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Water Operators Partnership (WOP) Africa Peer-to-peer Learning and Benchmarking

APPRAISAL REPORT

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i LIST OF ACRONYMS

ADB, AfDB	-	African Development Bank
AfWA	-	African Water Association
AMCOW	-	African Ministers Council for Water
AWOP	-	African Water Operators Partnership
CBOs	-	Community Based Organisations.
DfiD	-	Department of International Development of United Kingdom
EP	-	Executing Partner
ESAR-IWA	-	East and Southern Africa Region of International Water Association
EU	-	European Union
GWOP	-	Global Water Operators Partnership
HAP	-	Hashimoto Action Plan
HH	-	House Hold
HQ	-	Head Quarter
IB-NET	-	International Benchmarking Network
IWA	-	International Water Association
JMP	-	Joint Monitoring Programme
MDGs	-	Millennium Development Goals
MIS	-	Management Information System
MoU	-	Memorandum of Understanding
NGO	-	Non-Governmental Organisation
NRW	-	Non-revenue water
OCCR	-	Operation cost coverage ratio
O&M	-	Operation and Maintenance
PC	-	Program Committee
PCSU	-	Program Coordination and Support Unit
PIP	-	Performance Improvement Plan
PPP	-	Public Private Partnership
PSP	-	Private Sector Participation
RC	-	Regional Council
SBP	-	Strategic Business Plan
SC	-	Steering Committee
SEAWUN	-	South East Asian Water Utilities Network
TA	-	Technical Assistance
UN	-	United Nations
UN-DESA	-	United Nations Department of Economic and Social Affairs
UNDP	-	United Nations Development Programme
UNSGAB	-	United Nations Secretary General Advisory Board on Water and Sanitation
USAID	-	United States Agency for International Development
WOP	-	Water Operators Partnership
WSP	-	Water and Sanitation Program of the World Bank
WSS	-	Water Supply and Sanitation
WUP	-	Water Utilities Partnership

ii LOGICAL FRAMEWORK

HIERARCHY OF OBJECTIVES	EXPECTED RESULTS	REACH	PERFORMANCE INDICATORS	TARGETS AND TIMEFRAME	ASSUMPTIONS / RISKS
Goal	**Impact**	**Beneficiaries**	**Impact Indicators**	**Baseline and Indicative Targets**	**Risks and Mitigation**
Increase number of African utilities achieving international best practice on central efficiency parameters and increasing funding of investments from own revenue	Adoption of best practices by utilities leading to more sustainable operation and maintenance of urban piped water and sewage schemes and improved coverage through increased investment.	Customers, employees, owners and investors of AfWA members and other African utilities. All African states and governments	Operation cost coverage ratio (OCCR: Annual billing / annual operation costs) Collection rate and period Non-revenue water (water losses) *Sources :* Surveys of AfWA and others among African water utilities IB-Net, AfWA and other databases	OCCR > 1,2 for >75% of utilities in 2025 from 20 out of 91 utilities in 2006 (*) Collection > 90% in < 3months for > 25% for utilities in 2025 from 3 out of 68 utilities in 2006 (*) NRW < 25% for > 50% of utilities in 2025 from 27 out of 98 utilities in 2006 (*) (*) WOP Africa Utility Performance Assessment, 2009	*Assumption :* Economic progress and political stability *Risk :* Limited capacity and resources to improve management and implement investments *Mitigation :* Monitoring and publication of progress & deficiencies; promotion of best practices beyond project scale and duration
Purpose	**Outcome**	**Beneficiaries**	**Outcome Indicators**	**Baseline and Indicative Targets**	**Risks and Mitigation**
More sustainable utility operations including better Quality of Service Financial Performance Technical Performance Coverage	Increased collaboration among African utilities leading to Improved Utility Performance including Quality of Service Financial Performance Technical Performance Improved Infrastructure	Utilities involved in peer-to-peer learning Clients of Utilities involved in peer-to-peer learning All (other) members of AfWA	Operation cost coverage ratio (OCCR) Overall Efficiency Indicator (OEI: “Revenue water”/total production) *Sources :* Surveys of AfWA and others among African water utilities IB-Net, AfWA and other databases	Improvement > 5% in 2015 (baseline in 2006 of 90% : 0,59/0,53 USD/m3) (*) Improvement > 10% in 2015 (baseline in 2006 of 52%: [1-0,36]*73%) (*) (*) WOP Africa Utility Performance Assessment, 2009	*Risk :* Weak government support Tariffs are not adapted/adjusted Non-payment of bills by the administration *Mitigation* : Consultation with AMCOW and international donors

