOOL OF GOVERNANCE (WSG)

WSG consistently offers a range of specialized and flexible short courses in specific management areas. They are offered as single blocks of study, block-release sessions over a number of months, and workshops. It offers a certificate program in the development and management of local government, which is a multi-disciplinary program that teaches “various logics, forms, and approaches for the development of results-based management systems in a sensitive manner to local context.”

It is likely that WSG would consider tailoring a course on sanitation leadership, as would UCT.

GRADUATE SCHOOL OF BUSINESS (WITS UNIVERSITY, UNIVERSITY OF KWAZULU-NATAL [UKZN], UNIVERSITY OF THE WESTERN CAPE [UWC])

Public sector M.B.A.s use team work and develop horizontal linkages so that graduates leave with a rich network. A few interviewees indicated that there had been attempts at using business schools for training, but both the cost and time commitment meant that busy officials found it difficult to attend.

UKZN (POLLUTION RESEARCH GROUP)

UKZN has a professional Pollution Research Group that operates autonomously. With Bill & Melinda Gates Foundation funding, it has a laboratory and 20 visiting researchers, as well as five staff members who are available to provide support to others at no cost.

A partnership between the university and the municipality in water research has been established through a three-year memorandum of understanding. It is a R2.2 million per year, demand-driven program, which helped develop plans that attracted national and international funds (Gates Foundation and Water Research Commission [WRC]). Relationships with the National Research Foundation, Department of Science and Technology, SALGA, and WRC make the Pollution Research Group more permanent, accessing more resources.

UKZN works with other universities in South Africa, such as UCT and Cape Peninsula University of Technology (CPUT), so that they can follow suit in establishing similar relationships with the City of Cape Town. It also participates in peer-to-peer learning with other municipalities and universities in Africa, which gain inspiration from seeing issues in practice, for example, in Uganda and Lusaka. Municipal staff match their day-to-day job with a higher degree. They are introduced to new techniques through chemistry, agriculture, civil engineering, development studies, or the medical school.

IHE Delft Institute for Water Education (IHE Delft) developed a Massive Online Open Course (MOOC) on fecal sludge management, working with 5–7 universities to co-produce it. The MOOC is not yet accredited within UKZN, which wants funds to accredit it.

PROFESSIONAL BODIES

There is an overall sense that Skills Education Training Authorities (SETAs) have “failed us” and there is a need to fill the gaps in other ways. Professional bodies have developed continuing education modules to strengthen the skills of professionals. For example, WISA promotes the professionalization of process controllers and superintendents of waste water treatment plants. SAICE, IMESA, and ECSA all offer CPD courses.

GOVERNMENT AFFILIATED OR FUNDED

MUNICIPAL INFRASTRUCTURE SUPPORT AGENCY (MISA)

While interviewees agreed that MISA could be a useful point of engagement for leadership, it was described as “failing dismally.” The Minister of Cooperative Government and Traditional Affairs brought in Shaun Phillips, a senior engineer, to run MISA. He set up support contracts that brought in the private sector and promoted municipalities with funding from the Treasury. There were regional management support contracts for rural areas (21 District Managers with a need for greater experience), with a framework contract to bring expertise to a group of towns. World Bank engaged with the initiative after the head of MISA left in 2015, but the initiative crashed without a champion.

DWS LEARNING ACADEMY

DWS has its own training academy for artisans and targets its junior staff. It was widely agreed that the ASA would not be an appropriate place to train leaders.

SALGA LINKED PROGRAM (JAPAN INTERNATIONAL COOPERATION AGENCY, SMALL TOWN REGENERATION PROGRAM, BENCHMARKING INITIATIVE)

In addition to its virtual training and support of the CWMF, SALGA supports a range of other programs to help municipalities improve water and sanitation delivery. For example, SALGA and DWS are working with the Japan International Cooperation Agency on training that will be implemented incrementally. Phase I will focus on non-revenue water with eThekweni, at the DWS Training Center—eThekweni will be the hub of operations and maintenance, Cape Town will be the hub of scientific services, and Gauteng Province will be the hub of engineering (with Rand Water). Another program run by SALGA is the Small Town Regeneration Program, which aims to help keep officials in towns through capacity building.

ETHEKWINI MUNICIPAL ACADEMY

The eThekweni Municipal Academy offers two programs that focus on leadership. The first is informal: Thought leaders speak to senior officials in various forms, from breakfast seminars to conferences. The second is an Executive Leadership Management Development Program (ELMDP). It offers formal training for local government leaders, provided by lecturers from local universities, based on modules that are recognized by SALGA. There is potential to explore linkages with the ELMDP.

MUNICIPAL INSTITUTE OF LEARNING (MILE)³²

MILE offers “master classes,” which it developed in collaboration with the WRC; there is a module on sanitation. Materials were developed by the WRC on revenue management, strategic planning, and community engagement. It utilizes a form of horizontal learning in which a topic is introduced and then participants share their experiences. It has mostly been taken up by Metros (rarely the municipal manager). It is expected that this will eventually fall under the eThekweni Municipal Academy.

³² MILE. (2010). *Enhancing local government capacity: For practitioners, by practitioners*; and MILE. (2016). MILE prospectus 2016/2017.

Participants get CPD points for the ECSA. District municipality officials who are dedicated sanitation or technical people attend the classes; however, they are not decision makers.

CITY SUPPORT PROGRAM

The City Support Program ends in a year, in which the Treasury provides technical assistance to Metros on improving economic growth, focused on mayors and city managers. There is a need for a more sustainable program on city leadership and transformation for senior leadership teams. There is a possibility that this may continue in a different form.

PRIVATE TRAINING

Annex C provides a list of some private training initiatives in South Africa. There are plenty of training providers, if funding is available.

LESSONS FROM OTHER INITIATIVES

WATERNET (REGIONAL, BASED IN ZIMBABWE)

WaterNet is an example of one way that a community of practice throughout Southern Africa can be created—an annual symposium drawing together professionals and a research fund that professionals could access to investigate a topic/approach relevant to their work and feed into the symposium. It also has a regional M.Sc. program run at the University of Zimbabwe in which students spend a year on coursework and then focus on practical problems in their home countries for their thesis (a typical master's degree for working people, as described above),

A symposium across all three regions, East, West, and Southern Africa, may be worth considering once the ASA has run for some time. Whether professionals may be interested in conducting research on sanitation challenges could also be explored.

TRANSPORT STUDIES PROGRAM (UCT DEPARTMENT OF CIVIL ENGINEERING)

The Transport Studies Program illustrates what creating a master's specialization or dedicated degree entails in South Africa.

