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**Inventory of Sanitation Frameworks, Policies &
Programmes in the Southern African
Development Community (SADC)**

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Acronyms

AfDB	African Development Bank
AFTUW	Africa Technical Family: Urban/Water
AWA	African Water Association
AHEAD	Association for Applied Health Education and Development
AMCOW	African Ministers' Council on Water
AU	African Union
AWF	African Water Facility
BNDES	Brazilian Development Bank
CSO	Country Status Overviews
DANIDA	Danish International Development Agency
DNA	National Water Directorate (Angola)
DNA	National Directorate for Water Affairs (Mozambique)
DRC	Democratic Republic of Congo
DRWS	Department of Rural Water Supply (Lesotho)
DWAF	Department of Water and Forestry (South Africa)
EMPS	Environment Management Plan (Seychelles)
EU-WF	European Union Water Facility
FIPAG	<i>Fundo de Investimento e Patrimóniode Abastecimento de Água</i> (Mozambique)
GTZ	<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i>
IRWSSP	Integrated Rural Water Supply and Sanitation Programme
IWRM	Integrated Water Resource Management
JBIC	Japan Bank for International Cooperation
JMP	Joint Monitoring Program
KfW	<i>Kreditanstalt für Wiederaufbau</i>
MAWF	Ministry of Water and Forestry (Namibia)
MCC	Millennium Challenge Corporation
MDG	Millennium Development Goals

MHP	Ministry of Health and Population (Malawi)
MINEA	Ministry of Energy and Water (Angola)
MIWD	Ministry of Irrigation and Water Development (Malawi)
MOHSS	Ministry of Health and Social Services (Namibia)
NAWAPO	National Water Policy (Tanzania)
NEPAD	New Partnerships for African Development
NETWAS	Network for Water and Sanitation (Tanzania)
NGO	Non-governmental Organisation
NMP	National Master Plan for Rural Water Supply and Sanitation
NORAD	Norwegian Agency for Development Co-operation (NORAD)
NRWSSP	National Rural Water Supply and Sanitation Program
NWASCO	National Water Supply and Sanitation Council
NWDP	National Water Development Program (Mozambique)
NWMP	National Water Master Plan (Botswana)
NWSDS	National Water Sector Development Strategy (Tanzania)
PUC	Public Utilities Corporation (Mauritius)
PWSU	Provincial Water and Sanitation Utility (Angola)
REGIDESO	State Water Utility Company in DRC
RWSS	Rural Water Supply and Sanitation
RWSS	National Rural Water Supply and Sanitation (Tanzania)
RWSSI	Rural Water Supply and Sanitation Initiative
SADC	Southern African Development Community
SALGA	South Africa Local Government Association
SSPA	Strategy Paper and Plan of Action
SWaP	Sector-wide Approaches
TWESA	Tanzania Water and Environmental Sanitation
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNICEF	United Nations Children's Fund

USAID	United States Agency for International Development
USIT	Urban Sanitation Improvement Team (Lesotho)
VIP	Ventilation Improved
WASA	Water and Sewerage Authority (Lesotho)
WASH	National Water Supply, Sanitation and Hygiene
WASHE	Water, Sanitation and Health Education (Zambia)
WASP	Water Supply and Sanitation Policy (Namibia)
WATSAN	Water and Sanitation
WB	World Bank
WHO	World Health Organization
WMA	Wastewater Management Authority (Mauritius)
WRMP	Water Resources Management Policy (Lesotho)
WSDP	National Water Sector Development Programme (Tanzania)
WSDS	Water Sector Development Strategy (Angola)
WSP	Water and Sanitation Program
WSS	Water Supply and Sanitation
ZamSIF	Social Investment Fund for Zambia
ZIMWASH	Zimbabwe's Water, Sanitation and Hygiene

Introduction

This paper is a review of the governance frameworks for sanitation within the Southern African Development Community (SADC) and is a part of the ACCESSanitation Project (<http://www.accessanitation.org/>). These frameworks include the Millennium Development Goals, African Vision 2025 and several African Ministerial Declarations and the regional opportunities and restraints are discussed. Then each of the fifteen SADC member states is assessed in more detail. The discussion is based on the country's general background and how the sanitation situation came to be, Key challenges and opportunities, national legislation and policies and major projects, both by government and by non-state actors.

Section 1 - Governance frameworks for sanitation

This paper aims to provide an overview of the governance frameworks within Sub Saharan Africa pertaining to water and sanitation. It is widely acknowledged that the challenges within the water and sanitation sector are largely due to poor governance. Governance is defined, in its broadest terms, as identification of key role players and assignation of authority, responsibility and accountability with respect to water and sanitation. Governance frameworks identify the institutional and regulatory frameworks that have been put into place at international, regional, national and sub national level to provide a consensus upon the direction and performance within water and sanitation. A key goal of these frameworks, within the water and sanitation sector, is to improve accountability and coordination.

1.1. Summary of relevant governance frameworks within the Southern African Development Community

An overview of the governance frameworks relevant within Sub Saharan Africa has been structured to identify those frameworks at an international level, regional (Africa) level and sub regional (SADC) level. In addition, key Ministerial declarations are outlined that are of key relevance within the water and sanitation sector.

Millennium Development Goals (MDG)

In September 2000, the Millennium Declaration was ratified by 189 heads of state at the United Nations Millennium Summit in New York. The Declaration outlines eight broad goals and these are the most internationally adhered-to targets to date. The MDG 7c calls for governments to 'halve by 2015 the proportion of people without access to sustainable safe drinking water and sanitation'. It is widely recognised that the MDG for water and sanitation is one of the most cross cutting themes within the goals and that through achievement of the targets many of the MDG targets will be attained or improved. The majority of countries within Sub-Saharan Africa are tracking their progress towards the attainment of the 2015 targets closely and many make reference to the MDGs within their individual national frameworks and policies. The water and sanitation MDG is particularly relevant within Sub-Saharan Africa, where access to safe sanitation is a basic service that is still lacking for many communities.

Recent figures indicate that 546 million people within Sub-Saharan Africa currently have no access to safe sanitation¹. Only one SADC country reports over 90% of its population having access to improved sanitation facilities - Mauritius. The rest fall far below that level and SADC countries with below 20% coverage are Madagascar and Mozambique². Botswana, Mauritius, Namibia, Angola and South Africa are reported to be the only SADC countries likely to meet their MDG targets but even these countries are lagging on their basic sanitation target³. Although critics of the Millennium Development Goals argue that Africa can only be faced with a 'near-certain failure' due to the overwhelming number of people still un-serviced with adequate water and sanitation, it is felt that progress is not only possible, but critical for the well-being of all Africans⁴⁵.

It is now the final Five-Year Drive (5YD) – coordinated by the United Nations Secretary General's Advisory Board for Water and Sanitation (UNSGAB) towards meeting the 2015 targets. Officially launched at World Water Day 2011, 21 June 2011,⁶ the drive is an advocacy vehicle aims at generating political in addition to technical and financial resources to address the current sanitation challenge. The five year drive targets governments, communities and the private sector, mobilising awareness and contributing to a global commitment to 'sustainable sanitation' will help build the political will to tackle the problem of millions of people who do not have access to safe sanitation⁷ particularly within Sub-Saharan Africa and Asia.

African Water Vision 2025 (2000)

The African Water Vision 2025 originated as part of the World Water Vision for 2025 that was developed by the World Water Council in 1997. It is considered to be the key framework that aims to address the existing water and sanitation backlog within Africa. The African Water Vision 2025 was adopted in 2000, under the shared vision for 'an Africa where there is an equitable and sustainable use and management of water resources for poverty alleviation, socio-economic development, regional cooperation, and the environment'. The vision indicates the need for the following as a minimum;

- Investment of USD 20 billion per annum to meet the basic needs in water supply, sanitation, food, energy and additional economic, social and environmental uses,
- 75% and 70% access to improved water supply and sanitation respectively by 2015, and 95% for both access to improved water supply and sanitation by 2025

In terms of sanitation the following were specifically required⁸: sustainable access to safe and adequate water supply and sanitation to meet the basic needs of all; water for sustaining ecosystems and biodiversity is adequate in quantity and quality; an adequate number of motivated and highly skilled water professionals; and perhaps most importantly political will, public awareness and commitment amongst all for sustainable water resources management, including the mainstreaming of gender issues and youth concerns and the use of participatory approaches.

The vision calls for partnership and cooperation at a regional level, whilst at the national level it requires changes in policies, strategies and legislation. In addition, it calls for changes within institutional arrangements and management practices⁹. Such changes would require the utilisation of participatory approaches and devolving management to the lowest

appropriate level. At an international level, the vision calls for assistance within the sector from Africa's development partners to mobilise seed funding in order to carry out development that would be required to ensure sustainability¹⁰.

The African Ministers Council on Water (AMCOW) has the task of coordinating the regional water agenda and reporting, on an annual basis to the African Union (AU). The Regional Economic Commissions, the River and Lake Basin Organisations, the African Water Association and African Civil Society Network are among the stakeholders that support AMCOW and African countries in the implementation of the Vision¹¹.

Southern African Development Community



The Southern African Development Community (hereafter SADC) was established in 1980 and holds 15 member states namely: Angola, Botswana, the Democratic Republic of the Congo (DRC), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

The shared vision and common agenda of SADC member states is based upon the promotion of sustainable and equitable economic growth and socio-economic development that will ensure poverty alleviation, and ultimately poverty eradication; the promotion of common political values, systems and other shared values that are transmitted through institutions that are democratic, legitimate and effective; and the consolidation and maintenance of democracy.

The SADC Regional Water Supply and Sanitation Programme is based on the following components:

- Financing and funding options for water supply and sanitation services to achieve the Millennium Development Goals (MDG) or national targets;
- Strengthening human capacity of WS institutions to plan, implement and manage services;
- Water and Sanitation development support plan to meet the MDGs;
- Development and implementation of a monitoring and reporting system;
- Knowledge management, advocacy and information sharing¹².

Whilst each SADC member state has its own specific national sanitation frameworks and policies, there are a number of global frameworks to which they adhere to. These are discussed below.

African Union Heads of State Declarations

Further to the African Water Vision there have been a number of high level declarations that have been made by African Union Heads of State, reaffirming their commitment to the vision, and to the importance of water and sanitation for social, economic and environmental development within Africa. Key declarations are described below¹³:

i) 2003 - Pan-African Implementation and Partnership Conference on Water

This conference was initiated following the United Nations Commission on Sustainable Development eleventh session (CSD - 11) with the objective of consolidating input from within the water and sanitation sector prior to the CSD - 12. A number of key Ministerial statements on visions to the CSD – 12 emerged from the conference:

- To significantly improve provision of WSS facilities in un-served settlements.
- To increase information and communication for WSS and hygiene within communities.
- To allocate 5% of budgets to WSS, in addition to acquiring additional funding through donor countries.
- Need to translate international commitments into national policies
- Utilize Integrated Water Resource Management (IWRM)
- Implementing catchment conservation and water demand management
- Initiate devolution of IWRM to catchment-based institutions
- Empower local governments and enhance their capacity
- Invest in monitoring, assessment and information systems
- Promote water, sanitation and shelter as basic needs and fundamental human rights
- Utilise urban indicators efficiently in human settlements management
- Mainstream gender and youth in the provision of water, sanitation, and human settlements¹⁴

In addition to the outcomes outlined above this conference saw the official launch of the African Network of Civil Society Organisations on Water (ANEW), which included a detailed work plan for the future. The guiding vision for ANEW is An Africa where water resources are sustainably managements and water and sanitation for all citizens.

ii) 2008 - Sharm El Sheikh Commitments for Accelerating Achievement of Water and Sanitation Goals¹⁵

The Heads of State and Government of the African Union recognised the importance of water and sanitation for development and acknowledged there is a need to accelerate progress in order to achieve water and sanitation MDGs. This progress needs to be made in regard to challenges such as infrastructure, financing, equitable distribution and capacity building within the water and sanitation sector.

Chief commitments were to increase efforts to implement past declarations related to water and sanitation and to raise the profile of sanitation by addressing the gaps in

the context of the 2008 eThekweni Ministerial Declaration on sanitation in Africa adopted by AMCOW.

Of particular relevance to sanitation:

- Develop and/or update national water management policies, regulatory frameworks, and programmes, and prepare national strategies and action plans for achieving the MDG targets;
- Build institutional and human resources capacity at all levels including the decentralized local government level for programme implementation, enhance information and knowledge management as well as strengthen monitoring and evaluation;
- Put in place adaptation measures to improve resilience to increasing threats from climate change and variability to water resources and capacity to meet water and sanitation targets;
- Significantly increase domestic financial resources allocated for implementing national and regional water and sanitation development activities and called upon Ministers to develop appropriate investment plans;
- Develop local financial instruments and markets for investments in the water and sanitation sectors and mobilize increased donor and other financing for national projects, Rural Water and Sanitation Initiatives and the African Water Facility;
- Promote effective engagement of African civil society and public participation in water and sanitation activities and programmes;
- Promote programming that addresses the role and interests of youth and women as the burden of poor water and sanitation falls disproportionately on women and children;
- Strengthen AMCOW as a key regional mechanism, and other regional stakeholders, as relevant, for promoting cooperation on water and sanitation and request AMCOW to annually report on progress with support from regional partners, and to submit these reports for country consideration;
- Strengthen partnership at all levels in-country and between regional economic communities as well as international development agencies and promote public-private partnerships with the view to fast tracking actions towards meeting MDGs;
- Call upon the G8 to fully implement their commitments on water in Africa, and to step up their engagement in the sanitation sector and to enter into a strengthened partnership with the AU Member States, through AMCOW, for achieving the Water and Sanitation MDGs.

iii) 2001 New Partnerships for African Development - NEPAD

The New Partnership for Africa's Development (NEPAD) is an economic development program of the African Union. NEPAD was adopted at the 37th session of the Assembly of Heads of State and Government in July 2001 in Lusaka, Zambia. NEPAD aims to provide an overarching vision and policy framework for accelerating economic co-operation and integration among African countries. The framework set out that the water and sanitation sector (hereafter WSS) policy objectives ensure sustainable access to safe and adequate clean water supply and sanitation, especially for the poor. The other NEPAD objectives are cross-cutting issues that still have bearing on sanitation outcomes and sustainability. These are to:

- Plan and manage water resources to become a basis for national and regional co-operation and development,
- Systematically address and sustain ecosystems, biodiversity and wildlife,
- Co-operate on shared rivers among member states,
- Effectively address the threat of climate change, and
- Ensure enhanced irrigation and rain-fed agriculture to improve agricultural production and food security.

African Ministerial Declarations

Several Ministerial Declarations have been issued in order to build upon the commitments made by the Heads of State. These are briefly highlighted below¹⁶:

i) 2008 - eThekweni Declaration & AfricaSan+5 Plan¹⁷

The first African Conference on Sanitation and Hygiene was held in 2002 in Johannesburg, South Africa and was instrumental in formulating the sanitation Millennium Development Goal, following the success of the first conference, the second African Conference on Sanitation and Hygiene - AfricaSan+5 was held in Durban, South Africa in February 18-21 2008. AfricaSan+5 marked the climax of a continent-wide process to assess progress, challenges, and lessons towards achieving the sanitation MDG. In concluding the conference, Ministers from 32 countries joined together to endorse the eThekweni Declaration toward the consolidation of an action plan identifying critical actions and challenges that should be further developed, funded, and monitored in order to put Africa 'back on track' to meet the sanitation MDGs.

The ministers agreed to review, update and adopt national sanitation and hygiene policies within 12 months; establish one national plan for accelerating progress to meet national sanitation goals and the MDGs by 2015, and take the necessary steps to ensure national sanitation programs are on track to meet these goals. They also undertook to establish specific public sector budget allocations for sanitation and hygiene programs, and to commit at least 0.5% of GDP to the sector. Ministers also agreed to support the leadership of AMCOW to track the implementation of the eThekweni Declaration¹⁸.

- Ministers pledged to commit themselves to the following eThekweni Declaration Commitments:

- To increase the profile of sanitation and hygiene in poverty reduction strategy papers and related processes;
- To ensure specific public sector budget for sanitation and hygiene, minimum 0.5% of GDP;
- To use sustainable approaches, such as household and community lead initiatives, targeting behaviour change, educational programmes, and caring for the environment;
- To include women, poor, youth and the un-served within this framework;
- To develop and implement sanitation information , monitoring systems and tools to track progress and to build strength and capacity;
- To develop and implement sanitation information, monitoring systems and tools to track progress at local and national levels and to work with global and regional bodies to produce a regular regional report on Africa’s sanitation status;
- To give special attention to countries or areas emerging from conflict or natural disasters.

The eThekweni Declaration and Action Plan were later endorsed by the African Union at its Heads of State and Government Summit (July 2008) in Egypt when the AU Summit adopted the Sharm El-Sheikh Commitments.

ii) 2008 - The Declaration on Climate Change in Africa and Development

In Addis Ababa, at the 11th Ministerial Meeting of the African and EU Troikas, and as part of the declaration on Climate Change, it was noted that the immediate priority for Africa is development. This needed to be supported by economic growth, poverty alleviation, and measures to achieve MDGs such as access to improved sanitation. Due to increasingly visible degradation of the ecosystems and natural resources, these priorities should take a sustainable development approach that reconcile economic, social, human and environmental aspects to ensure that Africa is as resilient to impending changes in climate as possible¹⁹.

iii) 2009 - African Union Specialised Technical Committee on Water and Sanitation²⁰ carrying forward Sharm El Sheikh Commitments²¹ outlined above (ii)

Colloquially known as the Johannesburg Ministerial Statement, emerged from the African Ministers of Water, and Heads of State delegation that assembled in Johannesburg, South Africa in November 9-13 2009 for the African Union’s Specialised Technical Committee on Water and Sanitation during Second African Water Week and the 2nd Pan African Implementation and Partnership Conference. Ministers reaffirmed their commitment to accelerate the translation into action, at national, sub-regional and regional levels the Africa Water Vision 2025²². In addition Ministers and Heads of State confirmed their commitment to

carrying forward the statements and commitments that emerged as a result of the Sharm el Sheikh Declaration, and the eThekwini Declaration on Sanitation²³.

- To accelerate progress in regard to implementing the eThekwini Declaration and AfricaSan +5 Action Plan, specifically in regard to developing national sanitation and hygiene policies;
- To promote, scale up and support Country Sector Reviews, National MDG Investment Plans and National Finance Strategies;
- To launch and adopt the pan-African Monitoring and Evaluation framework to monitor water and sanitation within Africa.

iv) 2011 – AfricaSan 3 Ministerial Statement²⁴

The third African Sanitation and Hygiene Conference was held in Kigali, Rwanda from 19-21 July 2011. The conference built upon the momentum that was generated through the preceding African Sanitation and Hygiene. At the close of the conference Ministers present committed themselves to the following statement:

- Reaffirmed their support and commitment to achieve the eThekwini Declaration Commitments and accelerate progress to meet the urgent water and sanitation needs in the region
- To support actions ‘in our own backyard’, focusing on the resources available locally²⁵
- Support and disseminate best practice and experiences
- Advocate with Ministry of Finance, Political representatives and Heads of State for increased focus on the sanitation sector
- Acknowledge that some of the targets do not have measureable indicators, which would be necessary to record the progress in regard to sanitation, as such Ministers call on AMCOW to:
 - Review and propose indicators for targets that are not yet quantifiable
 - Consult widely on new indicators
 - Report back at next AfricaSan regarding proposed new indicators
 - Annually report on progress of commitment implementation

In addition to the Ministerial Declaration there was strong recognition of the need for Utilities and Local Governments to engage in active dialogue and to provide concrete commitments

in regard to sanitation and to improve management of services. Utilities and Local government committed to develop dialogue within the following thematic areas:

- Innovative and affordable sanitation technologies
- Capacity development and networks
- Robust sanitation focused policies
- Financing
- Regulation, norms and standards
- Including identification of clear progress indicators for Local Governments to be proposed during the next AfricaSan meeting.