Inputs and Activities	Outputs	Beneficiaries	Output Indicators	Baseline and Indicative Targets	Risks and Mitigation
Component A : 10 peer-to-peer learning partnerships between African water and sanitation utilities *Cost :* 340 000 Euros	10 Performance Improvement Plans (PIP) implemented	Utilities involved in peer-to-peer learning All (other) members of AfWA The water and sanitation sector in Africa	Operation cost coverage ratio (OCCR: Annual billing / annual operation costs) Collection rate Non-revenue water (water losses) Specific Technical parameter(s) of each PIP (to be defined) *Sources :* Partnership agreements Performance Improvement Plans (PIP) Evaluation of PIPs Project reports, Other reports of WOP Africa and AfWA	Improvement of at least 5% in 2011/12 (baseline in 2008/10 < 90%, different for each company) (*) Improvement of at least 10% in 2011/12 (baseline in 2008/10 < 70%, different for each company) (*) Improvement of at least 10% in 2011/12 (baseline in 2008/10 > 35%, different for each company) (*) Improvement of at least 10% in 2011/12 (e.g. metering, continuity of service, production volume, electricity consumption, treatment cost, etc.) (*) (*) Subject to adjustment in kick off workshops	*Risk :* Lack of interest / contributions by utilities *Mitigation :* Limitation of initial number of partnerships
Component B : Benchmarking of utilities and updating a utility performance database *Cost :* 150 000 Euros	Performance assessment of African utilities updated Database operational	AfWA members The water and sanitation sector in Africa Investors / donors interested in the sector	Performance indicators available for 80% of African water utilities Operational Database *Sources :* Completion report and other project reports, Annual Reports of WOP Africa and AfWA	At least 120 evaluations of utilities updated in 2011/12 out of 134 available in 2007 (*) At least 100 queries answered by operational database in 2011/12 (*) WOP Africa Utility Performance Assessment, 2009	*Risk :* Data reliability *Mitigation :* Mobilisation and checking ; validation workshop

0 EXECUTIVE SUMMARY

Urban water utilities in Africa differ greatly in size, organisational culture and operating environments. But they all share one major challenge, which is expanding access to appropriate levels of services to their growing urban populations. Africa lags behind other regions in the achievement of the MDGs and operational inefficiencies are a major cause of poor access to water services. One third of production goes to physical and commercial losses and revenues are insufficient to cover operating costs let alone expand service coverage. So it is becoming clear that a huge potential in the African water sector lies in increasing operational efficiency – in particular by reducing wastage, improving service quality and securing cash flows.

Water operator partnerships (WOPs) are a promising approach for improving the efficiency of water utilities. These partnerships focus on intense and systematic knowledge-sharing through peer-support between water operators as a accelerated approach to bridge the existing capacity gaps more cost effectively. Availability of reliable performance information across the region has improved significantly through a utility self-assessment exercise among African water utilities. Ascertained strengths and identified needs provide a basis for the most promising areas for learning and peer-support under the evolving WOP platform.

On average, utilities provide water to only about 65 percent of the population within their supply areas while sewerage services coverage is only 36 percent. Most utilities are currently struggling to cover even their operating costs. Less than half of the utilities can be considered financially viable and, for many, poor performance on collections seems to be the main problem. The findings also show that Non-Revenue Water (NRW) is a major weakness for most utilities. In many systems, as much as a third of production is lost due to technical and commercial losses and, on average, utilities in the sample get revenue for only half of the water they produce.