A post-graduate program was started, targeting officials in government departments. Civil engineers get training, but programs do not cover contemporary, practical policy issues, so graduates are not equipped for the challenges they face. There are three approaches:

- First, an existing master's was taken, and transport was added as a specialization. The issue was whether interested applicants could meet the requirement of honors of the equivalent or if, once in, they could make it through the program. It was two-thirds coursework with an intensive six days of block release and one-third minor dissertation; and completion was poor. A handful of the 20–30 students enrolled chose not to do the full degree, but to attend lectures and get a certificate of attendance (to keep professional accreditation).
- Second, in response, a specific named degree, Master's in Transport Studies, was formed that was all coursework and projects and thus more likely for students to complete.

- Finally, there was still a great need in Gauteng Province to upskill the senior officials in the Department. Therefore, short courses at the appropriate level were developed, which were tailored to the Department's needs.

The main lesson learned is that starting an M.A. through an existing degree is relatively simple through the Department of Higher Education and Training (in this case, a master's degree in engineering, with a focus on transport studies). It is a question of specialization only, making an existing degree into a multi-disciplinary one. However, this degree is difficult for officials to gain entrance and to complete. Having a "named degree" means that there is added flexibility in format toward the practical, so students are more likely to complete it. However, gaining approval for the degree is laborious and in this case took more than two years, even requiring the intervention of the Vice Chancellor.

WATER INFORMATION NETWORK

Linked to the WRC and SALGA, the Water Information Network has a "learning journey" program that supported municipal water and sanitation officials to visit another municipality. The interaction allowed them not only to view the local situation there, but also to learn firsthand by interacting with officials there. This provided "ah-ha" moments for officials and nurtured introductions. An ASA should allow for this type of practical interaction by convening sessions in different locations, and can learn from the Water Information Network's experience and its approach is expected to result in sustained relationships between officials.

INITIATIVES THAT DID NOT WORK AS ANTICIPATED

Doing the same thing over and expecting different results is known to be a poor choice. Given the extensive efforts that have been made in South Africa, the examples below are drawn from that country. However, the lessons learned are widely applicable within the region. Below are some examples of why past initiatives did not work as anticipated:

- In the first two phases of the CPUT's current project, it tried promoting academic training and cognitive development, hoping that this would translate into occupational competency. The lesson was that many training attempts have not worked, because they are not linked to practice and they have not been formalized by linking them to competencies.
- National Treasury's Infrastructure Delivery Management System was caught in a pecking order struggle over who should lead it. The lesson was that getting the right partners is key.
- Rolfe Eberhard, an independent South African public policy expert, was part of developing a proposal that had coaching and other elements. The aim was to create a blended approach of leadership and content/technical management. Ultimately, it did not obtain the necessary finance and backing.
- Development Bank of Southern Africa (DBSA) ran a program that placed skilled people alongside officials in municipal water and sanitation departments, expecting officials to learn in the process. Officials did not take ownership of the program or maximize its benefits. The program was sending down placements, because municipalities had failed. So, it backfired.

- Geraldine Schoeman, Director of Schoeman and Associates, developed a funding proposal for the Energy and Water Skills Education Training Authority (EWSETA), which would be implemented in line with regulations, but it did not happen, perhaps because it was not part of the business plan of the DWS (although it did take steps to promote it for a few years at the start and again a few years later). The Water and Sanitation School was to be located at UWC, with the aim of ensuring municipal excellence.
- Linked to the above efforts, Neil Macleod, an independent consultant and former Head of eThekweni Water and Sanitation, was involved in years-long attempts to access SETA funds to set up a municipal training initiative. Even the Presidential Infrastructure Support Commission (PISC) drew together SALGA, MISA, SETAs, universities, World Bank, and municipalities together to pursue this. They tasked the Deputy Director General for Social Projects to set it up. There were two enthusiastic meetings, and then it died. It appears that this was because the person who was driving it left her position.
- Minister Kader Asmal (Minister of Water Affairs 1994–1999, Minister of Education 1999–2004) supported the National Community Water and Sanitation Training Institute in Petersburg, but it does not include high-level leadership. This was a lost opportunity. This is the same situation with the DWS Learning Academy, which targets artisans and junior staff. It was widely agreed that the ASA would not be an appropriate place to train leaders.
- The Department of Cooperative Government and Traditional Affairs is not enforcing municipal competence. Geraldine Schoeman developed competency descriptions, but there was a lack of political will and the unions were against them. Regulations exist, but have not been promulgated.

INITIATIVES UNDERWAY

The following initiatives are underway and could dovetail well with ASA.

SOUTH AFRICAN SALGA CENTER FOR LEADERSHIP AND GOVERNANCE

SALGA has established a virtual leadership and governance training center in partnership with universities and other institutions. It trains councilors, including municipal leadership and municipal managers, section 57 technical directors (WSA and other services), and direct reportees of the technical directors. The aim is to help achieve regulations. It is funded by the Local Government Skills Education Training Authority (LGSETA). The SALGA CEO says that “partnership is an important component” of SALGA’s work. They are trying to streamline training so that all work having to do with leadership needs to go through the single channel of SALGA. Given that an academy would focus on municipal officials, SALGA’s support would be essential. To consolidate efforts, the ASA could be linked to the center by 1) helping to develop virtual materials linked to sanitation; and 2) providing value through face-to-face engagement around sanitation leadership, linked to the center.

STELLENBOSCH UNIVERSITY (WATER INSTITUTE AND SCHOOL FOR PUBLIC LEADERSHIP)

A water governance and leadership course is being piloted to reach Tertiary and Vocational Educational Colleges and senior municipal officials. It will reach all district municipalities country-wide, with the invitation for 1–2 officials going through the municipal manager. Altogether, there will be five short courses nationally. Participants will gain an occupational standard National Qualifications Framework 7/8.

This is paid for through the EWSETA, which is a special project; EWSETA occasionally makes exceptions in support of the public sector. This program developed out of a study conducted by Stellenbosch, which showed that technical and vocational training works when it is linked to industry and there is industry buy-in. There is a scope to insert case studies around sanitation into the curriculum at this early stage of development, with enthusiasm from the Project Manager. Stellenbosch is also developing a master's degree in Integrated Water Resource Management (IWRM) (the curriculum is being developed now). A module on sanitation could be added.