The final major outcome of the AfricaSan 3 congress pertains to the Country Action Plans, outlined within the AfricaSan +5 Action Plan. 35 countries are developing action plans that will define specific and measurable actions, tailor made to each country and endorsed by national authorities to improve sanitation and hygiene. The action plans are aligned with and build upon the Millennium Development Goals and seek to address the following²⁶:

- Identification of policy gaps
- Accelerated implementation of policies and strategies within the sector
- Embedding capacity building within governance frameworks
- Financial Resources: Improving management, planning, targeting and tracking.
- Advocate for increased budget allocation to sanitation at national and local levels
- Commitment to six monthly reviews of agreed actions over the next 2 years

Conclusions

The high level commitments and declarations undertaken by Africa's political leaders, reinforce their objectives to align with/and compliment both global (Millennium Development Goals) and regional targets (African Water Vision 2025). While not all the commitments outlined above have been translated into action on the ground yet, with clear indicators and reporting mandates it does demonstrate that there is political will on the continent in regard to water and sanitation, and that as a region Africa needs to establish a way to translate its commitments into tangible results. It is imperative that these declarations, policies and plans do not remain as such but rather lead towards implementation on the ground and thus bring about the needed change.

1.2. Summary of opportunities and limitations presented by relevant governance frameworks in SADC

The commitments to the various international and regional policies referred to provide many opportunities and solutions to address the water and sanitation backlog on the continent, in addition to providing a good baseline for national water and sanitation strategies. The improvement of sanitation services is inextricably linked to the improvement of water provision. Thus the same opportunities apply and there are lessons to be learned from countries that have made progress towards increasing sanitation coverage.

The Opportunities

To observe examples of good practice and governance within the water and sanitation sector and learn from them. As populations become increasingly urbanised cities can proactively plan for new areas of growth where sanitation systems can be implemented before habitation.

Governance frameworks highlight the need for integration of economic, social, cultural and environmental sustainability within the sector. This cross-disciplinary approach opens the door for new technologies such as ecosan (ecological sanitation) and promotes cross-sector dialogue. Such a multi-stakeholder forum provides an important collective opportunity for government-led sector review and planning.

Improvements in sanitation largely remain an urban phenomenon thus policy focussing on expansion of urban projects within rural and peri-urban areas will accelerate progress in achieving coverage.

Recognize the business potential in sanitation technologies and service is important. The business opportunities afforded by investing in sanitation are now being recognized and Africa could benefit by market-based approaches such as the strategy employed for the successful uptake of the mobile phone in even the most rural areas due to small businesses in these areas being able to supply service that national telecom companies cannot. The products of properly composted human faeces can also be a commercial commodity rather than a waste product, as has been demonstrated by the Chinese for centuries²⁷. At every stage of sanitation provision there is a business opportunity for the private sector that would alleviate pressure on government resources. From the raw materials needed to build latrines to the emptying of the latrines, from the reuse of the waste to the need for maintenance staff at communal facilities, opportunities abound.

Adopting system financing is especially relevant if national plans include clear funding estimates for attaining their targets. All financing ultimately comes from public sectors budgets (including foreign aid) or users. In low-income countries with limited coverage and high levels of poverty, a benchmark indicator is public spending on water and sanitation of about 1% of GDP, with cost-recovery and community contributions providing an equivalent amount²⁸.

Build partnerships between the government and civil society for educational campaigns: There is an opportunity to increase capacity building through stronger partnerships between the government and civil institutions. Major successes have been recorded for Bangladesh

and Burkina Faso where the collaboration between various ministries and civil organisations to roll-out hygiene and sanitation awareness have seen dramatic declines in fatalities caused by poor hygiene²⁹.

Limitations or constraints

To implement all the actions discussed, Africa must address some inherent obstacles. These are the same as those faced in the provision of safe drinking water: exploding peri-urban and slum areas, economic growth and higher demand, geographical isolation from municipal centres for rural villages, dearth of public utilities and regulation, and the high costs of water provision. In addition, talking about toilets is often taboo, making it difficult for people, especially women who lack a voice in Africa, to demand better services. Inequalities are much wider for access to sanitation than for water services and may be attributed to higher coverage rates for water services and higher infrastructural costs related to waste management³⁰. There are also framework specific constraints as discussed below:

- **Assessment of the existing situation:** Few policies provide more than a very general assessment of the existing in-country situation. Some reflect current thinking and priorities of international agencies and while most policies include general references to the need to protect the environment, few indicate the magnitude of sanitation-related environmental problems³¹.
- **Stakeholder involvement:** In order to adequately address the backlog that currently exists within the water and sanitation sector it requires coordination not only at a regional level through AMCOW and the African Union, but involvement at all levels including: Country and Sub-Regional Economic commissions (such as Common Market for Eastern and Southern Africa (COMESA), Economic Community of West African States (ECOWAS), North African States (MAGREB), and SADC, river and lake basin organisations (the RLBOs) and by Africa wide organisations such as the AU, Economic Commission for Africa (ECA) and African Development Bank (AfDB)³².
- **Capacity:** Even when there is political will and leadership, and even adequate funding, achievement of water security and safe sanitation goals can only happen if there is adequate institutional capacity at national, sub-national and regional level. At the national level, clear definition of institutional roles and responsibilities and consensus on which organization takes the lead in water and sanitation programmes is needed to ensure harmonization of efforts and efficient use of resources, and identification of priority areas. Similarly, governance at local level is critical in translating national policies into action, while at trans-boundary level, governance is the most important factor in equitable benefit sharing. A critical component of this is devolving responsibility to a local level where capacity is often weakest³³.

Africa must not only promote capacity development at all levels of governments in order to improve service delivery but in addition, young professionals and artisans must be encouraged to enter the water and sanitation sector, education and awareness within local communities in regard to water, sanitation and hygiene must be promoted. The use of new tools, management practices, institution frameworks and partnerships to further

strengthen the sector must also be encouraged, in addition to improving and promoting knowledge sharing networks and stakeholder engagement.

- **Funding and aid harmonisation and sustainability:** Sanitation investments lag behind funding for water supply by almost a decade. Poor economic performance and associated financial and technological limitations continue to be at the root of the slow progress. Sanitation services generally suffer from chronic under-funding. Public spending on water and sanitation is typically less than 0.5% of GDP. The infrastructure for any effective nationwide water and sanitation system requires investment on a scale beyond what the poorest countries can begin to afford, and often requires large upfront investments as well as longer-term maintenance costs. Given the high proportion of people in developing countries that lack access to water and sanitation and survive on less than USD1 a day, it is not feasible to meet these upfront costs through user fees³⁴. However countries need to develop sustainable funding frameworks that do not rely solely on external donors and development partners. Governments need to commit greater proportions of their budget to the sector in order to ensure that funding is available to address the backlog in addition to infrastructure expansion.
- **Monitoring, evaluation, data collection and indicators:** While overall funding is increasing (with potential for leveraging additional public and private funding, both locally and internationally) monitoring and evaluation remains weak. This includes monitoring of improved access to water and sanitation, particularly to vulnerable groups and monitoring of water resources and quality through hydrological data collection and integration of climate change risk assessment³⁵.
- **Ecological sanitation:** Africa is a water scarce continent and as such, policies, strategies and plans need to take this into account. The challenge of advocating ecosan is often associated with how easily the system can be incorporated into existing governmental policy and how this policy is translated into actual implementation. A lack of transparent criteria-based decision-making process may hinder the acceptability of ecological sanitation. If ecosan is chosen but is not incorporated into national policy then it is likely to lead to ineffective dissemination and translation of goals into actual implementation actions. Provision for new systems such as Ecosan must be made in governance frameworks to ensure they remain as viable options within a suite of solutions³⁶.
- **In-country ability to generate and receive information:** Africa needs to improve and enhance its ability to access and disseminate knowledge and best practice. At present this also contributes to gender inequality.

Section 2 – Profiles for individual SADC countries

2.1. Angola

Background

A protracted Civil War left Angola a legacy of disrepair and with the highest levels of water-borne and excreta-related diseases in the world³⁷. This is due to contaminated water, inadequate storm-water drainage, and lack of the most basic sanitation facilities. Angola's water supply and sanitation sector (WSS) has until recently remained the least developed in Africa³⁸ but post-war Angola is rebuilding.



Angola is striving to achieve its MDGs by the 2015 deadline. In the most recent assessment the total use of improved sanitation facilities was reported to be 57%; however there was much disparity between urban (86%) and rural (18%)³⁹ areas and it is unlikely that these figures include the sprawling peri-urban areas around the cities. These peri-urban areas developed haphazardly and informally when war and economic refugees fled to the cities and services such as sanitation were never planned for⁴⁰. Angola is unlikely to meet MDG targets for rural and peri-urban areas by 2015⁴¹. Nevertheless, the government has committed to implementing an aggressive capital investment program to expand and rehabilitate WSS infrastructure as well as implement much needed institutional reforms. It is also necessary to accelerate action on the ground to ensure that those unserved within the population gain access to basic sanitation (and hygiene and sanitary education).

Key challenges

- The backlog in water and sanitation services must be addressed;
- The growing need for sanitation services must be addressed particularly in the peri-urban areas;
- Lack of financial, managerial, and technical capacity in the sector.
- Focus of improvement is primarily urban, while the rural areas are under-represented¹.
- Difficulty accessing rural areas due to dilapidated roads and the slow process of clearing landmines leftover from the war further constrain WSS improvements⁴².

Sanitation policies and legislation

2002 - **General Water Law** – This was the start of the post-war rebuilding of the water and sanitation sector.

2003 - **Water Sector Development Strategy** (WSDS 2003 -2016) - Both the law and this strategy called for the decentralization of WSS service delivery to independent provincial water and sanitation utilities, especially in peri-urban and rural areas. The WSDS has a very strong focus on the urban sector though. The first phase was to take emergency action to address existing backlogs within the WSS, and a second phase (initiated in 2005) focuses on longer term actions within the WSS needed for achieving

MDGs. The WSDS includes national, provincial and local government and civil society. Targets set out within the legislation are to strengthen institutional frameworks and improve capacity (fiscal, human and technical).

Key institutions and their roles in the sanitation and water sector

The Ministry of Energy and Water (MINEA) and Ministry of Finance share responsibility of regulating WSS services, including tariffs. Although principles of cost recovery are imbedded in the Law and WSDS, there is still a reliance on provincial budgets and direct subsidies from central government. MINEA handles planning through the National Water Directorate (DNA). The DNA provides technical assistance to the Provincial Water and Sanitation Utility (PWSU) in operating newly rehabilitated systems. WSS services (outside of the capital Luanda) are provided for by the provincial water directorate. The Ministry of Health also plays a key role and the Ministry of Family and Promotion of Women ensures gender-integrated planning and implementation as there are a substantial number of women-led households (a result of the civil war). This WSS institutional framework is now undergoing significant change and will include the creation of a regulatory agency to develop and enforce PWSU delivery standards and establishment of public enterprises for WSS service provision.

Empresa Publica de Aguas E.P. (EPAL) is responsible for all water supply functions within Luanda and

Empresa de Linpeza e Saneamento de Luanda (ELISAI) is the state utility responsible for sewerage and solid waste management in Luanda.

Major sanitation projects and programmes

To formalise the coordination of both Angolan and foreign donor-headed projects the Angolan Ministry of Planning and Development will implement an aid coordination instrument that includes a technical unit within the DNA.

- **World Bank:** Water Sector Institutional Development Project for Angola (2008-2019) - To strengthen institutional capacity and efficiency of stakeholders/ agencies within the WWS to improve access and reliability of water service supply, water resource management and sanitation, at both central and regional levels⁴³.
- **African Development Bank:** Sumbe Water Supply, Sanitation and Institutional Support Project (2008-2011) comprises of the rehabilitation and expansion of water supply and sanitation systems (on-site sanitation in schools, health centres, markets and public places and solid waste management) in Sumbe and the development of a Comprehensive National Rural Water and Sanitation Program in partnership with the DNA and PWSUs.
- **China:** Government investment in water supply infrastructure and road building (access to rural areas) and an aid package of approximately USD240 million from China Credit for water infrastructure projects in four cities (2006 – ongoing).
- **UNICEF:** Angola Water and Sanitation Programme (2009 – ongoing) - To reduce the prevalence of water and sanitation related diseases, such as cholera and diarrhoea. They also run the Water, Environment, Sanitation and Hygiene Programme.

- **UNDP:** (2009 – ongoing) Urban and peri-urban water and sanitation joint programme management to address un-sustainability of centrally-managed WSS facilities in poor neighbourhoods by introducing community ownership and management.⁴⁴
- **European Commission:** (2008 – 2013) Training and capacity building for WSS regional state utilities and support for non-state utilities; some infrastructure development in urban and peri-urban areas.
- **Brazilian Development Bank (BNDES):** (2006 – ongoing) Development of sanitation infrastructure in Benguela Province.

2.2. Botswana

Background

Botswana developed Vision 2016 in order to articulate long-term development aspirations and provide a broad framework for development. The targets outlined in Vision 2016 are more stringent than those of the Millennium Development Goals (MDG) though many are interlinked; Pillar 2 of Vision 2016 is complementary to MDG number 7: sustainable access to safe drinking water and basic sanitation⁴⁵.



According to WHO standards 66% of households had access to adequate sanitation⁴⁶; which still leaves 23% of the population with open defecation as their only sanitation option. According to the more stringent Botswana Government standards (the minimum level of sanitation is the ventilated improved pit latrine rather than the pit latrine) only 39% of inhabitants have access to adequate sanitation – 53% in urban areas, and 18% in rural areas. Botswana is considered to be on track for meeting its MDG (60%); the most recent assessment⁴⁷ however showed a large disparity between urban (74%) and rural (39%) areas (though figures are still higher than many other Sub-Saharan African countries)^{48, 49}.

Key challenges

- Lack of finances in general or financing comes from unsustainable sources such as external donor agencies,
- Lack of transparency, coordination and accountability⁵⁰,
- The need remains to protect aquifers from pollution, developing a better understanding of ground water recharge, making domestic effluent available and accepted for reuse, and applying a comprehensive demand management programme to improve the efficiency of use,
- Lack of capacity especially at local level,
- There is no regulatory institution available to act as a guide of external (oversight role) institutions performance and compliance to existing laws.

Sanitation policies and legislation

1956 - The **Borehole Act** - Governs borehole creation and operations.

1962 - The **Waterworks Act** – This governs the establishment of water authorities in townships and their responsibility for supplying water and water infrastructure.

1968 - The **Water Act** – This defines water use rights and pollution controls and penalties and the Tribal Land Act established the authority of Land Boards over water-access on tribal lands.

1970 - **Water Utilities Corporation Act**

1991 - **Botswana National Water Master Plan** (NWMP) guides all development of water resources in Botswana.

1998 - **Waste Management Act** for waste management.

1999 - **National Water Supply and Sanitation Plan** was created to estimate water demand and availability and the potential for the development of water resources.

2001 - **National Wastewater and Sanitation Policy** creates direct links between developments guided by Agenda 21 principles (to contribute towards protecting public health; to preserve, protect and improve the quality of the environment and to ensure a prudent and rational utilization of natural resources) and those that guide the implementation of activities in Botswana.

2006 – The **National Master Plan for Waste Water and Sanitation**⁵¹ is a reform review of the 1991 NWMP and now integrates additional aspects of natural resource management such as bio-diversity conservation, institutional strengthening (better integration and coordination between government agencies and local communities), replacing traditional sectoral approaches, and includes strong components of stakeholder participation. It provided guidelines for management and the development of water supplies by local communities; environmental impact statements as an integral part of all water development projects; establishing a regular network of communications; an inventory of national assets; establishing integrated wastewater and sanitation management plans for centres, and launching the National On-Site Sanitation Programme. The policy forms part of Vision 2016, which runs concurrently with the Millennium Development Goals⁵². All development within the sector is informed by the government's National Development Programmes that are adopted and implemented every 6 years with the aid of UNICEF. All NDP published after 1997 are guided by Vision 2016. Sanitation is included under the Waste Management and Pollution Control Programme within the Sustainable Environment chapter of the 10th National Development Plan (2010/11 to 2015/16) (NDP10).⁵³

Major sanitation projects and programmes

As Botswana's economic growth has risen to that of a medium income country in recent years, there has been a corresponding decrease in donor and development aid agencies working actively within the country. So while agencies such as UNDP, UNICEF, GTZ and the World Bank, in addition to the Chinese Government, are all contributing to Botswana's development, the expenditure does not currently meet the amount required.

- **Participatory Hygiene and Sanitation Transformation (PHAST) Initiative** - The 18-month, regional pilot programme based on health awareness was implemented in collaboration with the government in close partnership with UNICEF in 1993. The World Bank International Training Network centres played an important role in preparing, coordinating and monitoring the participatory hygiene promotion activities. Core funding was provided by the Swedish International Development Cooperation Agency (Sida), through the WHO, and by Norway, through a participatory development fund grant to the UNDP/World Bank Water and Sanitation Program. In addition, UNICEF helped sponsor a number of participants to the regional workshops and continues to play a very significant role in the project. The Danish International Development Agency (DANIDA) and Sida, assisted with the funding of activities at country level⁵⁴.

- **On-site sanitation** - In Botswana about 70% of on-site sanitation units are owned directly by private households but there are a number of projects and programmes that contribute towards expanding and providing on-site sanitation: the NRSP (Government) and Self Help Housing Agency (SHHA) programmes (Government); institutional facilities (Government); Red Cross (NGO); USAID/UNICEF (NGO); and the IUCN/Permaculture Trust Botswana - CBNRM-Missing Link Project (NGO)⁵⁵.

2.3. Democratic Republic of Congo (DRC)

Background

The DRC is currently ranked as one of the three poorest countries in Africa and was reported to have the lowest rates of access to drinking water (22%) and sanitation (9%) in Sub-Saharan Africa⁵⁶. Now 23% of the population (both rural and urban) have access to improved sanitation but it is unlikely that the country will achieve its MDGs by 2015⁵⁷ as this would require a fivefold increase in sanitation provisions from 2005 levels, a costly prospect⁵⁸. The WSS remains largely unorganized and beyond the capital, Kinshasa, it barely exists. Urban sanitation remains dilapidated, underdeveloped and often waste products are discharged directly into local water supplies, exacerbating the problem further. In some areas only 3% of the population have access to drinking water and this has fuelled epidemics such as cholera and dysentery. Sanitation facilities in rural areas are virtually all constructed and maintained by non-governmental organizations and religious missions. Not one government agency is responsible for rural sanitation, and the lack of governance, coordination, and financing is evident.