The evolving WOP-Africa program is well placed to connect utilities and facilitate knowledge sharing and capacity building – especially on improving technical efficiency and improving cash flows, areas that are critical to improving service coverage. Crucially for a successful peer support approach, there are some well-performing utilities in Africa. Many countries have improved the institutional framework making it possible for utilities to shift from crisis management to strategic planning and performance improvement, which can be emulated by those still lagging behind. The available WOP Africa Utility Performance Assessment has identified utilities with superior performance matching the weaknesses of those utilities seeking improvement.

This provides the basis for improvement by emulation which this project will exploit in the ten peer-to-peer learning partnerships to be supported through the African Water Association (AfWA) and the newly established WOP Secretariat based in Johannesburg under Component 1 of AWF funding. Each of these partnerships will implement a specific Performance Improvement Plan specifying substantial improvement of critical parameters for customer service, financial and technical performance. The benchmarking and performance assessment will provide an update of the 2006 data available and install an operational database under Component 2. These components will contribute to accelerated improvement of utility performance through more intense and systematic knowledge sharing. The required ‘champions’ achieving international best practice are available for most parameters and regions.

It is recommended to support the implementation of the WOP Africa by a Grant not exceeding 490 000 Euro from the African Water Facility. This grant is also meant to generate the first data and information which will help AfWA scaling up up the WOP at the continent level. The final workshop will aim at formulating a proposal for scaling up WOP-Africa.

1 BACKGROUND

1.1 Origin of the Project

1.1.1 Clean drinking water shortages continue to be a significant problem in many parts of Africa. The quality and coverage of services from most of the urban water utilities remains poor. The situation is becoming worse with high urban population growth rates reported at over 2-6 percent per year. The rapid pace of urban population growth is a major challenge *and* opportunity for urban water utilities in Africa! For a long time, measures taken by governments to address service coverage gaps have concentrated on building new infrastructure with little attention given to improving efficiency and productivity of water utilities. However, estimates of finance requirements for water and sanitation expansion point to large funding gaps and prospects of private sector investments appear bleak. These realities have compelled major players in the water sector to seek alternative approaches to improving water service coverage.

1.1.2 Alternative approaches include capacity-building and knowledge sharing through Water Operators Partnerships (WOPs). These partnerships have recently been recognised by utilities and their partners as a promising approach for improving the performance of water operators and accelerating progress towards the Millennium Development Goal (MDG) targets for water and sanitation services. At the most basic level, WOPs seek to bridge the capacity gaps that exist in many developing countries through intense and systematic knowledge-sharing including peer support partnerships between operators. A utility self-assessment exercise among selected African water utilities has ascertained their strengths and needs and identified the most promising areas for learning and peer-support under the evolving WOP platform.

1.1.3 The Global Water Operators' Partnership (GWOP) is an important element of the Hashimoto Action Plan (HAP) launched in March 2006 by the United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB). The HAP proposed WOPs to strengthen local water services and to achieve internationally agreed targets. This makes WOPs an important tool for capacity building and performance improvement of water utilities to step up progress toward the MDGs targets for water and sanitation access. UN Habitat was mandated by the UN Department of Economic and Social Affairs (UN-DESA) with the responsibility to implement the GWOP through distinct regional initiatives. A central objective of the Global and Regional WOPs will be to develop a platform that would link needs and sources of support through peer support partnerships.