CAPE PENINSULA UNIVERSITY OF TECHNOLOGY (CPUT)

The first phases of Framework for Education Training and Research in Water focused on post-graduate specialists, but this translated poorly into the workplace. So, the third phase of CPUT's project is occupationally oriented on the basis of South Africa's Quality Council for Trades and Occupations, which uses International Labor Organization codes to write qualifications. Priority occupations were approved by the Water Sector Leadership Group (a multi-stakeholder group convened by DWS) and curriculum at the post-graduate level is being developed by expert practitioners. Competencies are being developed for practitioners in water resources planning, water use authorization and licensing, water regulation and compliance, water liaison and social technology, and water infrastructure. Skills and capacity development is needed to make the range of institutions work. However, one interviewee indicated that once the occupations are chosen, it is "closed" to additions—and that leaving sanitation here could cause problems in the future.

CPUT envisages the establishment of a network of practitioners across these competencies to form Communities of Expert Practitioners in the Water Utility Leadership (as part of WISA) with cutting-edge capacity and core learning. This would be the sort of "elite club" that professionals would be inducted into based on standard criteria and competencies, and through practice and making contributions to the sector. Sanitation competencies need to be developed, and the timing of a sanitation initiative means that there would need to be close communication and cooperation with CPUT for both to benefit.

PROPOSED MODELS

VISIONING

Interviewees had an opportunity to describe what type of training they would find most useful. The following points were made:

- Must link to practice:
 - Share war stories and ideas about "how to." Move on to complexities.
 - Need interactive, practical help to link theory with reality (bigger picture).
 - Need to avoid "shop talk," so provide clear tools and measure impact. Link to benchmarking performance in the field after receiving this training (is it possible to link to a financial incentive?).
 - Community of practice (peer to peer) in which people report back on what they have tried in their home cities.

- Need to be able to take back to municipalities to do themselves. Research by Allyson Lawless shows that the problem is that people were pushed into management, and now struggle with application. There is a need for application and physical exposure, i.e., mentorship while working on the problem.³³
- Safe space for dialogue, interaction, and relationship building:
 - Not a one-off event or a “silver bullet.”
 - It is about networking, engagement, and relationship management and building (“you can contact someone if you have an issue”).
 - Need a safe space to consider how to solve problems and enable people.
- Time factor:
 - Most interviewees recommended two full days every few months, saying “You will lose people if it is a week long.” Those envisaging a certificate considered an intensive, week-long course every two months, so that participants can address specific issues over two years.
 - This points toward more of a community of practice or professional courses structured as “block learning” (an intensive week at the beginning of each term). Few, if any, interviewees were interested in a typical degree course.
- Location and role of virtual learning:
 - Distance-based training is a problem, because people struggle with incentives and time. Often, officials who need training are working in crisis mode; if they are not away from the office, they get sucked back into or distracted by workplace demands. In addition, one interviewee exclaimed “when people meet, they are excited, so they continue!”
 - No one advocated virtual learning, nor considered it to offer an incentive. It also lacked the direct application and personal interactions that were consistently emphasized as important by interviewees. However, there is no doubt that logistics and costs make virtual learning accessible.
- Structure (to inform model):
 - The training should be focused on learning, sharing, and peer review.
 - No set lectures, but that interesting guest speakers are brought in around a topic to spark discussion.
 - Participants come with a problem, and then the ASA brings people in to provide information/training/experience around a specific issue. Exposure helps people understand.

³³ Lawless, A. (n.d.). *Developing a municipal engineering academy*.

- Country-specific or targeted city sharing:
 - It adds interest to see issues applied outside South Africa. It opens people’s eyes to see other places and how other models work.
 - There is a need to engage with the local political context to assist officials in tailoring learning appropriately. Combining participants from different contexts would make this impossible.
 - Develop “good matches.”
 - A course outside their country may be attractive, but needs to be cautious about the group containing too many cities with local specificities, where all time is spent understanding the different contexts and little time is left for the task at hand.

TOPICS

The focus of this feasibility study did not include the substance of the training, but simply a basic unpacking of its “leadership” focus. Specialists will develop the substance at a later stage. However, some points may feed into that process:

- Start with the necessary leadership elements, such as customer relations, finance/tariffs, governance, and dealing with policy and politicians.
- Decision makers need to understand water and sanitation holistically, in terms of consequences of their decisions, for example, impact on women and children and on the economy, and what can go wrong. They need to understand the impact of water and sanitation and how it makes a difference, which shows why they should drive this process.
- Outcomes and Impacts:
 - Evidence of improvements in sanitation leadership in the official’s area.
 - Growing network of people who have been through the program (technical networking for problem solving).
 - Established community of practice around sanitation.
 - “Learning culture,” with everyone trying to make it work. It is not a weakness to need support or discuss issues.

ELABORATION OF DIFFERENT MODELS FOR ESTABLISHING AN ASA IN SOUTH AFRICA

In the South African context, a two-pronged model is recommended that marries an informal and a formal model. It would be developed in liaison with the CPUT and WRC, and its implementation partners would be:

- SALGA.
- WISA.
- UCT (ACC with the GSDPP).

CITY SANITATION MANAGERS FORUM

All interviewees agreed that the CWMF model works in the South African context.

Members were the heads of water and sanitation in Metros and met 3–4 times per year. People in positions of authority could not afford to be away for more than two nights. It would be possible for them to arrive in the evening, share a meal, and then have a day and a half of sessions before returning home.

Themes were selected by members based on challenges they were facing in their municipalities. In preparation, a consultant developed an analysis of main publications and findings around the topic at hand, which was used to open up discussion. Each official shared their service delivery statistics related to the theme of the meeting, which served as a form of benchmarking among themselves. There is already a history of learning around sanitation and new technologies being shared at the CWMF.

Participants who were interviewed explained that no one wanted to miss, because it was useful to engage with like-minded people. It was like “belonging to an interesting club”—a stimulating time where they could network, get up to date with the field, and formulate ideas on how to tackle problems. It meant that managers did not “feel alone” or isolated; instead, they found they had the same problems as other places, and they could consider a new idea in a non-competitive environment with open opportunities to share. Of course, there was some defensiveness, particularly with people trying to protect their reputations.

Currently, with the DBSA, SALGA is reconfiguring the CWMF to play a different role. The plan under discussion is for a trainer from the DBSA to coach managers from eight Metros. The CWMF would provide a sounding board for the eight Metros’ water-related issues. A linkage would also be established to the Director General of DWS, as a means of escalating understanding of the need for interventions to the highest level.