Sanitation service delivery in urban areas is led by a number of governmental departments and ministries. At present the WSS is the responsibility of at least 12 ministries and public bodies including: The Ministry of Energy (MINE) under the Department of Water and Hydrology (DEH) - these bodies control urban water supply. The Ministry of Environment Nature Conservation and Forestry (MECNE) is responsible for urban sanitation. The National Sanitation Programme (PNA) is responsible for wastewater, solid waste, vector control, water potability and environmental hygiene in Kinshasa; other areas are currently serviced by private companies⁵⁹.

Key challenges

- Lack of policy and planning on sanitation and hygiene at any scale and no coordination, authority nor accountability in the WSS sector as responsibilities are spread among at least 12 ministries and public bodies.
- Service delivery is roughly divided between urban areas and rural areas with very little coverage, if any, in peri-urban areas. These areas are likely to burgeon as DRC is seeing unprecedented levels of urbanisation.
- There is not just the backlog in provision of new sanitation infrastructure but also low levels of maintenance of existing ailing infrastructure.
- For several decades there has been a lack of public funding for any state services in the DRC (only 40% of what is required is available).
- Long term conflict has meant that all efforts have been devoted to emergency relief and humanitarian responses whilst programming of development interventions was set aside. Effects of poor governance are compounded by a lack of political leadership, neglect of official positions and active abuses of power, such as misappropriation of public funds, which is not confined to the sanitation sector⁶⁰.
- The barriers to technical, managerial, and financial adequacy must be first assessed and improved following the implementation of institutional reforms.

Sanitation policies and legislation

No national policy document on sanitation exists in DRC⁶¹. Political turmoil and conflict have prohibited legal and institutional inadequacies from being effectively addressed. Policy development has been initiated however they are at various stages of development and the following has not yet been gazetted:

Water Code – The National Water and Sanitation Committee, an inter-ministerial agency, is tasked with the development of the national water code. It is also developing key indicators for monitoring and evaluation of current and future projects in order to improve transparency. It is important to note that the Water Code does not envisage the development of one single national water strategy but mandates the elaboration of a broad water resources management strategy. This, in addition to subsector strategies such as a national public water services strategy, will define the sector's decentralised institutional framework. The draft Water Code has been the subject of an extensive consultation process at the inter-ministerial level as well as by civil society and provincial authorities. It has been submitted to Parliament for discussion and adoption⁶².

National Water Policy – Will take into account the objectives of all subsectors; national and provincial water action plans prioritising interventions and implementation modalities; and drainage basin and area-based development plans.

Also: National Water Strategy, Water Standards and Guidelines, the Environment Code and the Health Code.

Key institutions and their roles in the water and sanitation sector

Within the DRC functioning state institutions and efficient water providers are needed to remedy the water and sanitation issues.

Major sanitation projects and programmes

- **World Bank** – The Urban Water Supply Project and the Semi-Urban Drinking Water Supply and Sanitation Project (in collaboration with the African Development Bank)⁶³ is working on the rehabilitation of drinking water systems in urban areas, assessment studies of drinking water systems in urban areas, supporting institutional efficiency of the National Company for Water Supply in Urban Areas (REGIDESO) and the expansion of drinking water systems in urban areas beyond Kinshasa⁶⁴.
- **Water and Sanitation Program** - Supporting the government to map-out coherent WSS sector development, strengthening sector coordination, knowledge dissemination, and networking, planning and implementation of local WSS initiatives and reforming urban water supply services with pro-poor focus.
- **African Development Bank** – The largest contributor to expanding drinking water service in urban areas.

- **European Union** - Institution building including improving billing and collections, improvements to drinking water distribution system efficiency through leak detection and repair and construction of new boreholes.
- **Belgian Development Cooperation** - Construction of small drinking water systems in semi-urban areas, financing of private community-managed drinking water systems in cooperation with REGIDESO, with **DfID** support.
- **KfW/GTZ** - Rehabilitation of drinking water systems in peri-urban areas, consumer education, institution building and reforms at REGIDESO and water code development with CNAEA.
- **UNICEF** - Creation of community-managed drinking water systems in semi-urban areas, the development of the *village assaini* or sanitized village concept in rural areas, with DfID support.

2.4. Lesotho

Background

Lesotho, a mountainous kingdom, has a predominately (75%) rural population⁶⁵. This will make it challenging for Lesotho to reach its MDG and Vision 2020 sanitation goals. At present only 31% of rural people have access to improved sanitation, yet these people make up the bulk of the population. In urban areas the outlook is much better (71%)⁶⁶ and is proof of the success of Lesotho's urban sanitation sector. Institutional reforms began as early as 1980 when the government, with strong partnership with donor agencies (UNDP, World Bank WSP and UNICEF) and service providers, launched the Urban Sanitation Improvement Team (USIT). Prior to USIT sanitation coverage was low and concentrated within urban areas, whilst the large rural population suffering from water borne and sanitation related diseases. Because USIT initially fell within an externally funded project, it was able to act semi- autonomously with a high level of flexibility in terms of finance and social capacity. After a successful 3-year pilot study the programme was rolled out throughout the kingdom in 1984 and USIT became an independent department directly responsible to the Ministry of the Interior. At the same time the National Rural Sanitation Programme was established under the Ministry of Health. A formal programme linked the different stakeholders together and governed how public finances were to be spent and how results were assessed.



In its prime (the late 1980s to mid-1990s) USIT was involved in four main activities: sanitation promotion and demand creation; training Ventilated Improved Pit (VIP) toilet builders; a loan scheme to assist households to fund their own latrines; and pit emptying. By 1995, over 12 000 households in the capital Maseru had installed VIP toilets with USIT support. However, since then the urban populations have burgeoned (from 10% of the population to 25%); people fleeing drought in rural areas and migrant mine workers no longer able to find work in South Africa. As a result sanitation systems are no longer adequate⁶⁷.

Key challenges

The National Sanitation Programme is widely considered to be an excellent example of best practice on the continent but there are challenges that remain:

- As with all dry sanitation systems the emptying of Pit/VIP Latrines, both in financial and technical terms, is a challenge.
- USIT, once a textbook example of best practice, is much diminished. The programme still resides in government but coordination is fragmented, resources are limited and the programme has not evolved with changing socio-economic scenarios.
- Increased demand for rental accommodation means tenants are more vulnerable than the owner-occupiers targeted by USIT originally. It is critical to differentiate between poor owner-occupiers, rent-payers with little incentive to invest and landlords who may also require subsidisation.
- Government health spending on sanitation is not as high a priority as spending on HIV/AIDS.

Sanitation policies and legislation

- 1978 - **Water Resources Act** - Provides for the use, control, protection and conservation of water resources.
- 1991 - **Lesotho Water and Sewerage Authority Order** - Makes provision for the establishment of the Water and Sewerage Authority (WASA). WASA is empowered to ensure that its revenues are not less than sufficient to cover operating expenses, make payments on debts and to create reserves for the purpose of future expansion and improvements.
- 1992 - **Lesotho Water and Sewerage Authority Regulations** - deal with a range of WASA's operational activities.
- 1997 - **Strategy for the Future** – Produced by Department of Rural Water Supply (DRWS) to drive demand-driven expansion, full recurrent cost recovery, private sector delivery of services, increased community participation, and a shift from construction towards maintenance.
- 1999 - **Water Resources Management Policy (WRMP)** – Sets out the framework for a sector-wide reform, including the need for economic pricing of water resources, the rationale for introducing private sector participation, the necessity of institutional restructuring, and the requirement for a strong regulatory framework.
- 2001 - **The Environment Act** - Provides for the management of the environment and all natural resources. Provision is made for the establishment of standards for the quality of wastewater discharged to the sewerage system, as well as for standards for the discharge of treated wastewater to the receiving water environment.
- 2007 - **Lesotho Water and Sanitation Policy** – This policy is led by the Ministry of Natural Resources, DRWS and WASA and is governed by the principles of Integrated Water Resource Management. It recognises the need for holistic and sustainable water resources management and development approach, ensuring wide stakeholder and treating the resource as an economic, environmental and social good. It supports planning, coordination and service delivery within urban WSS, promotes the development of a community after-care strategy and promotes the sustainable use of resources within the sector by all stakeholders. The policy also meets the objectives of Vision 2020 and MDGs and is line with African Water Vision 2025⁶⁸.

Key institutions and their roles in the water and sanitation sector

From the beginning in 1980, the sanitation programme has always been carried out by government bodies. Two separate Sanitation Improvement Teams were set up for the urban and rural sectors. The Urban Sanitation Improvement Team (USIT) was located within the Ministry of the Interior. USIT started its work rapidly, with the support of the United Nations Development Programme (UNDP) and the Water and Sanitation Program, as part of a World Bank-funded Urban Development Project. In 1984 USIT became an independent department directly responsible to the Ministry of the Interior. The Rural Sanitation Improvement Team (RSIT) started in 1983 and led to the formulation of the National Rural Sanitation Programme (NRSP) in 1987, based in the Environmental Health Section of the Ministry of Health. From

that time to present both sanitation teams have continued their work as parts of the Lesotho Government's regular, centrally funded programme of public-sector development work.

Major sanitation projects and programmes

- **UNDP/World Bank (WSP)** - The National Sanitation Programme - urban and rural sanitation are managed as two sub-sectors and the government is promoting the construction of VIP latrines in order to address the backlog. Through this programme the government has increased sanitation coverage from 20% to 53% in 20 years; in addition it promotes good governance, partnerships with the private sector and has limited subsidies⁶⁹.
- **European Commission** – Funds the Lesotho Water and Sanitation Sector Programme. This aimed to contribute towards reliable and affordable sanitation for both domestic and industrial stakeholders. The project undertook maintenance and upgrading of wastewater infrastructure within Lesotho's capital Maseru, designed a medium-long term investment programme for bulk water supply in the lowlands and upgrading water and sanitation services in three municipalities in the region⁷⁰.

2.5. Madagascar

Background

The number of Malagasy people with access to safe water and sanitation remains very low and differs greatly between rural and urban areas. Despite efforts to date it is reported that only about 20 % of the entire population has access to piped sewerage or septic tanks; the rest rely on on-site sanitation⁷¹.



The figures on levels of access to sanitation in Madagascar vary substantially⁷² but the latest show an increase in those with access to improved sanitation as required to meet the MDGs: now at 18% in urban areas and 10% in rural areas but many still rely on shared ablution facilities (25% in rural areas and 41% in urban areas) while for a staggering number of people open defecation is still their only option (18% in urban areas and 38% in rural areas)⁷³. As with most developing countries in Africa, rapid urbanisation is taking its toll on available sanitation infrastructure.

In urban areas the management of sanitation systems is not well defined and differs from city to city. Beyond the capital Antananarivo, urban sanitation is typically entrusted to private entities and individuals and is run as a commune system. The communes are essentially works supervision agencies and facilities vary in number and capacity. They are responsible for operating and maintaining their facilities, which rarely collect sufficient revenues to cover costs. They are also responsible for wastewater and rainwater evacuation services and household refuse collection (solid waste management) but lack the human and financial capacity to carry out most of these responsibilities⁷⁴.

Sanitation in rural areas is noticeably lacking. However government has focused attention on rural needs and committed funding and WASH Committees also have a significant role to play in rural sanitation and hygiene behavior^{75,76}. Madagascar has a good track record of creating multi-stakeholder (administration, donors, national and international non-governmental organizations, and private sector) initiatives to promote better hygiene at the community level.

Key challenges

- Low budgetary priority accorded to sanitation and hygiene relative to other development areas, including water supply.
- Rural sanitation is constrained by a lack of funding, private sector participation, limited management capacity, and too few strategies to recover the cost of service making it difficult to achieve financial sustainability. The funding gap and the low capacity of the government to absorb and effectively manage outside donor contributions is cause for concern.
- The education ministry is a secondary player in sanitation and hygiene policy-making, with the result that sanitation and hygiene have been taken into account inadequately in curricula development and there are still schools being built without sanitation and hygiene facilities.

- Lack of capacity at the local level such as the communes remains a substantial challenge⁷⁷.
- The challenge for Madagascar is the synchronization of the national budget with medium-term WSS improvement program planning and significantly increasing sector capacity.

Sanitation policies and legislation

1994 - **Sector Strategy Paper and Plan of Action (SSPA)** - Based on a review of the WSS in the past, this aimed to improve the use of water resources of the country by providing adequate sanitation to the entire population.⁷⁸

1997 - The **Policy on Water and Sanitation** - Based on the SSPA and guides the management of water resources, and better sector organization with involvement of all.

1999 – **The Water Code** - Strengthened the 1997 Policy and aimed to ensure liberalization of the water and sanitation sector, payment for drinking water supply and sanitation services, involvement of local communities, NGOs and the private sector in construction and operation of infrastructure, and protection and integrated management of resources. It recognised that ownership at grassroots level was necessary for sustainability and the Water and Sanitation Regulatory Agency is responsible mainly for compliance with quality standards and tariff provisions of the Water Code⁷⁹.

2002 – First **WASH** Programme is initiated.

2005 - **National Program for Safe Water Supply and Sanitation (PNAEPA)** Was adopted with the objective of meeting the MDGs.

2006/08 - The **National Sanitation Policy**

2008 - The **Ministry of Water and Sanitation** was formed and ensures leadership of sanitation sector. All bodies in charge of sanitation are now under supervision of this ministry.

2007 - The **Madagascar Action Plan 2007-2012** replaced the 2003 poverty reduction strategy paper and includes basic sanitation such as latrines, hygiene promotion, rain and waste water management and solid waste management⁸⁰. It has set a target for basic sanitation for 65% of the population by 2012. Included is the Diorano-WASH programme (2008-2015) that covers coordination, monitoring and evaluation, capacity building, partnership, advocacy for and mobilization of funds, and behaviour change⁸¹.

Key institutions and their roles in the water and sanitation sector

Sanitation is the primary responsibility of the Sanitation and Sanitation Engineering Service (SAGS) within the Ministry of Health, followed by the MINATV (Ministère de 'Aménagement de Territoire et de la Ville) and finally the Ministry of the Industry and Handcraft. The latter deals with industrial pollution, together with the Ministry of Environment which also deals with the management of natural resources, while the MINATV plans sanitation infrastructure of urban sanitation, but each town has its own body to run its sanitation. There is still some

confusion because the Ministry of Energy and Mines (MEM) manages the underground and drinking water, and the Meteorology Department, the surface water.

Major sanitation projects and programmes

- **World Bank:** Supporting efforts in urban areas to rehabilitate WSS infrastructure, institutional capacity building through management restructuring and increasing financial and technical capacity, also focus on rural water supply and sanitation reform in partnership with UNICEF. Focus has been on increasing the targeting of budgetary allocation to sanitation and hygiene to ensure funds are not just spent on administration. The Pilot Project for Rural Drinking Water and Sanitation Supply (PDWSSR) was to support government in its efforts to establish a legal and political framework for the sector and reorganize and build capacities.
- **African Development Bank:** Institutional capacity building and management reforms in urban and rural WSS sub-sectors' and rural WSS infrastructure rehabilitation and expansion (PAEPAR project for WSS in the rural south of Madagascar and in eight regions, over three provinces including the region of Sofia). It is also intended to support information, education and communication activities, institutional and training components for government and non-government organisations, targeting households, schools, basic health centres and public markets where drinking water and sanitation facilities will be built. This funding includes engagement of NGOs experienced in studies of behavioural aspects to carry out KAP studies (knowledge, aptitude practices), as well as collaboration with UNICEF for use of local radio to disseminate hygiene promotion messages.
- **France/AFD:** Supporting urban WSS service provider capacity building and integrated water resources management and water source protection
- **UNICEF:** Rural water supply and sanitation - **UNDP** and UNICEF financed a project to build 150 productive boreholes in the rural south. A key focus of UNICEF's effort is on more effective education of children on hygiene practices.
- **WaterAid:** Supports five main partner organisations to work with communities in setting up, operating and maintaining their own water and sanitation facilities using low cost technologies appropriate to local conditions and ensuring education for good hygiene practices for project sustainability⁸².
- **Intercoopération Suisse:** Has also been supporting the sector since 2003 with a programme covering six regions.

2.6. Malawi

Background

Malawi is a rapidly urbanising country with about 60% of its urban population living in informal settlements⁸³. In 2008, estimates for access to improved sanitation were recorded at 56% of the population (51% in urban areas and 57% in rural areas – rarely in an Africa country are rural areas better served than urban)⁸⁴. Despite these figures, Malawi's biggest cities (Blantyre and Lilongwe) have only around 9% of homes connected to sewers. The remaining population are served by onsite sanitation (mostly pit latrines and some septic tanks systems)⁸⁵. There are variations in the definition of adequate access or safe access to sanitation that are the cause for exaggerated and conflicting assessments. It appears that coverage is seen as synonymous with accessibility, resulting in false hopes of meeting the MDGs⁸⁶. Almost 85 % of Malawi's total population is considered entirely rural or located in market centres and small towns. Thus the government plans to move toward district-based sanitation as this decentralisation is hoped to lead to greater coverage⁸⁷.



Key challenges

- The general challenges are aging water systems, growing urban and peri-urban populations, high levels of non-revenue water and low cost recovery within the utilities (exacerbated by the non-payment of Government bills).⁸⁸
- Communal sanitation facilities are increasingly relied upon in small and market towns and in peri-urban areas rudimentary latrines are contaminating shallow wells.
- Financial, managerial and technical capacity are severely lacking at all levels⁸⁹.
- Lack of coordination within state agencies and key stakeholders in terms of investment planning, implementation operation and maintenance within the sanitation sector.
- Lack of service provision to poor communities.
- Investment in sanitation is under-emphasized in relation to water supply, despite the recognition of the inseparable link between them. Water supply is approached as an investment, while inadequate sanitation is regarded as an issue requiring increased education on hygiene behaviour.
- Lack of promotion of awareness raising and behavioural change campaigns within urban poor communities to promote sanitation related health and hygiene good practice.
- Access to adequate sanitation in low-income urban areas is affected by facility availability, cost, and distance to the facility and waiting time. The commonly used indicator of distance to the facility may not then be applicable in most of these areas⁹⁰.

Sanitation policies and legislation

1995 - **Water Works Act** – Provided the legal framework for implementing the water resources management policy and strategies for supplying water and waterborne sanitation services. Local water boards were constituted and operate under the terms of the Water Works Act.

1998 - **Local Government Act** - Devolved responsibility for WSS to local authorities, however municipalities continue to be reliant upon water boards to fulfil this function.

2002 - **Poverty Reduction Strategy Paper** - Did not emphasize water and sanitation, so donor assistance for the WSS sector had not been available at the required levels.

2003 - **National Strategy for Sustainable Development** - Aims to support local government to achieve significant improvements for slum dwellers (the Cities without Slums initiative) by 2020 and contribute towards the achievement of the water and sanitation MDGs.

2005 - **National Water Policy** - Aims to address infrastructure needs in urban areas, wastewater and drainage, and encourages private sector participation in service provision, as well as encouraging clarified roles and responsibilities for the sector through legislative reform. It also mandates water boards as responsible for water and sanitation.