1.1.4 WOP Africa was launched at the African Water Association (AfWA) congress in Cotonou, Benin in February 2008 after preparation since 2006 which included workshops in Johannesburg and Nairobi. The Eastern and Southern Africa Region of the International Water Association (ESAR-IWA) has been instrumental in extending the reach of WOP Africa. A Memorandum of Understanding between these two main association has been signed and EWAR-ISA will be integrated into AfWA in the near future. Three regional workshops were held in Kampala, Dakar and Maseru each gathering about 60 to 100 utility managers. All three workshops shared the results of the continent-wide benchmarking and identified potential partnerships between utilities for the implementation of WOP-Africa. The participants demonstrated high interest in learning from other utilities in many areas including non-revenue water reduction and debt management. All the regional workshops were conducted through a highly participatory manner, enabling every utility to voice interests and concerns. In break-away sessions utility representatives were asked to present best practice they have implemented as a way of motivating their colleagues to reflect on

possible solutions. A 'market place' was also organised to enable utility managers to post the areas where they needed support and where they could support others.

1.1.5 The market place clearly showed areas where support is needed. These include customer care, collection efficiency, non-revenue water reduction, debt management, human resource development, service to the poor, sanitation, metering efficiency and others. From the data collection it was clear that most utilities faced acute problems of weak MIS systems, quick information retrieval and reporting. There were also issues of cost recovery, and resultant break-even problems. In this regard, the need for efficient financial management was highlighted. This project is focusing on priority themes to ensure quick wins.

1.2 Sectoral Priorities

1.2.1 Currently a large fraction of available investment funds for water and sanitation is absorbed by rehabilitation of existing infrastructure that has been not been maintained adequately. Improvement of the efficiency of utility operations to levels of international best practice will allow accelerated expansion of coverage. Improved utilities should be able to generate some investment funds internally and be attractive targets for public and private finance if their market potential exceeds the level of such internally generated funds. Public operators are responsible for providing water and sanitation services to more 90% of urban households and are therefore the priority target of operation efficiency improvements. More intense and systematic knowledge sharing including peer support partnerships between operators will contribute to accelerated economic development which includes water and sanitation as priority sectors in most African countries.

1.3 Problem Definition

1.3.1 The UN Millennium Project has pointed out that the current pace of progress is still too slow to reach the water and sanitation related Millennium Development Goals. Less than half of the countries of Africa appear on course to achieve these global goals. There are many good and acceptable practices on the African continent but there is little encouragement to share the underlying technologies and processes of well performing utilities with underperforming peers. The WOP Program is aimed at closing this learning and benchmarking gap.

1.3.2 The African continent poses the most difficult challenge for achieving the water and sanitation MDG targets. These require a doubling of the pace of expansion of coverage in water supply in urban areas and a tripling for sanitation. Reaching 175 million urban customers by 2015 would call for roughly 7,000 to 10,000 new connections per day for Africa as a whole – more than double the present rate. Most of these new customers will be poor households living in inner city slums or peri-urban settlements as the more affluent are already connected.

1.3.3 Recent projections show that following the 'business as usual' trends, Sub-Saharan Africa would only reach the MDG targets for water services by 2040, and those for sanitation by 2076 (UNDP, 2006). The WOP initiative recognises the critical role of WSS utilities to accelerate progress. *It is also becoming clear that the real potential in the African water sector lies in increasing the efficiency in the already existing systems; reducing wastage, improving service quality and securing cash flows can increase coverage and revenues in the existing systems.*

1.3.4 The previous Water Utilities Partnership (WUP, 1996 – 2006) aimed to develop a better understanding of the conditions necessary for water and sanitation services to reach low income communities. It was intended to conduct in-depth case studies on particular best practices to learn what is necessary to replicate these practices elsewhere. An action research program to identify good practices was carried out under WUP 5 in three phases:

- Phase 1 (1998-99) developed and tested the methodology in Zambia and Ethiopia.
- Phase 2 (1999-2000) documented good practices from Zambia, Malawi, Tanzania, Ethiopia, Nigeria, Ghana, Senegal, Cote d'Ivoire and Mali.
- Phase 3 (2001) disseminated principles and selected "good practices" for extending WSS services to the urban poor based on the evaluation of previous results.