Meanwhile, there is scope to establish a City Sanitation Managers Forum, along the same lines as the original CWMF, but with a couple of important changes:

- A formalized “plus one” practice in which managers are accompanied by officials who are responsible for the theme at hand. These officials would be well placed for also gaining formal training through the CPD courses.
- Further “inter-vision” technique development (in which officials with similar issues/situations) work together.

CPD LINKED TO SALGA’S LEADERSHIP AND GOVERNANCE INSTITUTE

CPUT is developing Quality Council for Trades and Occupations profiles for occupations in the water sector, and this is also needed for the sanitation sector (related to sanitation leaders). Once that is done, training courses can be developed by a qualified training development agency, which go through reference groups, and then the course can be offered by any training organization and paid for by SETA.

The proposed model includes developing sanitation short courses alongside SALGA and linked to its Leadership and Governance Institute. This would allow funding from the LGSETA.

These could be offered by WISA. Once you register as a member of a professional body, you are provided with points that allow you to complete accredited short courses with an increasing level of complexity (these are offered by professional associations such as WISA, SAICE, or IMESA).

Different modules/courses can be specified for different leader profiles (e.g., metro, town, city leader) outside sanitation per se. The “plus one” cohort of the City Sanitation Managers Forum would be required to complete these modules.

ACADEMIC LINKAGES

UCT’s practical ACC, together with its GSDPP, seems a good location for officials to obtain a post-graduate certificate. This could mean offering a tailor-made course at the GSDPP with practical elements through the Center for Cities. This requires further investigation, because sustainable funding would be an issue.

EXTENDING THE SANITATION REACH

Sanitation modules could be adjusted to supplement the focus of other initiatives, such as training offered by Stellenbosch University or the eThekweni Municipal Academy’s Executive Leadership. They could also be incorporated into existing university courses.

ELABORATION OF DIFFERENT MODELS FOR ESTABLISHING AN ASA IN MOZAMBIQUE

The most obvious and referred to model of starting an ASA in Mozambique would be to attach it to the existing professional platform called Aquashare, which draws together key leaders from national government, donors, and NGOs. It is well respected, coordinated by CRA chairperson Manuel Alvarinho, and interviewees were enthusiastic about its theme-based meetings/workshops that are convened at regular intervals.

What is currently lacking in Mozambique is a means to link responsible professionals who engage with sanitation in cities. The proposal is for Aquashare to act as a launching pad and to orient the successor forum as specifically directed to sanitation only. Its scope would be expanded to provincially constituted delegations that would be set up as explicitly oriented toward sanitation, leaving out water supply, and operate as one national overarching platform sited in Maputo.

All interviewees stated strongly that any initiative needed to take place alongside a project that delivers sanitation. This would ensure that the forum was not a “talk shop” and that it assisted officials in delivering services. It would also be expected to assist in sustaining and financing these provincial-level delegations of the Aquashare Sanitation Forum.

One idea that came up repeatedly was linking it to the new World Bank program that is going to run from 2018 onward in six medium-sized cities in Mozambique. These are situated in three different provinces (Xai Xai in Gaza; Mocuba, Tete, and Quelimane in Zambeze; Nampula and Nacala in Nampula). What this forum would facilitate is gathering city managers for a type of knowledge exchange among municipal staff responsible for sanitation. It would operate similar to the CWMF in South Africa, but would be oriented to professionals who work in sanitation.

Specially tailored sanitation courses focused on leadership elements could be developed into professional development courses, hosted by the Aquashare Sanitation Forum, as well. Turning Aquashare into a professional body that not only facilitates practical lessons, but also offers the means to advance in the sector through complementary course work, upgrading one's skills, knowledge, and practical experience. The latter could be hosted by CFPAS, which could possibly also expand its presence in every province.

There is a dire need to coordinate the establishment of such an on-the-job professional advancement trajectory in Mozambique, to fill the gaps that are left open by the formal academic advancement system.

A second possible way to emphasize and strengthen sanitation in existing academic programs would be to add a (city-wide inclusive) sanitation orientation to existing hydraulic engineering degrees that are currently being offered. UEM (Faculty of Engineering, Maputo) and ESUDER provide a useful entry point for doing so at master's, licenciatura (B.Sc. honors), and bachelor's levels respectively. This could then take care of the amplification of formal professional training for sanitation, which is currently weakly developed within the Mozambican academic landscape.

ELABORATION OF DIFFERENT MODELS FOR ESTABLISHING AN ASA IN ZAMBIA AND REGIONALLY

It is proposed that the donor forum that meets regularly in Zambia may assist in creating a platform to discuss setting up a City Sanitation Managers Forum. It is likely that Zambia's commercialized utilities and national government departments (local government and the new water and sanitation) would benefit from such a forum. Given the current institutional flux, creating such a forum would place sanitation in a more prominent position and would also allow space for sanitation responsibilities to be clarified among officials.

Once established, this forum would then be in a position to invite hand-picked officials from other countries in Southern Africa to participate. Over time, useful "matches" could be developed between cities, and joint sessions could be planned.

As in Mozambique, professional training courses linked to the University of Zambia could be developed over time.

COST AND FINANCING

FOCUS OF START-UP FUNDS

As might be expected, this initiative will require start-up funds, so that initial progress can be made in establishing a promising academy and long-term fundraising, perhaps targeting corporations with a mutual interest in the sanitation market, to establish a 10-year revenue stream.

The most informal part of the training—the proposed City Sanitation Managers Forum, the sanitation platform linked to Aquashare in Mozambique, and the City Exchange Forum in Zambia—is arguably the most important and the most difficult for which to raise funds. These would need to be the focus of start-up funds, concurrently with development of the substance of the training. There is a possibility that Metros in South Africa could pay their own expenses, but this would not be the case in other countries.

LINKAGE TO PROJECTS

The lack of sustainable public and private funding for sanitation outside South Africa has invited a very active role of multilateral and bilateral funding organizations in driving the attainment of relevant MDGs and SDGs. Any initiative toward achieving the relevant SDG goal is likely to be funded and sustained for quite a while by outside funding before one can even consider trying to sustain it. However, the linkage in Mozambique between the sanitation platform formed with Aquashare and an actual project, such as the one being developed by World Bank, may assist with fundraising.

SOURCES FOR PROFESSIONAL DEVELOPMENT COURSES

Professional development courses may be easier to fund. In South Africa, the establishment of CPD courses could seek support and funding from LGSETA, particularly if they are linked to SALGA's virtual leadership institute. Linkages of such professional courses to universities such as UEM and University of Zambia would be attractive to donors.