2008 - **National Sanitation Policy** - Aims to achieve universal access to improved sanitation, improved health and safe hygiene behaviour by 2020. Prior to this there was not clear strategy, cooperation or governance within the sector. This also mandates water boards as responsible for water and sanitation but this causes conflict between local authorities and the water boards.

Key institutions and their roles in the water and sanitation sector

Key institutions include the Ministry of Irrigation and Water Development (MIWD), city assemblies and the Ministry of Health and Population (MHP). The MIWD is increasingly withdrawing from implementation in order to concentrate on good governance in policy, regulation, monitoring & evaluation and water resource management⁹¹. The MHP promotes health and hygiene education, guidance on the quality of drinking water and works to prevent outbreak of water-borne and sanitation related diseases⁹².

Major Sanitation projects and programmes^{93, 94}

- **World Bank** – Supports urban and rural sector reform, utility reform, infrastructure investments and low-income service provision. The World Bank is currently supporting a five year National Water Development Project (NWDP II), which aims to achieve 80% water coverage by 2011.

- **African Development Bank** - Extending basic water and sanitation supply in six rural districts.
- **European Union** - Institutional reform (sanitation sub-sector), potential support to urban reform and public-private partnerships, infrastructure investments, leak repair, and new connections.
- **European Union** and the **European Investment Bank**: Supported the extension of water supply and basic sanitation within two of the country's major cities (2008-2012).
- **UNICEF** - Investment in school sanitation and hygiene promotion, participating in the drafting of guidelines for child and gender friendly urinals and hand-washing facilities.
- **WaterAid** - Advocacy, project implementation and the promotion of partnerships; working with district assemblies to promote ecological sanitation. WaterAid is part of the **WES NGO** network of agencies that includes Water for People, CCAP Synod of Livingstonia, Work for Rural Health, Targeted National Relief and Development, and Training Support for Partners.

2.7. Mauritius

Background

Mauritius is on target to meeting its water and sanitation MDGs with 93% of the urban population and 90% of the rural population already having access to improved sanitation⁹⁵. Only 26% of the Mauritian population are however connected to the public sewer network. The remaining 74% uses on-site wastewater disposal systems. The first sewer pipes were laid in Port Louis in the late 19th century. Since then and until the mid 20th century, there was very little development in the sub-sector.⁹⁶



Access to safe water is almost guaranteed but occasional dry spells do occur; disrupting agricultural activities and leading to water cuts. Due to this and an increase in water requirements by industries, large scale wastewater reclamation is practiced, mainly for wastewater reuse for irrigation of sugarcane⁹⁷.

Key challenges

- Periodic dry spells lead to limited water so a move towards ecological sanitation technology will allow for ecologically sustainable growth in the sector.
- Climate change is not currently addressed in any sanitation planning.
- Policies and legislations do not effectively address pollution arising from effluents discharged by domestic (including commercial) and industrial activities and it is essential that all sources of pollution are effectively addressed.

Sanitation policies and legislation

1971 - **Central Water Authority Act** – This allowed for a sole body to be responsible for providing water supply services, and it carrying out assessments, development, management and conservation of water resources in Mauritius.

1988 - **National Environmental Action Plan** - Highlighted inadequate disposal of wastewater as a priority area for government attention.

1993 - The **National Sewerage Master Plan** (1993–2012) - Aimed to expand the network and to construct new pumping, treatment, and discharge facilities to serve households and industries throughout Mauritius and Rodrigues. It specified urgent investments required to reverse damage to the environment and to protect public health. The aim is to provide public sewerage coverage mainly in the urban areas to about 80% of the population by 2020.

1999 - **National Environment Strategy (1999 – 2010)** - Provides the basis for the comprehensive Environment Protection Act. The second **Environmental Action Plan** (NEAPII) was prepared.

2000 - **Wastewater Management Authority Act** (amended 2004) - Led to the formation of the Wastewater Management Authority. It ensures that a maximum number of premises

get connected to the public sewer system whenever necessary; specifies environmental and service standards, enforcement responsibility, and defines responsibilities relative to the WMA and other agencies involved in the sector.

2002 - **Environment Protection Act (EPA)** - Provides the legal framework for environmental protection throughout the country including pollution from the sanitation sector. The **Action Plan for the Environmental Sewerage and Sanitation** Project was reviewed under the EPA.

Key institutions and their roles in the water and sanitation sector

The Ministry of Public Utilities is the parent body for the management of water resources but within this structure the Central Water Authority is responsible for potable water distribution, the Irrigation Authority for responsible for irrigation purposes and the WMA is responsible for managing wastewater⁹⁸.

The Wastewater Management Authority(WMA) that was formed in 2001 was designed to promote accountability and sustainability through efficiency and customer focus, with the aim to manage wastewater. It is empowered to charge rates for sewerage connections and is comprised of four distinct units: The Pollution Control Unit, the Project Management Unit, The Operation and Maintenance Unit and The House Connection Unit⁹⁹.

Major sanitation projects and programmes

In all projects the Government of Mauritius is bound to contribute partly to the financing.

- **African Development Bank** - The Plaines Wilhems Sewerage Project to ensure environmental sustainability by averting and reversing the potential for environmental degradation by wastewater through improved collection and treatment of sewage, and disposal of effluent and sludge from the Plaines Wilhems catchments area. It is also funding the 2010-2033 Mauritius Wastewater Master Plan Study and in the past the 1989-2009 Mauritius Wastewater Master Plan Study, the Port Louis Water Supply Project and the Port Louis Sewerage Project.¹⁰⁰
- **World Bank** – To improve the health and sanitary conditions of the population of the southern districts of Port Louis and affected coastal zones, reverse the trend of environmental pollution on the island and in its coastal zone, and support government's efforts to implement priority institutional and technical measures identified in the sewerage master plan. This was co-financed with the **Japan Bank for International Cooperation (JBIC)**.

2.8. Mozambique

Background

Mozambique, while rich in natural resources, was plagued by civil war from 1977 - 1992. Sanitation coverage is low within the country in part due to lack of maintenance and expansion of water and sanitation services during the war and this is visible still in the latest MDG progress assessments. In rural areas, only 4% of the population have access to improved sanitation whilst 59% still practise open defecation as this is their only sanitation option. In urban areas this is slightly better, with 38% with improved sanitation and only 14% are still practising open defecation¹⁰¹. Whilst many countries within SADC display similar disparity between urban and rural areas, a gap this large is rarely observed. This is partly due to major urban areas receiving substantially more attention from both government and donors in terms of both capacity building and financial support and so rural areas still lag behind.



Mozambique is particularly vulnerable to cyclical natural disasters (in particular floods) and this is projected to be aggravated by a changing climate. Despite these vulnerabilities, Mozambique is a good example of post-conflict transition, with sustained macroeconomic and political stability. Strong economic growth continues to be driven primarily by foreign-financed “mega-projects” and large aid inflow. This has helped Mozambique’s water supply and sanitation sector to implement policy and institutional reforms that have increased its capacity to provide urban WSS services.

Key challenges

- Sustainability remains the biggest weakness in Mozambique’s donor-financed water and sanitation sector interventions¹⁰²
- Monitoring and evaluation systems need improvements so that transparency, project timelines, and cost effectiveness are better tracked.
- Some donors have symbolically cut aid due to corruption in the government.
- Public-private partnerships are desirable, however at present the private sector is too underdeveloped.
- Reducing dependence on outside funding sources by increasing cost recovery strategies is required as is the ability to mobilize funding through implementation.
- Large disparity between access to improved sanitation between urban and rural areas as most of the population are poor and rural; there is need to balance urban and rural WSS budget allocations and expenditures.
- Post-civil War Mozambique has a large backlog in sanitation services and infrastructure.
- Lack of human, technical and financial capacity and a lack of data within the sector.

Sanitation policies and legislation

1991 - **Economic Rehabilitation Programme** (1991-1993) – Called for decentralisation of sanitation supply to private sectors as privatisation can often improve fiscal capacity within a country. However the private sector was too underdeveloped at the time.

1995 - **National Water Policy** – The guiding document for sanitation in Mozambique and aimed to move from a supply driven to demand driven system. It falls within the NWDP. This was revised in 2007.

1995 - **National Water Development Program** (NWDP) - Was designed to reform and clarify allocations of administrative, regulatory and development roles. This sought to balance strong regulation with delegated management by transferring operational responsibilities for water supply to private companies. Promoting ownership was important as many communities believed that sanitation was not their responsibility. The long term aim of decentralisation was to transfer full responsibility of financial management, contracts and quality control to the district level. Under the public-private partnership, assets in 13 cities are owned by the government through an asset-holding company FIPAG, while operations are delegated to a private company, Aguas de Mozambique, which is jointly owned by a public Portuguese firm and local investors.

1998 - **Water Tariff Policy** - Set out a commercially-oriented tariff regime that would support cost recovery and long-term financial sustainability of the water supply system. The policy focuses on urban areas, with weak attention on rural WSS issues.

2004 -2009 - **National Poverty Reduction Strategy Paper II** (PARPA II) - Aims to increase the provision of sanitation in both urban and rural areas; reducing costs by strengthening the improved latrines program; and raise coverage levels of water supply to rural areas. PARPA is aligned with the National Water Policy, but constraints include a misalignment of WSS sector funding, no clear rural strategy, and capacity issues within the National Directorate for Water Affairs (DNA). DNA has responsibility for the entire water sector but its ability to fulfil this role is limited and donors have had to step into the rural sector – often with an uncoordinated approach and insufficient follow up and maintenance.

Key institutions and their roles in the water and sanitation sector

- Ministry of Public Works and Housing (MOPH) - Overarching ministry for water sector issues.
- National Directorate of Water (DNA) - Policy and strategy development; overall responsibility for the water and sanitation sector.
- Water Regulatory Council (CRA) - Economic and other regulation of water systems.
- Investment and Assets Fund for Water Supply (FIPAG) - Owns infrastructure in some urban areas and leases out the management to private operators.

Major Sanitation projects and programmes

Grupo de Agua e Saneamento (GAS) serves as a forum for major donors and government to interact and evaluate progress within the sector, as part of the move towards institutional reform within the sector.¹⁰³

- **World Bank** - Urban, peri-urban and small town water supply infrastructure development, institutional reform and management capacity building and private sector participation. The first World Bank project (1998–2006) supported building capacity, rural water supply, water resources management, and the preparation of infrastructure for a new urban water supply. The strategy, implemented during the second water project (2004–2009), supported large-scale civil works for urban water supply systems. Another project, the Water Services and Institutional Support Project, aims to increase water service coverage in Beira, Nampula, Quelimane, and Pemba. The Mozambique Water Private Sector Contracts project is an output-based aid project that aims to provide subsidized water connections for domestic consumers in Maputo, Beira, Nampula, Quelimane, and Pemba. This project is implemented by the parastatal *Fundo de Investimento e Património de Abastecimento de Água* (FIPAG) and expects to subsidize the construction of more than 30 000 shared yard taps which would impact approximately 468 000 people.
- **USAID** - Investing in the Water and Sanitation Project targeting eight municipalities within the country with a focus on the promotion of health and hygiene.
- **Water and Sanitation Program (WSP)** - Village and point source facilities development, sustainability and demand-led reforms and community management support.
- **African Development Bank** - Urban and rural water supply infrastructure development and management capacity building. AfDB is co-financing the second national water supply project and the Niassa Provincial Towns Water and Sanitation Project in Cuamba and Lichinga towns.
- **Denmark/DANIDA** - Watershed protection and other water resource management support.
- **Japan International Cooperation Agency (JICA)** - Rural water resources development and supporting human resource capacity building in service provider management.
- **Millennium Challenge Corporation (MCC)** - Urban and rural water and sanitation infrastructure development, institutional capacity building at national and local levels and policy reforms¹⁰⁴ (focus in Zambezia, Nampula, Cabo Delgado and Niassa provinces)¹⁰⁵.
- **UNICEF** - Water, sanitation, and hygiene (WASH) - Policy reform, decentralization and advocacy of access by children to safe drinking water and sanitation.
- **Irish Aid** - General budget support with 65% going to priority poverty areas and rural water supply development at provincial level.
- **Swiss aid** is partially channelled through NGOs such as **Helvetas** in Cabo Delgado Province, **CARE** in Nampula and Cabo Delgado provinces and **WaterAid** in Niassa and Zambezia provinces and is focussed on promoting, documenting and disseminating innovative experiences and bring them to the national debate in partnership with other donors such as the World Bank and the European Union.

2.9. Namibia

Background

Namibia is the second least densely populated country in the world and is rich in natural resources. In regard to access to improved sanitation the figures produced by national government¹⁰⁶ correspond with the estimates provided in the MDG assessments. According to the report, in 2008 Namibia's total access to improved sanitation sources was 33%, with 60% in urban areas and 17% in rural¹⁰⁷. Whilst Namibia is on track in regard to access to safe drinking water, progress in the sanitation sector has been much slower. Namibia is a water scarce country and its recent history has been free of conflict, both factors are thought to contribute to the progress made in regard to access to safe drinking water.



Aside from the MDGs Namibia has set its own goals for sanitation coverage. The Third National Development Plan (2007-2012) hopes to achieve overall national sanitation coverage of 65% of which coverage in urban areas should be at least 92% and for rural areas at 50% by 2012. Namibia Vision 2030 has also a more stringent target of complete sanitation coverage by 2030.

Key challenges

- Namibia is a water scarce country and although water borne sanitation is favoured in urban areas, alternatives must be considered for rural areas.
- Huge backlog in infrastructures (about 150 000 facilities are needed to be built to reach MDGs) and increasing urbanisation puts further pressure on municipalities.
- Poor sub sector coordination with work conducted in isolation.
- Poor commitment of some Ministries and poor planning at regional level (priorities are not well identified).
- Insufficient budget allocated to sanitation sub-sector.
- Regulations, strategies and policies not yet harmonised.
- Poor community participation in decision making process and in the selection of sanitation technologies (poor demand in rural areas, poor use of facilities in low income areas).
- Lack of skills on sanitation issues (hardware and software) at all levels. Lack of appropriated formal educational training on sanitation.
- Water and sanitation tariffs structures and subsidies allocation are not harmonised.
- Cross subsidy mechanisms are insufficient to support water and sanitation cost.¹⁰⁸

Sanitation policies and legislation

1969 - **Public Health Act** (now under review) - Addressed sanitation issues and specifically the obligations for individuals (private) and public places to comply with¹⁰⁹.

1993 - **Water Supply and Sanitation Policy I (WASP I)** - Allocated the rural sanitation function to the Ministry of Health and Social Services (MOHSS) together with other stakeholders providing supplementary roles¹¹⁰.

2008 - **Water Supply and Sanitation Policy II¹¹¹ (WASP II)** – Replaces WASPI and the main objective of the policy is to improve the provision of sanitation services to: contribute towards improved health and quality of life; ensure a hygienic environment; promote conservation of water; stimulate economic development; and protect water sources from pollution. Beneficiaries should contribute towards the cost of water and sanitation. Environmentally sustainable development and efficient utilisation of water resources should be pursued and accompanied by educational and awareness raising campaigns.

2010 - **National Sanitation Strategy¹¹²**(20/11 – 2014/15) – Based on WASPII guidelines and provides the framework that outlines the approaches and activities that the sector intends to take in order to achieve sustainable success in the medium term. It provides an integrated five year plan and serves as a communication vehicle for conveying its direction. It will be used to demonstrate its focus areas, objectives, projects and allocation of resources in response to its mandate and challenges. This strategic plan is defining the Sanitation Sector's strategic focus areas, objectives and initiatives for this period. It was compiled in close collaboration with the role players¹¹³.

Key institutions and their roles in the water and sanitation sector

The coordination in the sanitation sub-sector is, as mandated by WASP II, by the Directorate of Water Supply and Sanitation Coordination in Ministry of Agriculture, Water & Forestry (MAWF). Central government must allocate financial resources for WSS if regional and local government are not able to provide such services to the poor and marginalised. Local Authorities and Regional councils will be responsible for sanitation in urban areas where demand is continually growing and increasing backlog exists.

Major sanitation projects and programmes

There are a number of key non-state actors operating in Namibia within the WSS including the World Bank, UNDP, and GiZ that have collaborated in supporting Namibia's Water Resources Management Review, which comprised of a comprehensive review of the water resources sector in the country.¹¹⁴

- **UNDP/GEF** – Supports the Clay House project which had developed a dry toilet system that suits Namibia's dry conditions and this is being rolled out around the country and due to its success is now being used in Haiti (2005-2009)¹¹⁵.
- **GiZ** (formerly GTZ) – Active in the country since 2003 is funding the **Sewerage Water Awareness Management Project** in the northern region of Namibia to organise and implement water supply. They have also supported the **Communal Areas Water Supply Project** that is providing support to development of a community-based management strategy for rural water supply and capacity building in the water sector.

- **UNICEF** - Involved in rural water supply and sanitation and in partnership with Namibia's Health Ministry and Glaxo Smith Kline also works on a hygiene and sanitation awareness project. The project goal is to support the development of a National sanitation promotion campaign, and a National policy, strategy and action plan on Sanitation & Hygiene Promotion in Namibia. This will raise awareness about the benefits of hand washing and improved sanitation, targeting the entire population, with a focus on mothers and other caregivers of children under the age of five, and to focus specifically on schools and school-age children, who themselves are often caregivers of their younger siblings (2008/9).
- **European Commission** - The Water Supply and Sanitation Project for the Rural Communities in North Namibia is focussed on increasing access levels of safe water and Sanitation facilities to households and also targeting schools. Hygiene promotion and community management are key elements (2008 – 2013)¹¹⁶.
- **Red Cross** - The water and sanitation project is part of the community-based health and care programme. The project's main objective is to improve the health status of rural communities by reducing morbidity and mortality due to water and sanitation related diseases in the Kunene Region, in Opuwo district. The project's main beneficiaries are the semi-nomadic Ovahimba and Ovazemba tribes, and the more settled Ovaherero as well as other minor tribes in area (1992 – ongoing)¹¹⁷.

2.10. Seychelles

Background

The Republic of Seychelles has a very high population density (over 500 inhabitants/km²) on its main island Mahé. Lack of investment in water and sanitation infrastructure remains a major constraint on development of economic activities, in particular tourism. During the last decade, public sewerage schemes have been implemented for the most densely urbanized areas of Mahé, but these operate below capacity due to insufficient financing. In total it is estimated that 80% of the population rely on septic tanks and 20% are equipped with latrines, of which only about 10% are connected to the two public sewerage systems¹¹⁸. The remainder are ineffective, likely largely due to the rocky terrain that is unsuitable for soak-away pits¹¹⁹. It is highly probable that the Seychelles will meet its sanitation target as 96% of the urban population have sanitation that meets the minimum requirements¹²⁰.



An extension of the sewerage system is necessary to reduce the growing pollution of rivers and coastal waters, evidenced by water tests revealing faecal contamination, most likely the result of ineffective sewage treatment at household level. Although individual sanitation regulations exist they are scarcely enforced during construction and there is no follow up. Their contribution to pollution is increasing as a result of poorly maintained/defective equipment. Inadequate sewerage charges resulted in financial losses to the Public Utilities Corporation (PUC) department in charge of water supply and sewerage. This compounded its diminishing ability to extend the coverage of most urbanized areas. This sub-sector remains one of the main areas where Seychelles requires external assistance.