1.3.5 The WUP contributed significantly to the formulation of policies and practices through which African utilities could improve their performance and extend their services. A related WUP mantra has been broadly disseminated and is still relevant to the WOP program: *A reasonably efficient and financially viable utility is a pre-condition for serving the poor at scale.* African policy makers and sector planners recognized the potential and the relevance of utility partnerships and have taken steps to start a WOP program that builds on WUP. All publication of the WUP and key lessons learnt will be made available on the WOP-Africa webpage.

1.3.6 The WOP Africa is supported by African water and sanitation utilities, their associations and their partners. The initial step to promote WOP in Africa was the Nairobi workshop in December 2006 which endorsed the idea of a regional WOP Africa and mandated UN Habitat to pursue its preparation in collaboration with WSP, taking into account the experience gained with similar initiatives, in particular the Water Utility Partnership (WUP). The next step was the Johannesburg Workshop in April 2007 which defined guiding principles and an action plan for the further development of WOP Africa. Three regional workshops in Kampala, Dakar and Maseru looked at various performances in various areas of indicators, identified themes of cooperation, which have formed part of the foundation of this project.

1.3.7 The required rapid, cost effective and sustainable improvement of the operational efficiency of utilities lies at the centre of the approach chosen in the WOP Africa programme and this project. The affordability of water services will be enhanced as improved efficiencies will reduce tariff increases required for better services and more consumers can be supplied with existing resources. This will also improve willingness to pay if adequately communicated to the customers of utilities.

1.4 Previous partnerships carried out

1.4.1 A core mandate of both AfWA and ESAR-IWA is to develop professional capacity of their members in water and sanitation utility management to significantly contribute to improved service access across the continent. This is achieved through technical workshops, scientific and technical council meetings and congresses and peer-to-peer learning and partnerships. The WUP initiated in 1996 was a first attempt to scale up partnerships and information exchange across Africa. Additionally, several bilateral or multilateral partnerships involving African Utilities have been signed under the auspices of AfWA, ESAR-IWA,WB, WBI, WSP etc. These cover technical and non-technical aspects of utility management, performance or policy development with ONEP (Morocco), SDE (Senegal), SODECI (Côte d'Ivoire), NWSC (Uganda) playing a mentor role in several projects. The focus areas of previous utilities partnerships comprise institutional reform

and change management; training, monitoring and evaluation systems; non-revenue water management; planning and asset management; billing and customer services, improving sanitation coverage; and PIP preparation.

1.4.2 Positive impacts of these partnerships can be observed but a coordinated programme is still lacking. Self-funding capabilities of public utilities is another limiting factor. Very few partnerships with small scale service providers are reported. Previous partnerships were not often documented and monitored and there was no platform to match demand and offer, the basis of the current WOP programme.

1.5 Beneficiaries and Stakeholders

1.5.1 The direct beneficiaries of the project will be the ten utilities receiving mentors in the sponsored peer-to-peer learning partnerships. Their customers, other AfWA members and the 'champions' providing the support will benefit indirectly from the project. In a wider sense, all African utilities, governments and population will benefit from this project, in particular if the programme will continue and can be scaled up after the 10 initial partnerships sponsored under this project. In this context the overall water and sanitation sector in Africa including current and potential investors and donors will indirectly benefit from the project and programme in the long term.

1.5.2 The WOP Africa initiative is a tool for the improvement of the performance of African utilities and will contribute towards the achievement of the WSS MDG targets and progress towards universal access to safe water and sanitation. The main stakeholders in this project are AfWA, ESAR-IWA and the participating utilities. They will promote the Program and communicate the results and lessons. They will provide the institutional framework for the Program Coordination and Support Unit (PCSU) and ensure its proper management in line with sound business practices. A governance structure was agreed through a participatory process.

1.6 Justification of AWF Support

1.6.1 This project fits within the AWF mandate under Improved Service Delivery, with a clear focus on innovation. Funding from the AWF will enable the project to undertake an initial set of peer-to-peer learning partnerships to improve critical operation and maintenance parameters identified in the assessment. The AWF has been engaged in a project preparation process with AfWA and other stakeholders including the Water and Sanitation Program (WSP) to ensure that the project fits into the AWF mandate and contributes towards the achievement of AWF objectives.