ACADEMIC FEES

In terms of more formal training, private university fees in South Africa typically are in the region of \$5,250 or more per year for a post-graduate degree. Depending on how heavily subsidized a university is, the cost can fall to R30k per year. Of course, university fees and bursaries are currently in flux country-wide as a result of student movement protests. Based on the experience of UCT's Department of Engineering, fees are often covered by employers, the relevant government department, or various scholarships. The WRC and National Research Foundation have programs that offer financial support for post-graduates.

RISKS

It is recommended that, drawing on existing studies, a set of general characteristics that must be met to address sanitation challenges is identified, which are prerequisites for more locally specific actions and programs to be undertaken. It is important to be clear how an ASA will address some of them and have an impact on others—and, most importantly, if not met, are likely to undermine the effectiveness of even an ideal ASA.

Other risks:

- Proposed partners lack interest once planning is underway.
- Key leaders driving the initiative are no longer available.
- Organizations or individuals consider the initiative as a threat and create blockages to its development.
- Officials who participate in training are funded and “sent” by their organization, without interest in real participation or without being in the position to use the training.

RECOMMENDATIONS

SHORT TIMEFRAME FOR START-UP PHASE

Interviewees emphasized that efforts to “get the entire thing right before starting” meant that previous initiatives lost energy and momentum. This initiative seems to be coming at the right time, with a high degree of receptiveness on the part of key stakeholders. It was recommended that, to avoid a years-long process to set up an ASA, it be set up with the approach of “learning by doing.”

DRAWING ON ETHUSIASTIC SENIOR SECTOR LEADERS

In other words, interviewees suggested starting with a small, handpicked interim board of a few committed people. Some of the most senior people interviewed were keen to indicate their availability, and were confident that other senior sector experts would all donate an agreed portion of their time to get it started.

POSITIONING AND “BUY-IN”

The board would oversee the planning and development of the initiative, and its positioning in-country, and provide a “face” as drivers to achieve sectoral “buy-in.” Particularly in the South African context, initiatives need to be owned by local organizations and sector leaders to succeed. An important starting point would be to workshop the proposed models with sector leaders.

START-UP TASKS

The main start-up tasks would entail identifying:

- A program manager/coordinator would be needed to coordinate and outsource (as necessary) tasks of managing academic partners, creating curricula, and raising funds.
- Successful officials who achieved success in delivering sanitation, who are able to share wisdom as “training providers” or feed into training provider (video short clips that capture wisdom and inspire new leaders).
- An initial, small cohort of promising officials to be trained. In South Africa alone, there are 150 utility managers and 100 potential managers, totaling a possible 250 trainees.

SELECTION PROCESS

Once selection becomes more formalized, experience in South Africa shows the selection process must be an online application process, with steps to prove qualifications, and an interview with piercing questions to show high aptitude and understanding of concepts (Lawless, ND). Participants would ideally be well positioned and have leadership qualities, among others.

POSITIONING

- Leadership capacity and interest (look for a leader above all else).

- Broad conceptualization of the issues.
- Positioned institutionally to manage sanitation as a whole, drawing together fragmented elements.
- Able and willing to take a stand with politicians; clout.

QUALITIES/ABILITIES

- Thinks creatively.
- Desire to solve problems.
- A solid understanding of key technical aspects of sanitation.
- Capacity to develop a sociopolitical understanding.
- Capacity to engage critically with global agencies and best practices; ensure local formulation.

LINKAGES WITH OTHER PROCESSES

One interviewee pointed to processes underway in South Africa. By framing this initiative as linked to these processes, it would be most easily (and enthusiastically) taken forward by officials who will be required to engage with them. A board may wish to consider the following, among others:

- There is growing pressure to include health and hygiene in Water Services Development Plans, so engaging with this provides an ideal entry point right now. Empower municipal managers, technical managers, and water and sanitation managers to take water and sanitation and incorporate health and hygiene planning.
- In the next two years, after elections, there will be an increased focus on green drop incentives. This can lead to important discussions to foster leadership and is a strong incentive.
- Linking sanitation efforts to job creation. This was an established program that is no longer in operation, but the need for jobs means that this linkage would increase its attractiveness to local officials.

TERMS AND NAMES

The starting point for the ASA was to promote innovation, exchange ideas, and analysis of issues—not “training” as such. However, since the term and concept of training exists throughout the sector, it has been used throughout this report. It is worth noting this difference when considering the terminology to be used. Several interviewees raised issues with “Academy” as it conjures a structured program and single physical building.

ENABLING ENVIRONMENT FOR TRAINING

Officials are under pressure from politicians who are under pressure from their constituents. According to Catarina de Alb, now head of Sanitation and Water for All (SWA), constituents will be able to use the “right to a clean toilet” as leverage. So, alongside training, the ASA could assist in promoting the sanitation “cause” and the profile of sanitation in Africa and, in turn, that would help stimulate demand for training from high-level officials.

BIBLIOGRAPHY

- Aidenvironment, Panteia, and Water is Essential. (2015). *Mozambique market research and positioning survey for the Dutch water sector*.
- African Ministers' Council on Water (AMCOW). (2006). *Getting Africa on track to meet the MDGs on water and sanitation: A status overview of 16 African countries*. Washington, DC: World Bank Water and Sanitation Program (WSP).
- AMCOW. (2011a). *Country status overviews—regional synthesis report—Pathways to progress: Transitioning to country-led service delivery pathways to meet Africa's water supply and sanitation targets*. Washington, DC: World Bank WSP.
- AMCOW. (2011b). *Country status overviews—Water supply and sanitation in Angola: Turning finance into services for 2015 and beyond*. Washington, DC: World Bank WSP.
- AMCOW. (2011c). *Country status overviews—Water supply and sanitation in Mozambique: Turning finance into services for 2015 and beyond*. Washington, DC: World Bank WSP.
- AMCOW. (2011d). *Country status overviews—Water supply and sanitation in Zimbabwe: Turning finance into services for 2015 and beyond*. Washington, DC: World Bank WSP.
- AMCOW. (2013). *Reviewing sanitation action plans and eThekweni monitoring meeting report*.
- AMCOW. (2015). *AfricaSan4: Monitoring the eThekweni commitments on sanitation*.
- Coombes, Y., Hickling, S., & Radin, M. (2015). *Investment in sanitation to support economic growth in Africa: Recommendations to AMCOW and ministers of finance.* Washington, DC: World Bank WSP.
- Edwards, B., Nagpal, T., Rose, R., Mohammed, A. N., Uandela, A., Wolfsbauer, M., & Norman, G. (2015). *Municipal finance for sanitation in three African cities*. London, United Kingdom: Water and Sanitation for the Urban Poor (WSUP)/Urban Institute.
- ERASMUS+. (n.d.). *Learning and Teaching Tools Fueling University relations with the Economy in Mozambique and South Africa (LaTFURE)*. European Commission.
- Gordon, B. (2016). *Lessons learnt from the MDG period in water and sanitation*. WHO.
- Graduate School of Development Policy and Practice (GSDPP), University of Cape Town (UCT). (2016). *GSDPP 2011–2016: Five-year report*. Retrieved from http://www.gsdpp.uct.ac.za/sites/default/files/image_tool/images/78/GSDPP_5_year_report_singles.pdf.
- Grebe, E. (2009). *Leaders, networks, and coalitions in the AIDS response: A comparison of Uganda and South Africa*. (CSSR Working Paper No. 241.) South Africa: Developmental Leadership Program.