In 2009, the management of PUC was contracted to Coffely, a private company, and the new management is committed to improving the sanitation in Seychelles. They have implemented a recovery plan of both plants, which are now functioning at 75% efficiency. PUC plans to continue maintaining and improving the plants and has (with new private stakeholders) extended to collecting wastewater from ships.

Key challenges

- Lack of effective sanitation policy guidelines for good practise.
- The greatest concern is pollution – domestic sources of pollution are a major threat to the watershed and coastal environment (despite heavy Government investments in waste water treatment in the main urban areas).
- Lack of a specific long-term integrated coastal management strategy and programme, no local land use plans and short-comings of Environmental Impact Assessments in assessing cumulative and long-term effects.
- Lack of sustainable financing for waste and sanitation projects.
- Limited number of trained Seychellois professionals and technicians in waste or integrated coastal management.
- Institutional changes have led to ineffective coordination between all parties involved in waste management (government, waste agency, NGOs and private sector).

- Facilities and equipment for all waste management require upgrading and maintenance¹²¹.

Sanitation policies and legislation

1995 - The **Water Master Plan** – Is now considered outdated and the review will include the institutional and policy framework, improve management capacity, ensure financial sustainability of the sector, and identify the short- to long-term capital investment needs.

1999 - The **Environment Management Plan of Seychelles (EMPS)** (2000-2010) Aimed to provide 30% of northern Mahé with access to public sewers, and extend public sewerage systems to central Mahé and Praslin, to improve standards for the existing individual systems (septic tanks) and limit the use of latrines to 10% of the population¹²². This is currently the most comprehensive national plan aimed at implementing Agenda 21. The overall goal of EMPS 2000-2010 is the promotion, coordination and integration of sustainable development programmes that cut across all sectors of society in the Seychelles.

The Government has yet to define any specific water and sanitation policy as it remains embedded within the broader EMPS. PUC uses the 1973 Constitution and the Public Utilities Corporation Act (revised 1991) as guidelines that are inadequate for good practise¹²³.

Key institutions and their roles in the water and sanitation sector

The main institution involved in waste water management is the Public Utilities Corporation (PUC) as the entity responsible for provision of adequate sanitation to the populace. The Ministry of Environment and Transport is the parent Ministry of the PUC in these matters and is responsible for pollution monitoring and management. The Ministry of Health is also involved, as part of its mandate is to protect public health. In the past the provision of adequate sewerage systems, like water, electricity, health and education has been regarded as a basic right and the satisfaction of needs has been a guiding principle of the overall development strategy.

Major sanitation projects and programmes

The **Environment Management Plan of Seychelles** comprises three specific programmes:

- Environmental Health Sanitation Programme - The Sanitation programme is linked with wastewater treatment plan, in which several investment projects are planned for the mostly heavily urbanized regions of the count.
 - Environmental Health (Hygiene), Education and Sensitisation Programme.
 - Sustainable Resources for Environmental Health (Human, Material and Financial Resources)¹²⁴.
- **European Community** – Though involved since 1977, all funding is now focussed on the environmental sector and in particular management of the WSS sub-sector: Institutional strengthening and capacity building of the sector and to the PUC, improvement of water supply and distribution and improvement of sanitation control and monitoring (2008 – 2013).

- **African Development Bank** – Is funding the Seychelles Water Supply Development Plan 2008 for the three islands. This will allow the Seychelles to attract the water project investments to meet demand up to the year 2030. It will also help identify and bring in measures to reduce water demand, and to improve the performance and service delivery of the Public Utility Corporation.
- **World Bank** – Has in the past funded water, sanitation and flood protection projects and is now funding a Development Policy Loan. Active programs also include two grants, one for infrastructure rehabilitation after the 2004 tsunami, and the other for environmental protection and disaster management capacity building – both of which have a sanitation component.

2.11. South Africa

Background

In 1994 South Africa underwent a major transition to full democracy and accordingly the water and sanitation sector too underwent large scale reform. This was driven by central government until 2003 when service provision for both urban and rural sector responsibilities was devolved to local government. This was done to eradicate backlogs within the sector. South Africa has already surpassed the MDG targets for water and sanitation; access to improved sanitation infrastructure improved from 48% to 79% from 1994 to 2010. South Africa has also set more stringent independent goals aiming for universal coverage by 2014¹²⁵. The latest assessment still show only 65% of the rural population have access to improved sanitation; the urban population better serviced at 84%¹²⁶.



Key challenge

- Addressing sanitation backlogs that persist within informal settlements.
- Sanitation in rural areas needs to be prioritised.
- Waste water treatment works operating over capacity and skills shortages exist at all levels of waste water treatment management.
- Shortage of skilled, technical, engineering and management level human capacity
- Lack of sanitation policy guidelines for basic sanitation service delivery to dense urban informal settlements and for severely marginalized groups such as people with physical disabilities, elderly, women, children, HIV/AIDS infected individuals and child-headed households.
- Lack of policy for operation and maintenance of VIP toilets and other on-site sanitation technologies, especially the emptying of full pits and safe disposal of pit sludge.
- Sanitation policy guidelines for the integration of water conservation and water demand management strategies into the delivery of basic sanitation infrastructure and development of economic and legal instruments for enforcing compliance.
- Policy guidelines for solid waste management in all types of settlements, especially the settlements that were currently neglected and for institutional sanitation including public toilets for urban and rural areas.^{127, 128}

Sanitation policies and legislation

A recent report (2011) has been released by the Socio-Economic Rights Institute of South Africa (SERI) summarising Basic Sanitation in South Africa: Legislation, Policy and Practice, below is a summary of the key legislation highlighted within the document as outlined below¹²⁹.

1996 – **Constitution of the Republic of South Africa Act 108** – While it does not specifically indicate the right to basic sanitation it is implicit in many clauses within the constitution of South Africa including with the Bill of Rights. In addition it is implied within the

following clauses Environment, Housing, Water, Human Dignity, Privacy, Freedom and Security of Person, Equality and Local Government and municipal basic services.

1997 - **Water Services Act 108** - 'To ensure that everyone has access to basic water supply and sanitation service necessary and not harmful to human health and well being'. It encompasses all relevant stakeholders within the sector including civil society, national, provincial and local government and water service providers such as the private sector and water boards. Following this reform there was a corresponding restructuring in regard to funding within the sector. Water and sanitation funding was combined into the Municipal Infrastructure Grant (to support investment in municipal infrastructure servicing poor people and is an unconditional capital grant)^{130, 131}.

1997 – Housing Act 107 – Outlines South Africa's sustainable housing development process at each of the three spheres of government; national, provincial and local. It is highly relevant to sanitation in the context of South Africa given that sanitation is a 'core service necessary to provide adequate housing but in addition the government has linked sanitation provision to its housing delivery programme through the National Housing Subsidy Scheme (NHSS)' ¹³².

1998 – National Water Act 36

1998 – Local Government: Municipal Structures Act 117

2000 – Local Government Municipal Systems Act 32 – Clearly encompassed sanitation services within the right to basic services that are the responsibility of the municipality to provide. 'Linking to the Local Municipal Systems act the Free Basic Services Policy was adopted including a Free Basic Sanitation (2009) Implementation Strategy' ¹³³.

2003 – Local Government Municipal Finance Management Act 56

2003 – National Health Act

Policy summarized in SERI's recent 2011 report follows¹³⁴:

- 1994 – White Paper on Water Supply and Sanitation Policy – Published to address the estimated 21 million South Africans (50%) that did not have access to basic sanitation. The core objective 'of the White Paper was that water services development should be demand driven'¹³⁵. The policy placed emphasis on 'developing sanitation services that would be self-financing at the local and regional level, with the exception of low income communities and informal settlements that could not afford to pay for basic services'¹³⁶.
- 1996 – National Sanitation Policy – Provided a concrete step towards the development of the National Sanitation Strategy, Within the Policy sanitation is considered as 'the principles and practices relating to the collection, removal or disposal of human excreta, refuse and waste water, which impact upon users, operators and the environment'¹³⁷. In addition to provided a cohesive definition of sanitation the policy recognises that a number of the sanitation technologies in use within the country do not meet the policies criteria for adequate sanitation¹³⁸.

1996 - **National Sanitation Programme** – Launched by the Department of Water Affairs and Forestry (DWAFF now Department of Water Affairs (DWA)) the programme objective aimed to eradicate the sanitation backlog by 2010, the programme was coordinated through the National Sanitation Programme Unit (2002)^{139, 140}.

2000 - **The Basic Sanitation Policy** - States that government has a responsibility to ensure that all South Africans have access to adequate sanitation services. Key target areas included rural, peri-urban and informal settlements where there is the greatest need for services. The main objectives are provision of adequate sanitation for households, schools and clinics; improving household waste collection and disposal and educating the public regarding hygiene.

2001 – White Paper on Basic Household Sanitation – Specifically outlines that ‘government has a constitutional responsibility to ensure that all South Africans have access to adequate sanitation, particularly those that have not had adequate sanitation services in the past’¹⁴¹

2003 – Strategic Framework for Water Services: Water is Life, Sanitation is Dignity – The National Framework pertaining to the water services sector with the objective of providing a cohesive overview of legislation, strategies and policies pertaining to water service provision in the country¹⁴². Building upon the 2001 White Paper that aimed to encourage and promote households maintaining and servicing their toilets themselves, towards sustainable sanitation servicing by municipalities. In addition it serves to contribute towards the Free Basic Sanitation policy formalised in 2009¹⁴³. One of the main initial targets within the Strategy was to ensure that all South Africans had access to basic and affordable sanitation by 2010, which has since been altered to 2014.

2004 – Breaking New Ground: A Comprehensive Plan for the Development of Sustainable Human Settlements (Breaking New Ground)

Regulatory Guidelines and Strategies identified during SERI’s 2011 review are as follows¹⁴⁴:

2002 – Sanitation Technology Options

2003 – Onsite Groundwater Contamination Protocol

2005 – National Sanitation Strategy: Accelerating Sanitation Sector Delivery – The overarching goal of the National Strategy was to eradicate the sanitation backlog by 2010 and to provide a cohesive approach to addressing sanitation service delivery within South Africa. In addition the strategy has a unique approach to informal settlements indicating that long term planning should be undertaken where systems will have a lifespan of in excess of one month, moving away from implementing chemical toilets and communal facilities and planning within the context of the settlement and not in a reactive (emergency situation) manner¹⁴⁵.

2007 – Guidelines for Strategy Formulation and Implementation plan for the Provision of Sanitation Services in Informal Settlements

2008 – **Green/ Blue Drop Accreditation** – DWAFF launched a certification program aimed at awarding water services authorities with Blue (drinking water) or Green Drop (sanitation

and wastewater) Status if they comply with legislation and other best practices required. This incentive-based regulatory approach is a first for South Africa, and is internationally regarded as unique in the drinking water regulatory domain.

2009 – Free Basic Sanitation Implementation Strategy – Building upon previous legislation and policy in this regard the strategy aims to eradicate the backlog in regard to sanitation by 2014, ensuring that every South African has access to free basic sanitation. In line with many current thoughts within the sanitation sector the strategy recognises the need to be flexible and allow application of local choice and planning within the national guidelines.

Key institutions and their roles in the water and sanitation sector

The WSS in South Africa was organized in three tiers: 1) national government, represented by the now Department of Water Affairs, as a policy setter; 2) Water Boards, which provide primarily bulk water, some retail services, operate some wastewater treatment plants and play a role in water resources management; and 3) Municipalities, which provide most retail services and own some of the bulk supply infrastructure. In 2009 sanitation was then moved from DWAF to the National Department of Sustainable Human Settlements (Housing).

South Africa Local Government Association (SALGA) is mandated to work with local governments and in this capacity the organisation collaborates with a variety of stakeholders including government, civil society, NGOs, academic and research institutes, private operates and development partners. As sanitation falls under the mandate of local government it is a key priority and SALGA is active in dissemination of knowledge and information, capacity building, workshops and ensuring that member local governments are aware of progress needed to address the existing backlog.

Additional stakeholders include: banks, private operators and professional associations such as **Water Institute of Southern Africa** and the **Water Research Commission**. NGOs such as the Mvula Trust also play an important role.

Major sanitation projects and programmes

- **National Community Water Supply and Sanitation Programme** – This was established through dedicated funding from national government to build upon the experiences of the Mvula Trust (a well-known water supply and sanitation NGO that has, since its inception pre-1994, run many well-funded projects in rural and peri-urban communities). It strongly promotes community consultation and participation, required community contribution, enlisted local labour and ensured that local communities were engaged within the operation and maintenance (enhancing both durability and sustainability).
- **South Africa WASH coalition** - Provides general health and hygiene information and is an integral partner and key stakeholder. Projects include a national survey on the state of WASH issues, development of tools and guidelines to streamline sanitation planning and implementation of projects by municipalities, organising and coordinating key awareness raising and behaviour change initiatives, stakeholder engagement and

involvement and production and dissemination of materials linked to sanitation operation and maintenance (2002 – ongoing)¹⁴⁶.

- **USAID** - Drinking water supply and sanitation, as part of the Housing and Municipal Programme. USAID is pioneering several models of innovative financing for water-related infrastructure in developing countries including South Africa – since 1996.¹⁴⁷
- **DFID** - Rather than direct project financing, DFID has chosen to concentrate on supporting capacity building projects, particularly working through the DWAF to strengthen capacity for managing WATSAN projects at local government level¹⁴⁸.
- **DANIDA** – Together with DWAF initiated a pilot program that included an Integrated Water Resource Management approach and, to date have implemented almost eighty projects (2007 – 2010)¹⁴⁹.
- **Norwegian Agency for Development Co-operation (NORAD)** – The Programme on the Sustainable Development of Groundwater Sources under the Community Water Supply and Sanitation Programme is a collaborative venture between DWAF, the Council for Scientific and Industrial Research, the Council for Geoscience, Mvula Trust and the Geological Survey of Norway. South Africa relies on Norwegian skills in groundwater, used all over Africa for NORAD funded programmes – since 1997.
- **World Bank(WSP):** The government's WSS Masibambane Project (1994 – ongoing) is a large scale operation targeting 2.4 million people in 3 provinces (Kwazulu Natal, Limpopo, and Eastern Cape) and is funded by both the government and the donor community (see EU)¹⁵⁰.
- **Development Bank of Southern Africa (DBSA)** - The main current activity in the sector is the development of an Investment Strategy¹⁵¹ but has been instrumental in funding of the eThekweni Municipality sanitation project, now the largest urban roll-out of dry sanitation.
- **European Union (EU)** - Committed about R1-billion to support South Africa's water and sanitation provision programmes between 2007 and 2013 and the third phase of government's water and sanitation provision programme (Masibambane 2001 - 2007).

2.12. Swaziland

Background

The kingdom of Swaziland, is, with adequate funding, likely to achieve its own stringent national goals (sanitation to the entire rural population by the year 2022) and so exceed the MDGs¹⁵². Access to improved sanitation is currently around 55%, but this is higher in urban areas (61%) than in rural areas (53%)¹⁵³ where the majority of Swazis have pit latrines. These figures highlight a real disparity in water and sanitation services throughout the country¹⁵⁴ but significant progress is being made in rural areas.



There are some corresponding declines in the incidence of water-related diseases, such as diarrhoeal diseases which is critical as although classed as middle income country, Swaziland continues to face a number of development challenges. These include extreme poverty (48% prevalence), high income inequality, a high HIV/AIDS prevalence rate and high unemployment. The country has seen economic growth weakened over the past decade¹⁵⁵. The high rate of infant mortality in the country is attributed to diarrhoea, malnutrition and infectious diseases, which can be linked to the lack of a potable water supply and sanitary facilities and to poor hygiene¹⁵⁶. In the wake of the 2000 cholera epidemic it became crucial to limit water- and excreta-related diseases that have very high prevalence rates in the country¹⁵⁷.

Key challenges

- Adequate funding is required for Swaziland to meet its sanitation targets.
- Unequal distribution of water and sanitation coverage between urban and rural areas within the country.
- There is an absence of policies in the sanitation sector and so civil society and governmental organisations need to develop the capacity and ability to deal with problems relating to water and sanitation.
- The HIV/AIDS crisis affecting the country affects all aspects of the WSS.

Sanitation policies and legislation

1967 – **Water Act** – This was repealed by the Ministry of Natural Resources and Energy and replaced by the Water Bill No. 7 2000.

1998 - The **Swaziland Administration Order** - This empowers the Ngwenyama (King in Council) to issue orders and can be used as a tool for managing water resources in communal land. Among other things, these orders require measures to be taken to secure proper housing and sanitation.

1999 - **National Plan of Action (NPA)** (1999 – 2002) – The Rural Water Supply and Sanitation Branch calls for an increase in the share of maintenance costs borne by communities, consistent with the newly developed sector policy and strategy guidelines: communities are now responsible for at least 50% of the cost of replacing major system components. The NPA has stressed the sectoral goal to extend access to safe

sanitary excreta disposal to the entire rural population by the year 2020. It recognised that rural sanitation facilities are basic developmental needs necessary for the improvement of health and living conditions and should remain fundamental components in the long-term rural development¹⁵⁸.

2000 – **Water Bill No. 7** – This establishes the National Water Authority (Department of Water Affairs, Rural Water Supply and Sanitation Branch) and the Water Apportionment Board.

There is no dedicated sanitation policy in Swaziland. Sanitation issues are imbedded within the National Environmental Health Policy and a Draft National Water Policy¹⁵⁹ which is based on principles of the National Health and Social Welfare policy in 2000. These are in line with the International Drinking Water Supply and Sanitation Decade 1981 – 1990; Agenda 21 on ‘Health, Environment and Sustainable Development’ in Rio de Janeiro in 1992; ‘Africa 2000 initiative on an international programme for water supply and sanitation’; WHO Regional Meeting of Africa Ministers of Health, Brazzaville in 1993; and the Pretoria Declaration on Health and Environment in Africa in 1997.¹⁶⁰ They also take into account the Water Services Corporation Act No. 12 of 1992, the Water Bill 2000, and the Public Health Act.

Key institutions and their roles in the water and sanitation sector

Swaziland develops sanitation programmes through the Department of Environmental Health of the Ministry of Health and Social Welfare, the Rural Water Supply Branch of the Ministry of Natural Resources and Energy, and NGOs. The parastatal **Swaziland Water Service Corporation** is responsible for urban and peri-urban water supply and sanitation. The **Rural Water Supply Branch** is responsible for water supply and sanitation in rural areas¹⁶¹. One of the major responsibilities of urban councils is public sanitation. The **Ministry of Education** - funds water supplies and sanitation projects for schools.