1.6.2 The base financing of programme management provides important advantages. Respected regional and international partners increase the credibility and profile of the project. AWF co-financing is for two clearly defined priority components which will promote visibility the Facility. Opportunities for scaling-up can be realistically expected. The learning and knowledge dissemination are strengthened through benchmarking and the performance assessment update.

2 THE PROJECT

2.1 Impacts

2.1.1 WOP Africa will contribute to improved sustainable operation and maintenance of urban piped water and sewage schemes. The development and improvement of WSS services will be supported through increased collaboration between water operators. Service will initially increase in quality and additionally translate into extension of covered area through focus on customer services, performance improvement plans, training, monitoring and evaluation (M&E) systems as well as increased investment.

2.2 Outcomes

2.2.1 WOP Africa will improve the performance of African Utilities which will operate more efficiently, be better managed, more accountable and responsive, provide sustainable and equitable quality water and sanitation services in their areas of operation. In addition, increased collaboration among African utilities, encouraged knowledge sharing, coming up with practical approaches and actions aimed at improving performance will follow from the successful implementation of WOPs. Accordingly, the specific outcomes of this project include, among others:

- Improved Quality of Service including better continuity of service and extension of coverage according to demand;
- Improved Financial Performance mainly focussing on collection efficiency and Operation Cost Coverage Ratio (OCCR);
- Improved Technical Performance with water losses (NRW – non-revenue water) as initial focus, consumption of energy and chemicals as well as utility specific parameters as follow-up;
- Improved infrastructure aiming at pro-poor service expansion and return on investment;
- Improved reporting and benchmarking platforms for African utilities including a comprehensive and user-friendly database and updated performance assessment;
- Utility managers and staff with a clear understanding of the challenges they face.

2.2.2 Additionally, culture of capacity-building, knowledge sharing and networking; as well as a sound environment and sustainability of water resources would be provided through incentives from the right sector policies and institutions.

2.2.3 A manual on best practices will be placed on WOP and websites. A printed version will be published if funding can be assured. Lessons learnt will be used to develop a proposal on larger scale. The final workshops will aim at formulating a proposal for scaling up WOP-Africa.

2.3 Outputs

2.3.1 The purpose of the WOP Africa Programme is to build a platform of exchanges and partnerships between water and sanitation utilities in Africa for capacity enhancement as well as sharing of best practices. Under the AWF funded components, the participating utilities will establish ten partnership agreements and Performance Improvement Plans (PIP) describing the quantitative progress of each utility aiming at improved technical and financial performance. Specific parameters will include in each case the following:

- Operation cost coverage ratio (OCCR), i.e. total annual billing (excluding subsidies) divided by operation and maintenance costs (excluding depreciation and interest), improved at least by 5%.
- Collection ratio, i.e. cash income as percentage of total billing, improved at least by 20%.
- Non-revenue water (NRW), i.e. water 'lost' as a percentage of net supply, improved by at least 10%.
- Additional specific parameter(s) to be specified separately for each PIP improved by at least 10%.
- *The parameters above are subject to review in the kick-off workshops, in particular for partnership agreements and PIPs focussing on sanitation.*

2.3.2 Initial values of the above parameters will be company specific and can be estimated from the Africa Utility Performance Assessment as follows:

- OCCR:
  Good practice: 150 %
  African average: 100 % (based on billing, only 80% based on revenue!)
  Utilities to be improved: < 90 %
- Collection ratio:
  Good practice: 93 % (collection period of 3 months)
  African average: 73 % (collection period of 8 months),
  Utilities to be improved: < 70 %
- NRW:
  Good practice: 23 %
  African average: 36 %
  Utilities to be improved: > 40 %

2.3.3 The champions participating in partnerships are expected to be close to international best practice or sub-regional leaders for most parameters. The ‚learners' will be below the defined thresholds or among the weakest in their respective sub-region in several parameters. Based on the available performance assessment, an ambitious improvement of the collection efficiency is required. Required improvement of NRW is set lower because substantial investments might not be mobilised during the limited duration of the PIP. Requirements for OCCR improvement are set lowest to allow multi-dimensional goal setting, i.e. participants should have a choice to use increased revenue for reduction of NRW, reduction of maintenance delays, etc.