- Grebe, E., & Minka, W. (2011). *Institutions of integrity and the integrity of institutions: Integrity and ethics in the politics of developmental leadership*. South Africa: Developmental Leadership Program.
- Hawkins, P., & Muxímpua, O. (2015). *Developing business models for fecal sludge management in Maputo*. Washington DC: International Bank for Reconstruction and Development/World Bank.
- Jackson, B. (2012). *Global sanitation fund start-up: Lessons learned for a global fund*. (Draft document.)
- Lawless, A. (n.d.). *Developing a municipal engineering academy*.
- Lawless, A. (n.d.). *Number and needs in local government: Where are we now?*
- MILE. (2010). *Enhancing local government capacity: For practitioners, by practitioners*. (Rationale for a Municipal Institute of Learning. Draft discussion document.) Retrieved from http://www.mile.org.za/QuickLinks/Documents/MILE_Founding%20Document.pdf.
- MILE. (2016). *MILE prospectus 2016/2017*. Retrieved from <http://www.mile.org.za/Documents/Prospectus%202016-2017%20Booklet.pdf>.
- Mission Report Niche. (n.d.). *Capacity building for integrated water resources management in South Africa*. (NICHE/ZAF/016 AND 062).
- NEPAD. (n.d.). *Water centers of excellence*. Retrieved from <http://www.nepad.org/programme/nepad-water-centers-excellence>.
- Potter, A., Klutse, A., Snehalatha, M., Batchelor, C., Uandela, A., Naafs, A., ... Moriarty, P. (2010). *Assessing the levels of sanitation services* (title translated from Portuguese). *WashCost*. (Working paper no.3.). The Hague, Netherlands: IRC International Water and Sanitation Center.
- Ramôa, A. R. C. (2010). *Contribution to the evolution of water supply and wastewater sanitation in peri-urban areas of Portuguese-speaking African countries. Study group in the city of Maputo, Mozambique* (title translated from Portuguese). *Dissertação para obtenção do Grau de Mestre em Engenharia do Ambiente*. Instituto Superior Técnico, Universidade Técnico de Lisboa.
- Sanitation and Water for All (SWA). (2012). *Country profiles*. Retrieved from <http://www.sanitationandwaterforall.org>.
- Times of Zambia*. (2016).
- UCT. (2013). *Leadership in public transport for spatial transformation*.
- United Nations (UN). (2017). *Data*. Retrieved from <http://www.data.un.org>.
- UNICEF. (2017). *National Vocational Training Center for Water and Sanitation (CFPAS) in Angola*. Retrieved from https://www.youtube.com/watch?v=q5f_HbAUze4&feature=youtu.be.

- UNICEF/Zimbabwe. (2017). Water, sanitation, and hygiene—overview. Retrieved from https://www.unicef.org/zimbabwe/water_san_hygiene.html.
- WASH Watch. (2017). *Country comparisons*. Retrieved from <https://www.washwatch.org/en/countries/compare>.
- Waterwiki.net. (2017). *Mozambique water sector coordination*. Retrieved from http://waterwiki.net/index.php?title=Mozambique/sector_coordination.
- World Health Organization (WHO). (2017). Special report for Africa. *GLAAS 2014 report—Investing in water and sanitation: Increasing access, reducing inequalities*. Geneva, Switzerland: WHO Press.
- WHO/United Nations International Children’s Emergency Fund (UNICEF). (2012). Joint Monitoring Programme (JMP).
- WHO/UNICEF. (2015). JMP.
- World Bank. (2017). *World development indicators: Distribution of income or consumption*. (GINI Index—World Bank Estimate.)
- WRC. (2012). WRC sanitation and wastewater treatment reports. Retrieved from https://sanitationupdates.files.wordpress.com/2012/03/wrc-sanitation_reports2012.pdf.
- WSUP. (2016). *Increasing municipal finance for sanitation: Towards a sanitation tariff in Maputo*. (Practice Notice 24.)

ANNEX A: LIST OF PEOPLE INTERVIEWED

TABLE 1: PEOPLE INTERVIEWED

ANGOLA		
[REDACTED]	Independent Consultant	[REDACTED]
ZIMBABWE		
[REDACTED]	Deputy Country Director at Welthungerhilfe	[REDACTED]
MALAWI		
[REDACTED]	Deputy Director: Water Supply at the Ministry of Agriculture, Irrigation and Water Development (MOAIDW)	[REDACTED]
NAMIBIA		
[REDACTED]	Water and Sanitation Specialist: UNICEF, Namibia	[REDACTED]
BOTSWANA		
[REDACTED]	JG Afrika (consultant)	[REDACTED]
MOZAMBIQUE		
[REDACTED]	President: CRA	[REDACTED]
[REDACTED]	WASH Specialist: UNICEF, Mozambique	[REDACTED]
[REDACTED]	Post-Doctoral Researcher: WSUP and TU Delft	
[REDACTED]	Project Co-ordinator: WSUP, Mozambique	[REDACTED]
[REDACTED]	Project Coordinator: CONCERN, Maputo, Mozambique	[REDACTED]
[REDACTED]	Implementer in Sanitation Provision: ProWater	[REDACTED]
[REDACTED]	Director Operations and Technical Assistance: AIAS	[REDACTED]
[REDACTED]	AIAS	[REDACTED]
[REDACTED]	Director Sanitation: DNAAS	
[REDACTED]	Sociologist: DNAAS	
[REDACTED]	Director: DNAAS – WASH	[REDACTED]
[REDACTED]	Independent Consultant in Sanitation Mobiles	[REDACTED]
[REDACTED]	WSP Country Team Leader: Mozambique/World Bank WSP	[REDACTED]
[REDACTED]	Professor and Dean: Faculty of Education. UEM, Maputo	[REDACTED]