Major sanitation projects and programmes

- **WaterAid**– To introduce pro-poor, sustainable technologies, particularly in rural areas, and to influence government on prioritising sanitation sector needs, to strengthen and support civil society capacity in technology use and to conduct research on appropriate, accessible water and sanitation technologies for the most vulnerable people, particularly those living with HIV/AIDS, and to influence the water and sanitation sector on how to reach these communities (2009 – ongoing).
- **African Development Bank** – This project will produce a Water Master Plan and has a strong water supply and sanitation component looking to benefit 10 000 people.
- **UNICEF** – The **Water, Environment and Sanitation Programme** (1996 – 2000) with the government aimed towards the provision of safe water, latrine construction and hygiene education in schools, in drought stricken areas (mainly in the Shiselweni and Lubombo regions) of Swaziland.

A number of Non-Governmental Organisations were involved in the schools water supplies and sanitation project e.g. **Lutheran Development Service**¹⁶² and **World Vision**¹⁶³ which runs the Mpolonjeni Water System and Sanitation Project with the Swaziland Water Corporation and the local government to install a water and sanitation system for 10 communities and 23 000 people.

2.13. Tanzania

Background

The United Republic of Tanzania is home to an estimated 42 million people; 74% living in the rural areas and the remainder 26% in urban areas. This is likely to increase as Tanzania is facing high rates of urbanisation^{164,165}. Currently 24% of Tanzanians have access to improved sanitation; with urban areas better served (32%) than rural areas (21%). Despite the fact that there is little disparity between urban and rural areas, the total coverage of improved sanitation remains low and in rural areas 17% of the population still practise open defecation¹⁶⁶.



Key challenges

- Lack of human, technical, fiscal and managerial capacity and community engagement.
- Low levels of education in regard to sanitation and hygiene.
- Low collection levels of waste materials from informal settlements.
- Urban sanitation is faced with high levels of pollution from leaking sanitation systems, poor financial management, and low levels of cost recovery, increasing investment needs, and potential supply shortages¹⁶⁷.
- Backlog of water and sanitation services allocation of resources to the district level including poor compensation for staff and low access to sanitation facilities.
- Since so much authority and responsibility has been devolved to newly created water authorities, a significant amount of capacity building is necessary to impart best management practices.
- Appropriate compensation for staff is also needed so that service providers can attract and retain more technically proficient personnel¹⁶⁸.

Sanitation policies and legislation

2002 - **National Water Policy (NAWAPO)** – is for “integrated and sustainable management, development and use of water resources in Tanzania”. NAWAPO aims to achieve sustainable development through an “efficient use of water resources and efforts to increase the availability of water and sanitation services.” It is guided by the principles of decentralisation and localisation of management and services¹⁶⁹.

2005 - **National Water Sector Development Strategy (NWSDS)** (2005-2015) - sets out how NAWAPO will be implemented and describes the institutional and legislative changes necessary so that the specified actions contained in the NWSDS can be implemented. It aims to facilitate the challenges and constraints that have been observed in the implementation of the NAWAPO and develop a coherent, integrated and holistic strategy by preparing National Rural Water Supply and Sanitation (RWSS) Strategies for investment, programme, improved delivery and reviewing urban sewerage supply legislation¹⁷⁰.

2006 - The **National Water Sector Development Programme** (WSDP) is centred on commercial service provision in urban areas and community ownership and management in rural areas. It sets out to implement demand-driven approaches and promotes integration of water supply and sanitation with hygiene education. It includes institutional development and capacity building; development of comprehensive rural district sanitation plans; and the execution of utility business plans in regional and district capitals and the implementation of national and small towns water schemes. WSDP was formulated to bring NAWAPO into action and to achieve the MDGs. Universal coverage is the target for meeting Tanzania's Development Vision 2025 so a radical improvement of the current operation and maintenance practice is needed if any real level of sustainability is to be achieved¹⁷¹.

2009 - **The Water Supply and Sanitation Act** – for sustainable management and transparent regulations of water supply and sanitation services with a view to give effect to NAWAPO; to provide for the establishment of water supply organisations; to provide for appointment of water and sanitation supply organisations; to provide for appointment of service providers, repeal of the Waterworks Act and to provide for related matters¹⁷².

These policies are in line with Development Vision 2025 and the 2005 National Strategy for Growth and Reduction of Poverty. The Government has adopted a Sector-wide Approach to Planning (SWAP), based on community-demand orientation, decentralised management through local governments and dedicated water user entities or authorities, combined with central government facilitation and delivery of services by the private sector.

Key institutions and their roles in the water and sanitation sector

- The Ministry of Water - national policies and strategy development
- Urban Water Supply and Sewerage Authorities - urban WSS service provider.
- Office of Regional Administration and Local Government -Develops formula based district resource allocation for rural and small town government allocations.
- Regional Water and Sanitation Team - coordinates water and sanitation initiatives including the planning and allocation of resources.
- Regional Secretariats - regional representative of the Ministry of Water.
- Ministry of Health and Social Welfare - some sanitation policy development.
- Ministry of Finance - intra-government funding and fiscal transfers.
- Energy and Water Utility Regulatory Authority—regulates water and sanitation.
- Communities/WATSAN Committees -WSS service provision and promotion and the implementation of small capital projects.¹⁷³

Major sanitation projects and programmes

- **African Development Bank** - Rural water supply and sanitation infrastructure and capacity building development and was one of the primary partners in the development of the new Phase II of the NWSDS¹⁷⁴. The Dar Es Salaam Water Supply & Sanitation project (from 2001) focuses on improving the accessibility, quality and reliability of water supply and sanitation in the capital. Together with other donors, AfDB is contributing to the Rural Water Supply and Sanitation Program aimed at improving rural communities' access to sanitation services and improving institutional capacity - both at district and government level - to carry out demand based rural water and sanitation projects (2001 – ongoing).
- **World Bank** – The WSP programme is active in Tanzania and the Water Sector Support Project (2007 – 2012) aims to providing support to local governments in the scaling up of the provision of rural water and sanitation services and give support to Dar es Salaam, all regional and district capitals, and gazetted small town utilities for scaling up of provision of urban sanitation services and provide support in institutional capacity building. Aside from urban and rural capacity building, reforms, and management streamlining the World Bank is also a development partners in the Phase II of the NWSDS¹⁷⁵.
- **Denmark/DANIDA** – Supports both the African Water Facility and the Rural Water Supply and Sanitation Initiative and water resources management, particularly wetland conservation (2007 – ongoing).
- **Millennium Challenge Corporation (MCC)** - Urban water and sanitation infrastructure rehabilitation.
- **KfW&GiZ** - Institutional and regulatory reform of WSS sector (2004 -2012). KfW funded the Supporting Regional Centre's Water Supply and Sewerage in Mbeya, Mwanza and Iringa which aimed to improve the sanitation and sewerage services by strengthening the capacity of autonomous urban water supply authorities. GTZ develops local capacities in the sector (both in the Ministry and in commercial service providers).
- **WaterAid** – works in close collaboration with local partners and communities, developed innovative low cost hand pump for emptying pit latrines in informal settlements, promoting appropriate pit or composting latrines, awareness campaigns for good sanitation practice. In addition they lobby for schools to have adequate sanitation and seek to promote hygiene education (1983 – ongoing)¹⁷⁶.
- **Network for Water and Sanitation (Netwas)** - to build capacity, support development and management, targeting the poor through networking, information dissemination, training, applied research and community development within the sector, using innovative, participatory and gender sensitive approaches (1986 – ongoing)¹⁷⁷.

- **Tanzania Water and Environmental Sanitation** (TWESA) is a Tanzanian NGO working within WSS and works together with other agencies to increase access to basic water and sanitation services within refugee camps and communities (1997 – ongoing)¹⁷⁸.
- **TaWaSaNet** - a network that aims at strengthening civil society participation in the water and sanitation and securing that policy is carried out in an equitable way (2007 – ongoing).
- **European Commission** - provides support to poor populations in urban and peri-urban areas. The Water Supply Programme to Regional Centres (with **GTZ**) aimed to improve the access to sustainable quality water supply and wastewater management services in the three regional centres of Mwanza, Iringa and Mbeya. Also the Mwanza Sewerage Rehabilitation Project to prevent the overflow of raw sewage from Mwanza to Lake Victoria. Rural sanitation is supported through the EU general budget line for co-financing NGOs in developing countries (2000 – ongoing).

2.14. Zambia

Background

Zambia is home to nearly 14 million people; the majority (64%) leading a rural existence¹⁷⁹. Access to improved sanitation for all Zambians (49%) is, like most parts of Sub-Saharan Africa greater in urban areas (59%) than rural areas (43%)¹⁸⁰. Whereas the Government has developed progressive reform policies and strategies for meeting the MDG goals, robust commitments to sector policies, increased financing for water and sanitation infrastructure, and better coordination amongst stakeholders are critical to maintaining current coverage rates.



Key challenges

- A critical lack of funding means Zambia is unlikely to meet its MDGs. Implementation of a clearer cost recovery policy may be required to maintain rural sanitation service growth and monitoring and evaluation lag behind that of urban areas. A deliberate investment policy is needed to address deficits in infrastructure development.
- Current policy does not take into account the need to strengthening participation and accountability.
- Needs to address the disparity between urban and rural sanitation supply.
- Education regarding hygiene and sanitation practices could be improved.
- Dependence on pit latrines (often poorly sited, constructed and maintained) is leading to groundwater contamination and with inadequate drainage causes widespread outbreaks of cholera¹⁸¹.
- There is a critical need for investments in human resource development as change is slow due to capacity shortages.
- Financial viability is continuing to improve but is adversely affected by the non payment for services by government institutions.
- Institutional separation between water resource management and regulatory functions need to be completed.
- Local service providers need the authority and financing to carry out sanitation duties.

Sanitation policies and legislation

1994 - **National Water Policy** - Called for the separation of water resource management from water and sanitation supply; the separation of regulatory and executive functions within the water supply and sanitation sector; the devolution of authority to local authorities and private enterprises; and full cost recovery in the long run.

1997 - **Zambia's Water Supply and Sanitation Act**- Provide for the establishment of water supply and sanitation utilities by local authorities and provide an efficient and sustainable supply of water and sanitation services. This is outdated and under review as it does not take into account issues such as decentralisation, environmental resources and sustainability and the need to strengthening participation and accountability.

1996 - **Water, Sanitation, and Health Education (WASHE) policy** - The Zambian government implemented WASHE concept in rural areas to better incorporate affected populations into system planning and development and thus to improve the delivery of WSS services. The WASHE policy is put into practice by district committees called D-WASHE.

2005 - **National Rural Water Supply and Sanitation Program (NRWSSP 2006 - 2015)** - It contains both a detailed investment plan and coordinating framework. The **Water Resources Action Plan** introduced by the Ministry of Water and Energy clearly defines and separates water resource supply and sanitation supply. It gives the Ministry of Local Government and Housing the mandate for sanitation, while water supply will fall under the Ministry of Water and Energy.

2011 - **Water Resources Management Bill** – Currently waiting to be passed by Cabinet and Parliament so water can be managed in an integrated way.

Key institutions and their roles in the water and sanitation sector

Responsibilities are clearly separated between the Ministry of Local Government and Housing (policy), National Water Supply and Sanitation Council (economic regulation) and local government as well as commercial utilities (CU) owned by local government (service provision in urban and peri-urban areas). These commercial utilities provide more local control and have improved the quality of service, but coverage and financial viability remain low. They are expected to be financially self-sufficient but cost recovery has remained elusive.

As a consequence Zambia has created the Devolution Trust Fund (for financial support to the Commercial Utilities – CU - to enable them to reach poor populations and growing peri-urban areas) and the Zambia Social Investment Fund (ZamSIF). The Lusaka Water Company has initiated a sanitation surcharge to enable extension of a piped wastewater collection system. In rural areas all sanitation is run by decentralised WASHE committees under Zambia's new institutional framework.

In 2000 the National Water Supply and Sanitation Council (NWASCO) was formed to regulate water providers for efficiency and sustainability of water supply and sanitation service provision as required by the Act 1997. NWASCO advises CUs on appropriate and affordable ways to improve sanitation service¹⁸². District WASHE (D-WASHE) committees relinquish responsibilities to community-based WASHE committees and commercial utilities. Continued support of these efforts will provide the foundation to further decentralize and increase self-sufficiency¹⁸³.

Major sanitation projects and programmes

- **African Development Bank** - Urban WSS service delivery projects in the central province including establishment of a CU and RWSS service delivery in Central province including strengthening of D-WASHE committees.
- **Danish International Development Agency (DANIDA)** - Supports RWSS management information system and knowledge and resource framework, urban and peri-urban WSS

Service delivery for low-cost housing areas and integrated Water Resources Management (2004 – ongoing).

- **GiZ** - RWSS decentralization and service delivery in Southern Province and leads donor coordination in WSS group.
- **KfW (German Development Bank)** - Urban WSS service delivery, rural WSS in the Southern Province and support to NWASCO and the Devolution Trust Fund (DTF).
- **Irish Aid** - Urban WSS service in the Northern Province, support to RWSSU and the DTF, prioritization and planning in WSS sector and capacity building & institutional strengthening for RWSS through WASHE framework.
- **Japan International Cooperation Agency** - Peri-urban water supply service delivery through community-based schemes, groundwater development via borehole drilling and linkages with public health (2007 – ongoing).
- **Netherlands Development Corporation** - Peri-urban and rural WSS capacity building and institutional strengthening through hygiene education at catchment level, and targeting gender issues.
- The **World Bank** - Improvements to the Copperbelt CUs to attract private investments led to improved urban WSS, sector-wide policy making capacity in the MEWS and MLGH, legislative, regulatory and institutional reform related to decentralization, water resource management in Kafue Basin and support to Social Investment Fund for Zambia (ZamSIF) (2006 – ongoing).
- **Water and Sanitation Program, Africa** - RWSS sector programming, policy development and streamlining, sanitation marketing and community-based water and sanitation delivery schemes in poor urban areas and support to Ministry of Local Government and Housing in development of MDG roadmaps, prioritization and planning
- **UNICEF** - RWSS service in drought & refugee affected areas and financing D-WASHE activities for improved hygiene in schools (2011-2015).
- **Canadian International Development Agency (CIDA)** – Achieved, through the Project for Africa Water Development, an Integrated Water Resource Management (IWRM) and efficiency plan for Zambia.

2.15. Zimbabwe

Background

Zimbabwe is home to over 12 million people (38% live in urban centres)¹⁸⁴. The country is undergoing a prolonged period of political, social and economic unrest. There is also increasing pressure on sanitation systems due to urbanisation compounded with existing backlogs. This means Zimbabwe's water supply and sanitation services have suffered a major collapse of coverage and quality in both urban and rural areas¹⁸⁵. A country wide cholera outbreak in 2008 resulted in over 100 000 cholera cases. Currently only 44% of Zimbabweans have access to improved sanitation, better in urban areas (56%) than in rural areas (37%)¹⁸⁶. Such figures indicate that without increased investment in sanitation services, infrastructure and capacity Zimbabwe is unlikely to meet its water and sanitation Millennium Development Goals.



Key challenges

- Large backlog in sanitation infrastructure.
- Lack of financial, technical and human capacity.
- Low levels of maintenance within the sector.
- Poor governance and lack of coordination within the sector.
- Poor service delivery.
- Low levels of education and awareness in regard to health and hygiene practices.
- Frequent outbreaks of water borne and sanitation related diseases.
- Lack of community engagement.
- Lack of transparency.

Sanitation policies and legislation

1985 - **National Master Plan for Rural Water Supply and Sanitation (NMP)** - Aimed to supply the entire communal and resettlement area populations with 1) 100% access to safe drinking water within 500m of their house and 2) 100% of households to have (at least) a Blair latrine/pit toilet by 2005.

1987 - **Integrated Rural Water Supply and Sanitation Programme (IRWSSP)** – This came from reviews of the 1985 NMP and aimed for improved access to safe water and sanitation in communal, peri-urban and resettlement areas. The general objectives were to improve health conditions and quality of life for the poor and unserved populations. IRWSSP is built on the principle of integrating the development of water and sanitation facilities together with the promotion of health and hygiene education, training and capacity building, community mobilization, establishment of sustainable operation and maintenance systems, and transfer of knowledge to user communities.

2004 - **Domestic Water Supply and Sanitation Policy** – This was developed by the National Advisory Commission but was never ratified due to the political situation. The policy is currently under review.

2008 - **Draft National Strategy for Sanitation** (2009-2013) – Zimbabwe’s contribution toward the International Year of Sanitation¹⁸⁷.

Key institutions and their roles in the water and sanitation sector

The newly established National Hygiene and Sanitation Task Force (2010) or Zimbabwe WASH Coalition, is chaired by the Ministry of Health and Child Welfare and composed of relevant ministries, NGO partners, UNICEF, and the media. The NSTF reports to the National Action Committee (NAC) which provides overall leadership in WASH and replaces the National Action Committee on Water and Sanitation.

Major sanitation projects and programmes

The wide range of stakeholders currently involved in Zimbabwe’s water and sanitation sector including civil society, private sector, governmental and development partners. In addition there are local level partners such as NGO’s and community based organizations. Many of the organisations collaborate: the European Union Water Facility (EU-WF) and UNICEF Zimbabwe have co-financed rural water supply and sanitation projects in the country. Such cross-sectoral and agency partnerships appear to be crucial to Zimbabwe’s progress. Much of the funding for sanitation was withheld when Zimbabwe’s situation deteriorated in 2001 and only in the past few years have funding agencies been willing to support projects in Zimbabwe again.

- **UNICEF** – Funds the provision of emergency water, sanitation and hygiene assistance to vulnerable populations in cholera-affected areas in addition to support of local NGOs (2007 – ongoing).¹⁸⁸
- **World Bank** – The Beitbridge Emergency Water Supply and Sanitation Project has been developed as Beitbridge is regarded as the busiest border post in Zimbabwe and perhaps in the SADC region and is expanding rapidly without adequate sanitation and was responsible for over a quarter of cholera cases during the 2008/08 outbreak. The project is expected to have significant impact on improving health in Beitbridge as well as building institutions at the local level (2010 – ongoing).¹⁸⁹
- **AusAID** – Is investing in infrastructure projects in Zimbabwe to improve access to clean water and effective sanitation services in smaller cities, towns and market centres and also collaborates with regional projects such as the World Bank WSP projects (2009-2010).¹⁹⁰
- **Zimbabwe’s Water, Sanitation and Hygiene (ZIMWASH)** - Has partnered up with different water and sanitation sector players in an effort to address the water and sanitation needs of the rural poor in Zimbabwe. Partners include organizations such as UNICEF Zimbabwe, Mvuramanzi Trust, Institute of Water and Sanitation Development (IWSD), National Action Committee (NAC) for Rural Water Supply and Sanitation and the IRC International Water and Sanitation Centre (2006 – ongoing).
- **African Development Bank** – Urgent Water Supply and Sanitation Rehabilitation Project which will support urgent rehabilitation works; restoration and stabilization of

water supply and sanitation services in the Municipalities of Harare, Chitungwiza, Mutare, Chegutu, Masvingo and Kwekwe. This was identified for financing from the Zimbabwe Multi-Donor Trust Fund. AfDB launched the Zim-Fund in 2011, as a successor to the Programmatic Multi-Donor Trust Fund (2009 – ongoing).¹⁹¹

- **Africare Zimbabwe** – Has successfully implemented water and sanitation projects funded a host of partners that include UNICEF, the African Wells Fund, USAID/OFDA and from individuals targeting communities in Manicaland and Matabeleland provinces. Africare has successfully implemented a water and sanitation project in Gokwe South District reaching 6 500 people and is currently implementing a sanitation project in 16 wards of Buhera where the organization is scaling up prevention of cholera through participatory health and hygiene promotion and the rehabilitation of 40 boreholes (1981 – ongoing).¹⁹²
- **Association for Applied Health Education and Development (AHEAD)** - Uses the Community Health Club approach which has proved sustainable in the face of Zimbabwe's political and economic situation (1995 – ongoing).¹⁹³

References

- ¹JMP 2010. Progress on Sanitation and Drinking-water: 2010 Update. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. http://www.unwater.org/downloads/JMP_report_2010.pdf (Accessed 29.03.2011).
- ²MDG 2010. Assessing Progress in Africa toward the Millennium Development Goals 2010. African Development Bank. Denmark (Jones, S. ed.) www.uneca.org/mdgreports/2010/2010MDGR.pdf (Accessed 29.03.2011).
- ³UNEP 2010. Africa Water Atlas. Division of Early Warning and Assessment (DEWA). United Nations Environment Programme (UNEP). Nairobi, Kenya. na.unep.net/atlas/africaWater/book.php (Accessed 10.04.2011).
- ⁴HSRC 2011. Decisive action to achieve the Millennium Development Goals. www.hsrb.ac.za/Document-3975.phtml (Accessed 10.04.2011).
- ⁵<http://www.mdgmonitor.org/>
- ⁶<http://www.unsgab.org/news/110621.htm>.
- ⁷HRH Prince of Orange. 2011. World Water Day Op Ed. http://www.unwater.org/worldwaterday/download/wwd2011_oped.pdf. (Accessed 10.03.2011)
- ⁸UN-Water/Africa 2000. African Water Vision 2025. Economic Commission for Africa (ECA), African Union (AU) and African Development Bank (ADB). www.uneca.org/awich/African%20Water%20Vision%202025.pdf (Accessed 10.04.2011).
- ⁹AMCOW 2010. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).
- ¹⁰AMCOW 2010. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).
- ¹¹AMCOW 2010. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).
- ¹²SADC 2010. SADC Regional Water Supply and Sanitation Programme. <http://www.sadc.int/index/browse/page/807> (Accessed 10.04.2011).
- ¹³AMCOW 2010. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).
- ¹⁴ENB. 2003. Earth Negotiations Bulletin: Summary of the Pan African Implementation and Partnership Conference on Water Vol 5 No. 200. <http://www.iisd.ca/vol05/enb05200e.html>. (Accessed 15.08.11)

-
- ¹⁵2008. Assembly of the African Union: Decisions, Declarations, Tribute and Resolutions. Sharm El-Sheikh Commitments for Accelerating Achievement of Water and Sanitation Goals in Africa.http://www.dwaf.gov.za/dir_ws/2aww/docs/Sharm_El-Sheikh_Decisions_English%5B1%5D.pdf (Accessed on 15.08.11)
- ¹⁶AMCOW 2010
- ¹⁷2008. eThekwini Declaration and AfricaSan+5 Action Plan.
<http://www.africasan3.com/Images/eThekwiniAfricaSan.pdf>. (Accessed 15.08.11)
- ¹⁸AMCOW 2010. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).
- ¹⁹EU 2008. African EU Declaration on climate change.
<http://ec.europa.eu/development/icenter/repository.pdf> (Accessed 10.04.2011).
- ²⁰2009. Union Specialised Technical Committee on Water and Sanitation: Johannesburg Ministerial Statement.
http://www.irha-h2o.org/files/newsletters/attachments/n28/1_Ministerial_Statement.pdf (Accessed on 15.08.11)
- ²¹2008. Assembly of the African Union: Decisions, Declarations, Tribute and Resolutions. Sharm El-Sheikh Commitments for Accelerating Achievement of Water and Sanitation Goals in Africa.http://www.dwaf.gov.za/dir_ws/2aww/docs/Sharm_El-Sheikh_Decisions_English%5B1%5D.pdf (Accessed on 15.08.11)
- ²²2009. Union Specialised Technical Committee on Water and Sanitation: Johannesburg Ministerial Statement.
http://www.irha-h2o.org/files/newsletters/attachments/n28/1_Ministerial_Statement.pdf (Accessed on 15.08.11)
- ²³2009. Union Specialised Technical Committee on Water and Sanitation: Johannesburg Ministerial Statement.
http://www.irha-h2o.org/files/newsletters/attachments/n28/1_Ministerial_Statement.pdf (Accessed on 15.08.11)
- ²⁴2011. Draft Statement for AfricaSan 3.
<http://www.africasan3.com/Images/AfricaSan%203%20Conference%20Statement%20English%203.pdf>. (Accessed on 15.08.11)
- ²⁵2011. Draft Statement for AfricaSan 3.
<http://www.africasan3.com/Images/AfricaSan%203%20Conference%20Statement%20English%203.pdf>. (Accessed on 15.08.11)
- ²⁶2011. Draft Statement for AfricaSan 3.
<http://www.africasan3.com/Images/AfricaSan%203%20Conference%20Statement%20English%203.pdf>. (Accessed on 15.08.11)
- ²⁷UNEP 2010. Africa Water Atlas. Division of Early Warning and Assessment (DEWA). United Nations Environment Programme (UNEP). Nairobi, Kenya. na.unep.net/atlas/africaWater/book.php (Accessed 10.04.2011).

-
- ²⁸UNEP 2010.Africa Water Atlas.Division of Early Warning and Assessment (DEWA). United Nations Environment Programme (UNEP). Nairobi, Kenya. na.unep.net/atlas/africaWater/book.php (Accessed 10.04.2011).
- ²⁹UNEP 2010.Africa Water Atlas.Division of Early Warning and Assessment (DEWA). United Nations Environment Programme (UNEP). Nairobi, Kenya. na.unep.net/atlas/africaWater/book.php (Accessed 10.04.2011).
- ³⁰UNEP 2010.Africa Water Atlas.Division of Early Warning and Assessment (DEWA). United Nations Environment Programme (UNEP). Nairobi, Kenya. na.unep.net/atlas/africaWater/book.php (Accessed 10.04.2011).
- ³¹WEDC 2005.Comparing National Sanitation Policy Content - An initial review of nine country profiles.Briefing Note.DFID. www.dfid.gov.uk > Home > Projects and Programmes (Accessed 11.04.2011).
- ³²AMCOW 2010.An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).
- ³³GPPN 2009. Water and Sanitation in Africa: Obstacles, Constraints and Next Steps for the Commission on Sustainable Development. Global Public Policy Network on Water Management.[www.stakeholderforum.org/.../Water and Sanitation in Africa - Obstacles Constraints and Next Steps.pdf](http://www.stakeholderforum.org/.../Water_and_Sanitation_in_Africa_-_Obstacles_Constraints_and_Next_Steps.pdf). (Accessed 11.04.2011).
- ³⁴UNEP 2010.Africa Water Atlas.Division of Early Warning and Assessment (DEWA). United Nations Environment Programme (UNEP). Nairobi, Kenya. na.unep.net/atlas/africaWater/book.php (Accessed 10.04.2011).
- ³⁵JPPN 2009. Water and Sanitation in Africa: Obstacles, Constraints and Next Steps for the Commission on Sustainable Development. Global Public Policy Network on Water Management.[www.stakeholderforum.org/.../Water and Sanitation in Africa - Obstacles Constraints and Next Steps.pdf](http://www.stakeholderforum.org/.../Water_and_Sanitation_in_Africa_-_Obstacles_Constraints_and_Next_Steps.pdf). (Accessed 11.04.2011).
- ³⁶Soon, H. 2003.Policy Constraints in Advocating Ecological Sanitation Systems in Developing Countries Case of biogas recovery from blackwater in Kuching, Sarawak of Malaysia.Thesis.<http://lup.lub.lu.se/luur/download?func=downloadFile&recordId=1324947&fileId=1324948>. (Accessed 29.03.2011).
- ³⁷UNAID 2010. ANGOLA - Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO925.pdf (Accessed 29.03.2011).
- ³⁸JMP 2010. Progress on Sanitation and Drinking-water: 2010 Update. WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. http://www.unwater.org/downloads/JMP_report_2010.pdf (Accessed 29.03.2011).
- ³⁹JMP-Ang 2010.Angola. http://www.wssinfo.org/fileadmin/user_upload/resources/AGO_san.pdf. (Accessed 04.03.2011).
- ⁴⁰JMP-Ang 2010.Angola. http://www.wssinfo.org/fileadmin/user_upload/resources/AGO_san.pdf. (Accessed 04.03.2011).

-
- ⁴¹UNAID 2010. ANGOLA - Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO925.pdf (Accessed 29.03.2011).
- ⁴²UNAID 2010. ANGOLA - Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO925.pdf (Accessed 29.03.2011).
- ⁴³World Bank 2008. Water Sector Institutional Development. <http://web.worldbank.org/external/projects/main?Projectid=P096360&theSitePK=40941&piPK=73230&pagePK=64283627&menuPK=228424>. (Accessed on 23.02.2011).
- ⁴⁴UNDP 2010. Angola: Urban and peri-urban water and sanitation joint programme management. <http://www.evd.nl/zoeken/showbouwsteen.asp?bstnum=289871&location=&highlight>. (Accessed 03.04.2011).
- ⁴⁵MDG 2004. Botswana from Independence to Vision 2016. www.sarpn.org.za/documents/.../Botswana_MDG_Report2004_8.pdf. (Accessed 08.04.2011).
- ⁴⁶UNICEF. 2004. Botswana. http://www.nationmaster.com/graph/hea_of_pop_usi_ade_san_fac_tot-using-adequate-sanitation-facilities-total. (Accessed 08.04.2011).
- ⁴⁷JMP-Bot 2010. Botswana. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ⁴⁸CAR 2005. Draft Botswana country water report, prepared for UN ECA as part of the preparation of the African water development Report,. Centre for Applied Research. 47pp. <http://www.car.org.bw/Documents/Botswana%20water%20report%20UNECA%20draft%20final%20subm.pdf>. (Accessed 08.04.2011).
- ⁴⁹Masamba W.R.L. 2009. Transboundary Diagnostic Analysis of the Botswana Portion of the Okavango River Basin: Output 4: Water Supply and Sanitation. iwlearn.net/.../botswana.../transboundary-diagnostic-analysis-of-the-botswana-portion-of-the-okavango-river-basin-output-4-water-supply-and-sanitation. (Accessed 08.04.2011).
- ⁵⁰UNDP 2008. Mapping of Integrity and Accountability in Water Activities and Relevant Capacities in the SADC-Region. Earle, A. Lungu, G. and D. Malzbender. Paper 12. Cap-Net. <http://www.siwi.org/documents/Resources/Papers/Paper-12-SADC.pdf>. (Accessed 08.04.2011).
- ⁵¹EU 2006. EU. 2006. Technical Cooperation Facility Programme (9 ACP BT 003) Country Environmental Profile of The Republic Of Botswana. Final Report July 2006. www.delbwa.ec.europa.eu/HOME_PAGE/Botswana_CEP.pdf. (Accessed 06.04.2011).
- ⁵²<http://www.unsgab.org/news/110621.htm>.
- ⁵³WashWatch 2010. Botswana. <http://www.washwatch.org/southern-africa/botswana>. (Accessed 06.04.2011).
- ⁵⁴WHO. 2000. PHAST Initiative. http://www.who.int/water_sanitation_health/hygiene/envsan/EOS96-11a.pdf. (Accessed 07.04.2011).
- ⁵⁵IUCN 2003. Proceedings of an Awareness Raising Workshop on Ecological Sanitation. IUCN Botswana, CBNRM-Missing Link project. www.sansed.uni-bonn.de/.../en-ecosan-capacity-building-material-2006.pdf. (Accessed 07.04.2011).

-
- ⁵⁶USAID-DRC 2010.Democratic Republic of the Congo Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO929.pdf. (Accessed 07.04.2011).
- ⁵⁷JMP-DRC 2010.Democratic Republic of Congo. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ⁵⁸WSP 2009.Building Partnerships for Sustainable Water and Sanitation Services in Africa - Lessons from collaborative initiatives by the World Bank, African Development Bank and the Water and Sanitation Program. <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents>. (Accessed 12.04.2011).
- ⁵⁹USAID-DRC 2010.Democratic Republic of the Congo Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO929.pdf. (Accessed 07.04.2011).
- ⁶⁰Tearfund 2007. Sanitation and hygiene in developing countries: A case study from the Democratic Republic of Congo identifying and responding to barriers. www.odi.org.uk/resources/download/3062.pdf. (Accessed 07.04.2011).
- ⁶¹ANEW 2009.Analysis of Water and Sanitation Policies and Status of IWRM in Africa & Advocacy capacity assessment of African civil society on water supply and sanitation.Final Report.African Civil Society Network on Water and Sanitation.[www.anewafrika.net/Files/capacity assesment report full.pdf](http://www.anewafrika.net/Files/capacity_assesment_report_full.pdf). (Accessed 07.04.2011).
- ⁶²UNEP 2011.Water Issues in the Democratic Republic of the Congo - Challenges and Opportunities.Technical Report.United Nations Environment Programme. pp98. allafrica.com/.../00020704:a0025f26449f2ed3a4864fd59ca72ec8.pdf. (Accessed 07.04.2011).
- ⁶³WSP 2010. web.mit.edu/urbanupgrading/waterandsanitation/.../tools.html. (Accessed 07.04.2011).
- ⁶⁴USAID-DRC 2010.Democratic Republic of the Congo Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO929.pdf. (Accessed 07.04.2011).
- ⁶⁵WSP 2002. The National Sanitation Programme in Lesotho: How Political Leadership Achieved Long-Term Results. www.wsp.org/wsp/sites/wsp.org/files/.../af_bg_lesotho.pdf. (Accessed 07.04.2011).
- ⁶⁶JMP-Lesotho 2010. Lesotho. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ⁶⁷BPD 2010.Sanitation Partnerships – Maseru.Building Partnerships for Development in Water and Sanitation.www.bpdws.org/web/w/www_41_en.aspx. (Accessed 08.04.2011).
- ⁶⁸National Report 2007.Ministry of Natural Resources.Lesotho water and sanitation Policy. portal.unesco.org/.../ev.php-URL_ID=47377&URL_DO=DO_TOPIC&URL_SECTION=201.html. (Accessed 07.04.2011).
- ⁶⁹WSP 2002. The National Sanitation Programme in Lesotho: How Political Leadership Achieved Long-Term Results. www.wsp.org/wsp/sites/wsp.org/files/.../af_bg_lesotho.pdf. (Accessed 07.04.2011)
- ⁷⁰EC 2010.Kingdom of Lesotho European Community Country Strategy Paper and Indicative Programme for the period 2001 – 2007. c.europa.eu/development/icenter/repository/print_ls_csp_en.pdf. (Accessed 07.04.2011).

-
- ⁷¹UNAID – Madagascar 2009. Madagascar Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO933.pdf. (Accessed 08.04.2011).
- ⁷²ODI 2007. Sanitation and hygiene in developing countries: A case study from Madagascar identifying and responding to barriers. www.odi.org.uk/resources/download/3061.pdf. (Accessed 08.04.2011).
- ⁷³JMP-Mada 2010. Madagascar. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ⁷⁴AfDB 2005. Madagascar - Rural drinking water supply and sanitation programme appraisal report. www.afdb.org/.../MG-2005-138-EN-ADF-BD-WP-MADAGASCAR-RURAL-WATER-SUPPLY-AND-SANITATION-PROGRAMME.PDF. (Accessed 08.04.2011).
- ⁷⁵UNAID – Madagascar 2009. Madagascar Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO933.pdf. (Accessed 08.04.2011).
- ⁷⁶UNAID – Madagascar 2009. Madagascar Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO933.pdf. (Accessed 08.04.2011).
- ⁷⁷ODI 2007. Sanitation and hygiene in developing countries: A case study from Madagascar identifying and responding to barriers. www.odi.org.uk/resources/download/3061.pdf. (Accessed 08.04.2011).
- ⁷⁸WashWatch. (no date). Sanitation Policy (Monitoring the eThekwini declaration). www.washwatch.org/southern-africa/madagascar. (Accessed 08.04.2011).
- ⁷⁹Gov 1999. Loi N° 98 – 029 portant Code de l’Eau http://www.mineau.gov.mg/telecharger/code_eau.pdf. (Accessed 08.04.2011).
- ⁸⁰OECD 2008. Madagascar. www.oecd.org/dataoecd/13/11/40578194.pdf. (Accessed 08.04.2011).
- ⁸¹WSSCC 2010: <http://www.wsscc.org/countries/africa/madagascar/wash-coalition-overview>
- ⁸²WaterAid-Mada 2008. WaterAid's plans in Madagascar: 2005-2010. www.wateraid.org/uk/what_we_do/where.../madagascar/3256.asp. (Accessed 08.04.2011).
- ⁸³Manda M.A.Z. 2009. Water and sanitation in urban Malawi: Can the Millennium Development Goals be met? A study of informal settlements in three cities. IIED Human Settlements Working Paper Series Theme: Water – 7. pubs.iied.org/pubs/pdfs/10569IIED.pdf. (Accessed 08.04.2011).
- ⁸⁴JMP-Malawi 2010. Malawi. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ⁸⁵Manda, M.A.Z. 2009. Water and sanitation in urban Malawi: Can the Millennium Development Goals be met? A study of informal settlements in three cities. IIED Human Settlements Working Paper Series Theme: Water – 7. pubs.iied.org/pubs/pdfs/10569IIED.pdf. (Accessed 08.04.2011).
- ⁸⁶OECD-Malawi 2008. Malawi. www.oecd.org/dataoecd/13/10/40578230.pdf. (Accessed 08.04.2011).
- ⁸⁷USAID-Malawi 2009. Malawi Water and Sanitation Profile. http://pdf.usaid.gov/pdf_docs/PNADO934.pdf. (Accessed 08.04.2011).