[REDACTED]	Consultant: World Bank, ex Minister of Public Works	[REDACTED]
SOUTH AFRICA (JOHANNESBURG/PRETORIA)		
[REDACTED]	Executive Manager: Water Use and Waste Management	[REDACTED]
[REDACTED]	Head/Special Projects Unit: Department of Higher Education and Training	[REDACTED]
[REDACTED]	Coordinator: African Cities Center	[REDACTED]
[REDACTED]	Independent Consultant	[REDACTED]
[REDACTED]	Regional Program Manager: African Union/NEPAD Water Centers of Excellence	[REDACTED]
[REDACTED]	Former DWS, Municipal Support	
[REDACTED]	Development Finance Adviser: Climate Resilient Infrastructure Development Facility	[REDACTED]
[REDACTED]	Director: Water Services/SALGA	[REDACTED]
[REDACTED]	Director: Schoeman and Associates	[REDACTED]
[REDACTED]	Director: CLEAR-AA, Wits University	[REDACTED]
[REDACTED]	Councillor: MMC – Environment and Infrastructure Services Department	[REDACTED]
[REDACTED]	Former Chair: WISA	[REDACTED]
[REDACTED]	Senior Advisor: Water and Sanitation/UN Habitat Consultant	[REDACTED]
[REDACTED]	Independent Utilities Professional	[REDACTED]
[REDACTED]	Founding Partner: Palmer Development Group	
[REDACTED]	Director: Implementation Support to Sanitation, DWS	[REDACTED]
[REDACTED]	Associate Director: KPMG Management Consulting, former DWS	[REDACTED]
[REDACTED]	Chief Engineer: Water Services and Local Water Management, DWS	[REDACTED]
[REDACTED]	Project Manager, Africa Investment and Integration Desk (AVID): NEPAD Business Foundation 100 Cities of Africa	[REDACTED]
[REDACTED]	Water Sector Manager: EWSETA	[REDACTED]
[REDACTED]	Director: Allyson Lawless (Pty) Ltd	[REDACTED]
[REDACTED]	Independent Consultant, former Irish Aid	[REDACTED]

[REDACTED]	Independent Consultant	[REDACTED]
[REDACTED]	Wits University School of Governance, former Director General of the Department of Water Affairs	[REDACTED]
[REDACTED]	DBSA Pan-African Capacity Building Programme	
SOUTH AFRICA (DURBAN)		
[REDACTED]	Professor: Chemical Engineering Pollution Research Group, UKZN	[REDACTED]
[REDACTED]	Strategic Executive: eThekweni Water and Sanitation	[REDACTED]
[REDACTED]	Head of Human Resources: eThekweni Water and Sanitation	[REDACTED]
[REDACTED]	Independent consultant, former Head of eThekweni Water and Sanitation	[REDACTED]
[REDACTED]	Managing Director: Sembcorp Siza Water	[REDACTED]
[REDACTED]	Independent, former DWS	[REDACTED]
SOUTH AFRICA (CAPE TOWN)		
[REDACTED]	Professor: Civil Engineering, UCT	[REDACTED]
[REDACTED]	UCT, GSDPP, Building Bridges Programme	[REDACTED]
[REDACTED]	Director: UCT, GSDPP	[REDACTED]
[REDACTED]	Professor and Director: CWSR and CWSS, CPUT	[REDACTED]
[REDACTED]	Emeritus Professor: School of Public Health at UWC	[REDACTED]
[REDACTED]	Programme Manager: City Support Programme	[REDACTED]
[REDACTED]	Independent Research Professor	[REDACTED]
[REDACTED]	Stellenbosch University Water Institute	[REDACTED]
ZAMBIA		
[REDACTED]	Senior Water and Sanitation Specialist: World Bank	
[REDACTED]	Water and Sanitation Specialist: Sanitation Academy for Zambia	[REDACTED]
[REDACTED]	Project Manager: WaterAid Zambia	[REDACTED]
[REDACTED]	M and E Technical Advisor: Ministry of Local Government and Housing	[REDACTED]

██████████	Lecturer: University of Zambia, School of Engineering, Department of Civil and Environmental Engineering	██████████
██████████	Chairperson: Chitembo Consultancy	██████████

ANNEX B: SOUTH AFRICAN SANITATION COURSES AND CONTENT SUMMARY

TABLE 2: DEGREE/DIPLOMA COURSES

INSTITUTE	COURSE	QUALIFICATION	LENGTH	CONTENT							
				SANITATION	HEALTH/HYGIENE PROMO	WATER SUPPLY	ENGINEERING	ENVIRONMENTAL SCIENCES	SANITATION	LEADERSHIP	MANAGEMENT
Doctoral Degrees											
Tshwane University of Technology	Water Care - Phasing out	Ph.D.	3 years	★	★			★			
University of Cape Town (UCT)	Interdisciplinary	Ph.D.	3 years		★		★	★			
University of Fort Hare	Biochemistry and Microbiology	Ph.D.	3 years		★	★		★	★		
University of the Western Cape (UWC)	Environmental and Water Science	Ph.D.	3 years		★	★	★	★		★	★
University of Witwatersrand (Wits University)	Civil and Environmental Engineering	Ph.D.	3 years	★	★	★	★	★	★	★	★
University of Venda	Earth Sciences in Hydrology and Water Resources	Ph.D.	3 years	★	★	★		★			
Master's Degrees											
Tshwane University of Technology	Water Care	M.Sc.	2 years	★	★			★			
Durban University of Technology	Environmental and Biosystems Engineering	M.Sc.	2 years		★		★	★			
UCT	Urban Infrastructure Design and Management	M.Phil.	2 years			★		★	★		★
UCT	Interdisciplinary	M.Sc.	2 years	★	★			★			