-
- ⁸⁸Manda M.A.Z. 2009. Water and sanitation in urban Malawi: Can the Millennium Development Goals be met? A study of informal settlements in three cities. IIED Human Settlements Working Paper Series Theme: Water – 7. pubs.iied.org/pubs/pdfs/10569IIED.pdf. (Accessed 08.04.2011).
- ⁸⁹USAID-Malawi 2009. Malawi Water and Sanitation Profile. http://pdf.usaid.gov/pdf_docs/PNADO934.pdf. (Accessed 08.04.2011).
- ⁹⁰OECD-Malawi 2008. Malawi. www.oecd.org/dataoecd/13/10/40578230.pdf. (Accessed 08.04.2011).
- ⁹¹Manda 2009.M.A.Z. 2009. Water and sanitation in urban Malawi: Can the Millennium Development Goals be met? A study of informal settlements in three cities. IIED Human Settlements Working Paper Series Theme: Water – 7. pubs.iied.org/pubs/pdfs/10569IIED.pdf. (Accessed 08.04.2011).
- ⁹²Manda2009.M.A.Z. 2009. Water and sanitation in urban Malawi: Can the Millennium Development Goals be met? A study of informal settlements in three cities. IIED Human Settlements Working Paper Series Theme: Water – 7. pubs.iied.org/pubs/pdfs/10569IIED.pdf. (Accessed 08.04.2011).
- ⁹³Manda 2009.M.A.Z. 2009. Water and sanitation in urban Malawi: Can the Millennium Development Goals be met? A study of informal settlements in three cities. IIED Human Settlements Working Paper Series Theme: Water – 7. pubs.iied.org/pubs/pdfs/10569IIED.pdf. (Accessed 08.04.2011).
- ⁹⁴USAID-Malawi 2009. Malawi Water and Sanitation Profile. http://pdf.usaid.gov/pdf_docs/PNADO934.pdf. (Accessed 08.04.2011).
- ⁹⁵JMP-Mauritius 2010. Mauritius. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ⁹⁶AfDB 2009. Mauritius wastewater master plan study - Request for technical assistance fund for middle income countries. www.afdb.org/fileadmin/uploads/.../AR%20En%20Mauri01.pdf (Accessed 07.04.2011).
- ⁹⁷Bagwan 2004. Reuse of effluent for irrigation and to safeguard lagoon water quality in the Grand Bay area. Ministry of Environment and National Development Unit - Republic of Mauritius. www.unep.org/gc/gcss-viii/Mauritius_sanitation.pdf. (Accessed 07.04.2011).
- ⁹⁸Ganoo 2003. Policy Statement on the Occasion - Joint Donor's Meeting on Macroeconomic Policy and Budgetary Support. www.gov.mu/portal/goc/mpu/file/jdm.doc. (Accessed 07.04.2011).
- ⁹⁹SAN 2004. Sanitation country profile – MAURITIUS. www.un.org/esa/agenda21/.../SANITATIONMAURITUS04F.pdf. (Accessed 07.04.2011).
- ¹⁰⁰AfDB 2010. Activities in the Water and Sanitation Sector in the Republic of Mauritius – August 2010. www.afdb.org/.../5_AfDB_watsan_MAURITIUS_August_2010_8_Oct.pdf. (Accessed 07.04.2011).
- ¹⁰¹JMP-Moz 2010. Mozambique. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ¹⁰²UNAID-Moz 2009. Mozambique Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO935.pdf. (Accessed 07.04.2011).

-
- ¹⁰³UNAID-Moz 2009.Mozambique Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO935.pdf. (Accessed 07.04.2011).
- ¹⁰⁴UNAID-Moz 2009.Mozambique Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO935.pdf. (Accessed 07.04.2011).
- ¹⁰⁵OECD-Moz 2008. Mozambique. African Economic Outlook.www.oecd.org/dataoecd/13/6/40578303.pdf. (Accessed 07.04.2011).
- ¹⁰⁶MAWF-I 2009.Water supply and sanitation policy.Ministry of Agriculture, Water and Forestry. portal.unesco.org/.../ev.php-URL_ID=47370&URL_DO=DO_TOPIC&URL_SECTION=201.html. (Accessed 07.04.2011).
- ¹⁰⁷JMP-Nam 2010. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ¹⁰⁸MAWF-I 2009.Water supply and sanitation policy.Ministry of Agriculture, Water and Forestry. portal.unesco.org/.../ev.php-URL_ID=47370&URL_DO=DO_TOPIC&URL_SECTION=201.html. (Accessed 07.04.2011).
- ¹⁰⁹MAWF-I 2009.Water supply and sanitation policy.Ministry of Agriculture, Water and Forestry. portal.unesco.org/.../ev.php-URL_ID=47370&URL_DO=DO_TOPIC&URL_SECTION=201.html. (Accessed 07.04.2011).
- ¹¹⁰MAWF-I 2009.Water supply and sanitation policy.Ministry of Agriculture, Water and Forestry. portal.unesco.org/.../ev.php-URL_ID=47370&URL_DO=DO_TOPIC&URL_SECTION=201.html. (Accessed 07.04.2011).
- ¹¹¹MAWF-II 2009. Namibia National Sanitation Strategy 2010/11 – 2014/15 www.mawf.gov.na/Documents/Sanitation%20strategy.pdf. (Accessed 07.04.2011).
- ¹¹²MAWF-I 2009.Water supply and sanitation policy.Ministry of Agriculture, Water and Forestry. portal.unesco.org/.../ev.php-URL_ID=47370&URL_DO=DO_TOPIC&URL_SECTION=201.html. (Accessed 07.04.2011).
- ¹¹³MAWF 2009.Namibia National Sanitation Strategy 2010/11 – 2014/15.<http://www.mawf.gov.na/Documents/Sanitation%20strategy.pdf>. (Accessed 07.04.2011).
- ¹¹⁴Soderstrom 2003.Donor involvement in the water sector in the SADC region.www.africanwater.org/donor_involvementSADC.htm. (Accessed 07.04.2011).
- ¹¹⁵UNDP-GEF. 2006. Facilitating mass production of local produced dry-toilet system. http://sgp.undp.org/web/projects/11935/facilitating_mass_production_of_local_produced_dry_%E2%80%93toilet_system.html. (Accessed 08.04.2011).
- ¹¹⁶SADC. 2010. Water Supply and Sanitation Project for the Rural Communities in North Namibia. <http://www.icp-confluence-sadc.org/projects/water-supply-and-sanitation-project-rural-communities-north-namibia>. (Accessed 08.04.2011).
- ¹¹⁷Red Cross 2010.Health and Care.<http://www.redcross.org.na/Default.aspx>.(Accessed 08.04.2011).

¹¹⁸EC 2007. Country Strategy Paper and National Indicative Programme for 2008 – 2013. Republic of Seychelles-European Community. pp82. ec.europa.eu/development/icenter/repository/summary_sc_csp10_en.pdf (Accessed 08.04.2011).

¹¹⁹NAR 2010 National Assessment Report Republic of Seychelles (2004 – 2009). 5-Year Review of Progress Made in Addressing Vulnerabilities of SIDS through Implementation of the Mauritius Strategy for Further Implementation (MSI). of the Barbados Programme of Action (BPOA). 5-Year Review of Progress Made in Addressing Vulnerabilities of SIDS through Implementation of the Mauritius Strategy for Further Implementation (MSI) of the Barbados Programme of Action (BPOA). Ed. M. P. Martin , H. Barois and A. Jean-Louis . pp36. www.sidsnet.org/msi_5/docs/nars/.../Seychelles-MSI-NAR2010.pdf (Accessed 08.04.2011).

¹²⁰JMP-Seychelles 2010. WHO / UNICEF- Seychelles: Estimates for the use of Improved Sanitation Facilities. <http://www.wssinfo.org/documents-links/documents/>. (Accessed 08.04.2011).

¹²¹NAR 2010 National Assessment Report Republic of Seychelles (2004 – 2009). 5-Year Review of Progress Made in Addressing Vulnerabilities of SIDS through Implementation of the Mauritius Strategy for Further Implementation (MSI). of the Barbados Programme of Action (BPOA). 5-Year Review of Progress Made in Addressing Vulnerabilities of SIDS through Implementation of the Mauritius Strategy for Further Implementation (MSI). of the Barbados Programme of Action (BPOA). Ed. M. P. Martin , H. Barois and A. Jean-Louis . pp36. www.sidsnet.org/msi_5/docs/nars/.../Seychelles-MSI-NAR2010.pdf (Accessed 08.04.2011).

¹²²EC 2007 Country Strategy Paper and National Indicative Programme for 2008 – 2013. Republic of Seychelles-European Community. pp82. ec.europa.eu/development/icenter/repository/summary_sc_csp10_en.pdf (Accessed 08.04.2011).

¹²³EC 2007 Country Strategy Paper and National Indicative Programme for 2008 – 2013. Republic of Seychelles-European Community. pp82. ec.europa.eu/development/icenter/repository/summary_sc_csp10_en.pdf (Accessed 08.04.2011).

¹²⁴UN 2004 Draft Sanitation County Profile – Seychelles. www.un.org/esa/agenda21/natlinfo/countr/.../sanitation2004.pdf (Accessed 08.04.2011).

¹²⁵AMCOW 2010.. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).

¹²⁶JMP-SA 2010.WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation. South Africa - estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents. (Accessed 08.04.2011).

¹²⁷AMCOW 2010. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).

¹²⁸Mjoli, N. 2010.Review of sanitation policy and practice in South Africa from 2001 – 2008.Water Research Commission. sanitationupdates.wordpress.com/.../south-africa-review-of-sanitation-policy-and-practice/ (Accessed 08.04.2011).

¹²⁹Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.

-
- ¹³⁰AMCOW 2010. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).
- ¹³¹Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹³²Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹³³Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹³⁴Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹³⁵Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹³⁶Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹³⁷Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹³⁸Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹³⁹AMCOW 2010. An Indicative list of African Declarations in the Water Sector: Accelerating the implementation of the commitments on water and sanitation taken by African Heads of State and Governments. Draft 22 November (3rd Africa Water Week).
- ¹⁴⁰Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹⁴¹Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹⁴²Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹⁴³Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹⁴⁴Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹⁴⁵Tissington, K. 2011. Basic Sanitation in South Africa: A Guide to Legislation, Policy and Practice. Socio-Economic Rights Institute of South Africa (SERI) pp 78.
- ¹⁴⁶WSSCC 2010. South Africa WASH Collaboration. <http://www.wsscc.org/countries/africa/south-africa/wash-coalition-overview>. (Accessed on 23.02.2011).

-
- ¹⁴⁷ USAID (no date). Strategic Planning of USAID Water and Sanitation Activities in Africa. www.state.gov/documents/organization/67720.pdf. (Accessed 07.04.2011).
- ¹⁴⁸ DFID. 2003. Cost Recovery in Water and Sanitation Projects Contract No. R7384 Volume 1: Main Report. <http://www.dfid.gov.uk/R4D/PDF/Outputs/R7384.pdf>. (Accessed 06.04.2011).
- ¹⁴⁹ DANIDA 2011. Water and Poverty Alleviation: a Dialogue for Action, Durban, South Africa, 11-13 October 2010. <http://washcalendar.wordpress.com/tag/danida/>. (Accessed 07.04.2011).
- ¹⁵⁰ WSP 2004. Rural Sanitation and Hygiene: Challenges and Responses. http://siteresources.worldbank.org/EXTWAT/Resources/4602122-1213366294492/5106220-1213389414833/15.2Sanitation_Hyg.pdf. (Accessed 06.04.2011).
- ¹⁵¹ DfSA 2011. Water and Sanitation [http://www.dbsa.org/\(S\(xnefs02jyeczij451gbs5a55\)\)/Research/FocusAreas/Pages/WaterandSanitation.aspx](http://www.dbsa.org/(S(xnefs02jyeczij451gbs5a55))/Research/FocusAreas/Pages/WaterandSanitation.aspx). (Accessed 08.04.2011).
- ¹⁵² Mwendera 2006. Can Africa Afford to Miss the Sanitation MDG target? A review of the sanitation and hygiene status in 32 countries. www.wsp.org/.../Can Africa Afford to Miss the Sanitation MDG target. (Accessed 08.04.2011).
- ¹⁵³ JMP-Swaziland 2010. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ¹⁵⁴ WaterAid (no date). Southern Africa – Swaziland. www.wateraid.org/uk/about_us/...asked.../wateraids.../7996.asp (Accessed 08.04.2011).
- ¹⁵⁵ AfDB 2009. Lower Usuthu smallholder irrigation project – Phase II studies. African Water Facility. <http://www.africanwaterfacility.org/fileadmin/uploads/awf/projects-activities/Swaziland%20-%20LUSIP%20II%20Studies%20-%20Appraisal%20Report%20Final.pdf> (Accessed 08.04.2011).
- ¹⁵⁶ FAO 2005. Water profile of Swaziland. In: Encyclopedia of Earth. Eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). Zaikowski, L. (Editor). http://www.eoearth.org/article/Water_profile_of_Swaziland. (Accessed 09.04.2011).
- ¹⁵⁷ SNEHP 2002. The draft Swaziland National Environmental Health Policy. www.ecs.co.sz/ehp/index.htm (Accessed 08.04.2011).
- ¹⁵⁸ SNHP 2002. The draft Swaziland National Environmental Health Policy. www.ecs.co.sz/ehp/index.htm (Accessed 08.04.2011).
- ¹⁵⁹ WashWatch 2010. Sanitation Policy (Monitoring the eThekweni declaration). www.washwatch.org/ (Accessed 08.04.2011).
- ¹⁶⁰ SNHP 2002. The draft Swaziland National Environmental Health Policy. www.ecs.co.sz/ehp/index.htm (Accessed 08.04.2011).
- ¹⁶¹ FAO 2005. Water profile of Swaziland. In: Encyclopedia of Earth. Eds. Cutler J. Cleveland (Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment). Zaikowski, L. (Editor). http://www.eoearth.org/article/Water_profile_of_Swaziland. (Accessed 09.04.2011).

-
- ¹⁶²Dlamini, P & K. Mabuza. 2004. Primary school baseline study on water supply, sanitation and hygiene education in Lubombo and Siselweni regions of Swaziland – Lessons learned. www.wsp.org/wsp/...Sanitation-Water.../Swaziland-Dlamini-Primary.pdf (Accessed 08.04.2011).
- ¹⁶³WorldVision 2009. Swaziland. <http://www.worldvision.org/content.nsf/learn/world-vision-swaziland>. (Accessed 09.04.2011).
- ¹⁶⁴DEWASA 2000. Tanzania Case Study: Strengthening the capacity of water utilities to deliver water and sanitation services, environmental health and hygiene education to low-income urban communities. Dar es Salaam Water and Sewerage Authority. web.mit.edu/urbanupgrading/waterandsanitation/.../tools.htm. (Accessed 09.04.2011).
- ¹⁶⁵CIA 2011. Tanzania. The CIA world Fact Book. <https://www.cia.gov/library/publications/the-world.../tz.html>. (Accessed 09.04.2011).
- ¹⁶⁶JMP-Tanz 2010. WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ¹⁶⁷USAID-Tanz 2010. The United Republic of Tanzania Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO940.pdf (Accessed 12.04.2011).
- ¹⁶⁸USAID-Tanz 2010. The United Republic of Tanzania Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO940.pdf (Accessed 12.04.2011).
- ¹⁶⁹Kjaer, A. 2009. Implementation of the National Water Policy in Tanzania - A case study of the Pangani River Basin. www.ddrn.dk/.../Implementation_of_the_National_Water_Polic_in_Tanzania.pdf (Accessed 12.04.2011).
- ¹⁷⁰URT 2005. National Water Sector Development Strategy. United Republic of Tanzania. http://waterwiki.net/index.php/National_Water_and_Sanitation_Planning (Accessed 12.04.2011).
- ¹⁷¹WSP 2009. Building Partnerships for Sustainable Water and Sanitation Services in Africa - Lessons from collaborative initiatives by the World Bank, African Development Bank and the Water and Sanitation Program. <http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents>. (Accessed 12.04.2011).
- ¹⁷²GoT 2009. The Water Supply and Sanitation Act. <http://www.ewura.go.tz/pdf/act/THE%20WATER%20SUPPLY%20%20AND%20SANITATION%20ACT%20NO%2012%20OF%202009%200001.pdf>. (Accessed 12.04.2011).
- ¹⁷³USAID-Tanz 2010. The United Republic of Tanzania Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO940.pdf (Accessed 12.04.2011).
- ¹⁷⁴USAID-Tanz 2010. The United Republic of Tanzania Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO940.pdf. (Accessed 12.04.2011).
- ¹⁷⁵USAID-Tanz 2010. The United Republic of Tanzania Water and Sanitation Profile. pdf.usaid.gov/pdf_docs/PNADO940.pdf. (Accessed 12.04.2011).
- ¹⁷⁶WaterAid 2010. Tanzania. www.wateraid.org/international/what_we_do/.../tanzania/ (Accessed 12.04.2011).

-
- ¹⁷⁷NETWAS 2010. Netwas Tanzania. www.netwas.org/index.php/misc/Netwas-Tanzania.htm (Accessed 12.04.2011).
- ¹⁷⁸TWESA 2010. Tanzania. www.twesa.org/ (Accessed 12.04.2011).
- ¹⁷⁹CIA 2010. Zambia. The CIA world Fact Book. <https://www.cia.gov/library/publications/the-world.../za.html>. (Accessed 08.04.2011).
- ¹⁸⁰JMP-Zam 2010. Zambia - WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ¹⁸¹UNAID-Zam 2009. Zambia Water and Sanitation Profile. waterwiki.net/images/3/38/USAIDZambiaWatSanProfile. (Accessed 08.04.2011).
- ¹⁸²USAID-Zam 2009. Zambia Water and Sanitation Profile. waterwiki.net/images/3/38/USAIDZambiaWatSanProfile. (Accessed 08.04.2011).
- ¹⁸³USAID-Zam 2009. Zambia Water and Sanitation Profile. waterwiki.net/images/3/38/USAIDZambiaWatSanProfile. (Accessed 08.04.2011).
- ¹⁸⁴CIA 2010. Zimbabwe. The CIA world Fact Book. <https://www.cia.gov/library/publications/the-world.../zi.html>. (Accessed 08.04.2011).
- ¹⁸⁵WCSSC 2011. Zimbabwe WASH sector at a glance. Water Supply and Sanitation Collaborative Council. www.wsscc.org/countries/africa/zimbabwe/wash-sector-glance. (Accessed 08.04.2011).
- ¹⁸⁶JMP-Zim 2010. Zimbabwe - WHO / UNICEF Joint Monitoring Programme for Water Supply and Sanitation - Estimates for the use of Improved Sanitation Facilities. www.wssinfo.org/documents.../documents/. (Accessed 08.04.2011).
- ¹⁸⁷WCSSC 2011. Zimbabwe WASH sector at a glance. Water Supply and Sanitation Collaborative Council. www.wsscc.org/countries/africa/zimbabwe/wash-sector-glance. (Accessed 08.04.2011).
- ¹⁸⁸UN 2011. CERF – critical emergency relief fund. <http://ochaonline.un.org/CERFaroundtheWorld/Zimbabwe2011/tabid/7410/language/en-US/Default.aspx>. (Accessed 13.04.2011).
- ¹⁸⁹WB 2011. Beitbridge Water Project Launches to Provide Better Sanitation. <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/ZIMBABWEEXTN/0,,contentMDK:22880205~menuPK:50003484~pagePK:2865066~piPK:2865079~theSitePK:375736,00.html>. (Accessed 12.04.2011).
- ¹⁹⁰AusAID 2010. Expanding access to clean water and effective sanitation in Africa. <http://www.ausaid.gov.au/country/africa/water-sanitation.cfm>. (Accessed 12.04.2011).
- ¹⁹¹AfDB 2011. Zimbabwe: Urgent Water Supply and Sanitation Rehabilitation Project. <http://washafrika.wordpress.com/2011/03/09/zimbabwe-urgent-water-supply-and-sanitation-rehabilitation-project/>. (Accessed 12.04.2011).
- ¹⁹²Africare. (no date). Buhera integrated community water and Sanitation project Proposal. www.africanwellfund.org/forum/attachment.php?attachmentid=2572&d. (Accessed 12.04.2011).

¹⁹³AHEAD 2011. Association for Applied Health Education And Development.
<http://www.africaahead.org/associate-practitioners/associate-members/zimbabwe/>. (Accessed 14.04.2011).