INSTITUTE	COURSE	QUALIFICATION	LENGTH	CONTENT							
				SANITATION	HEALTH/HYGIENE PROMO	WATER SUPPLY	ENGINEERING	ENVIRONMENTAL SCIENCES	SANITATION	LEADERSHIP	MANAGEMENT
University of Fort Hare	Biochemistry and Microbiology	M.Bioch./M.Sc.	2 years		★	★		★	★		
University of Pretoria	Water Resources Engineering	M.Eng.	2 years	★			★	★		★	★
University of Pretoria	Water Utilization Engineering	M.Eng.	2 years	★	★	★	★	★		★	★
University of Pretoria	Applied Science and Water Resources	M.Sc.	2 years	★	★	★		★		★	★
University of Pretoria	Water Resource Management	M.Sc.	2 years	★	★	★		★	★	★	★
UWC	Environmental and Water Science	M.Sc.	2 years		★	★	★	★		★	★
Wits University	Civil and Environmental Engineering	M.Sc.	2 years	★	★	★	★	★	★	★	★
University of Venda	Earth Sciences in Hydrology and Water Resources	M.Sc.	2 years	★	★	★		★			
Honors Degrees											
University of Fort Hare	Biochemistry and Microbiology	Hons.	1 year		★	★		★	★		
University of Pretoria	Build Environment and Information Technology	B.Eng. Hons.	1 year	★	★	★		★		★	★
UWC	Environmental and Water Science	B.Sc. Hons.	1 year		★	★	★	★		★	★
University of Venda	Earth Sciences in Hydrology and Water Resources	B.EHHWR Hons.	1 year	★	★	★		★			

INSTITUTE	COURSE	QUALIFICATION	LENGTH	CONTENT							
				SANITATION	HEALTH/HYGIENE PROMO	WATER SUPPLY	ENGINEERING	ENVIRONMENTAL SCIENCES	SANITATION	LEADERSHIP	MANAGEMENT
Bachelor's Degrees											
Tshwane University of Technology	Water Care	B.Tech.	3 years	★				★			
University of Limpopo	Community Water Services and Sanitation	B.Sc.	3 years	★		★		★		★	
UWC	Environmental and Water Science	B.Sc.	3 years		★	★	★	★		★	★
Wits University	Civil and Environmental Engineering	B.Sc.		★	★	★	★	★	★	★	★
University of Venda	Earth Sciences in Hydrology and Water Resources	B.Sc. HWR	4 years	★	★	★		★			
Certificate Courses											
Cape Peninsula University of Technology (CPUT)	Community Water Supply and Sanitation	Diploma		★	★	★					
Tshwane University of Technology	Water Care	Diploma				★	★	★			★
Wits University	Civil and Environmental Engineering	(Grad) Diploma		★	★	★	★	★	★	★	★
University of Venda	Freshwater Technology	Diploma						★	★		

★ Indicates that more than one module is dedicated to leadership.

ANNEX C: TRAINING ORGANIZATIONS

TABLE 3: TRAINING ORGANIZATIONS

INSTITUTE	DESCRIPTION
<p>Institute of Waste Management of Southern Africa (IWMSA)</p>	<p>The IWMSA is a multi-disciplinary non-profit association that is committed to supporting professional waste management practices. IWMSA strives toward the protection of the environment and people of Southern Africa from the adverse effects of poor waste management by supporting sustainable best practical environmental options. The association contributes to the improvement of waste management standards and legislation, supports international, national and regional trends in best environmental practices; promote the science and technology of waste management and practice cost-effective management of waste. Education and training in the realm of effective and efficient waste management is also a key focus for them. Offers accredited training for: Accredited Training Level 1 and 2; Waste Management Training Programme – Introduction; Waste Legislation Course; Accredited Training; Hazardous Waste Management Training; and Integrated Waste Management Training Programme.</p>
<p>South Africa Water and Sanitation Academy (SAWASA)</p>	<p>SAWASA runs training and development programs aimed at dramatically impacting municipalities and schools and communities through better hygiene practices, world-class human waste management and general personal hygiene practices. This is coupled with encouraging government to agree on guidelines for public toilet design to international standards. Training is offered to: Cleaning personnel, sanitation workers, domestic workers, supervisors of public facilities, community members and representatives, and professionals in the fields of plumbing, sanitation, waste management and water purification. SAWASA also travels to communities and schools conducting mobile training programs. SAWASA aims to promote sanitation and hygiene in schools to achieve lasting behavioral change. It also seeks to use school toilet cleanliness as an entry point to promote the right of the child to a healthy and safe learning environment to become the future healthy adults. These include:</p> <ul style="list-style-type: none"> • Hygiene education using a life-skills approach. • The child as an agent of change (Teacher-Child-Family-Community). • Child-friendly (especially girl-child) water and sanitation facilities. • Students can be targeted both as beneficiaries and as agents of behavioral change within their families and their communities. • Regular health checks and de-worming. • School as the knowledge center with the teacher as facilitator/motivator. • Institution building of school water, sanitation, and hygiene health committee. • Promotion of school environmental cleanliness. • Equitable involvement of the school governance bodies. • Capacity development of a wide range of concerned actors. • Strengthening school-based monitoring systems.
<p>Pan-African Training (PAT)</p>	<p>PAT is an accredited institute. Its courses are in compliance with Education and Training Quality Assurance of South Africa. PAT offers training to different organizations like Government Parastatals, Public Services Organizations, NGOs, CBOs, Private Sectors, International Organizations and the Diplomatic Missions.</p> <p>Programs they offer are as follows: Human resource management programs; management and administration programs; information technology programs; tourism management programs; financial management programs; project management programs; health management programs; rural and agricultural programs; gender management programme; logistics and procurement programs; marketing management programs; information management programs; tourism management programs; computerized applications for development management; transport management programs; democracy and governance programs; and information communication technology programs.</p>

INSTITUTE	DESCRIPTION
South African Institute of Learning (SAIL)	SAIL is accredited with the LGSETA and also registered on the National Treasury's database as one of its preferred training providers. SAIL has the following among its portfolio of experience: Municipal Governance NQF Level 5, Municipal Finance Management NQF Level 6, Public Finance Management NQF Level 5.
Institute for Local Government Management of SA (iLGM)	iLGM aims to be the center of excellence of local government management in South Africa and Africa. To promote excellence in local government management through the development and capacitation of managers in the sector and through lobbying of stakeholders and advocacy.
Institute of Municipal Personnel Practitioners (IMPSA)	The mission of IMPSA is to promote the interests of human resources practitioners and the development of professional knowledge and skills.
Center for Municipal Research and Advice (CMRA)	CMRA is a technical service provider in the field of local government. The goal of CMRA is to support and strengthen municipalities and local government associations in Southern Africa. Partners SALGA and VNG international.
Institute for Water Studies (IWS), University of the Western Cape (UWC)	IWS is set to promote research, postgraduate training, and outreach on water-related issues through the collaborative efforts of UWC staff. IWS aims to increase the understanding of surface water, groundwater, and ecosystems linkages and how water users are affected and affect these linkages. IWS has a multi-disciplinary approach to its research since water issues cut across disciplines.

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