2.3.4 The updated benchmarking and operational database will allow monitoring of the efficiency and the progress of utilities and their contribution to the MDGs. This will increase the confidence of banks, investors and donors to fund additional improvements that may still be beyond the capacity of the utilities. Up-scaling of peer-to-peer partnership

support to a larger number and wider range of improvement parameters will be prepared through the updated benchmarking and the results of the 10 partnerships funded under this project.

2.4 Activities

2.4.1 AWF funding shall initially cover the two components of Peer-to-peer Learning and Benchmarking out of the overall business plan of the WOP Africa Programme. At least ten peer-to-peer learning partnerships shall be implemented under the initial funding from AWF as Component A. One update of the previous utility benchmarking and database improvement shall be implemented under Component B. All activities related to project management shall be carried out under available funding from other sources.

2.4.2 Component A shall be implemented in all regions (at least one partnership per region). The WOP Coordinator shall initially contact all declarations of interest received in 2008 and including the central parameters on the continental scale (see Annex 4 - demand), provide these utilities with the PIP improvement criteria and financial support set out in this report and ask them to confirm their interest and propose a mentor who has been contacted by them and declared his availability and interest.

2.4.3 Both Mentors and Mentees institutions will provide supporting letters which identify names and departments of staff to be involved in the WOP activities. Mentors will be allowed to ask mentees to complement any addition cost above the amount allowed by the project. Such arrangements will be stated in the MoU to be signed by both parties.

2.4.4 The WOP Coordinator will establish a shortlist of 15 partnerships to be considered for this project by eliminating applicants that are above average for more than one parameter and mentors that are below best practice for more than one parameter. (See paragraph 2.3.2.) Additional criteria to be used will be the improvement potential of the mentee and the "gap" with the mentor. The shortlist will be submitted to the AWF for review and non-objection. 2006 performance data are to be used except in cases where comprehensive data for 2007 or 2008 can be made available.

2.4.5 Based balance of sub-regions, equal workshop participation, anticipated efficiency and innovation to be expected from participants, 10 partnerships shall be invited to participate in the two kick-off workshops. Each partnership shall establish a Performance Improvement Plan with implementation duration of 12 months based on the available self assessment and the initial suggestions made by the mentor. Quarterly and final progress evaluations are to be submitted to the WOP Secretariat. At least two visits by mentor and mentee to the other partner will be made with at least two participants each. Two mid term and two final workshops (one in English and one in French each) will be held to share experience between the partnerships. The impact of each partnership will be evaluated by a local consultant.

2.4.6 Component B will comprise the update of the Africa Utility Performance Assessment – in particular the Utility Self Assessment Questionnaire (USAQ) – and the integration and presentation of results with IB-Net and own database to be established and maintained by AfWA. The database will be accessible for the general public, donors, regional sector ministries and AfWA members at different and progressively detailed levels. The results to be targeted will be for the year 2009. A maximum of responses from respondents in the 2006 exercise shall be targeted and an additional effort shall be made to increase participation from the underrepresented northern region. The results shall be

published additionally in printed form similar to the evaluation of the 2006 data after validation to be carried out at the 2010 annual congress of AfWA.

2.4.7 The database will be available in English and French and help monitoring progress and access in sanitation in Africa. A new list of parameters for monitoring progress in sanitation and performance of sanitation utilities will be developed and validated with AfWA members. Sewage treatment capacity, on site sanitation coverage, faecal sludge collection and treatment capacity and related parameters will be considered. The IBNet indicators will be included in the database. Requests to the database shall allow comparison of performances for each indicator within the sub-region or the continent. An online performance reporting form will be made available for continuous data collection. The principle of the voluntary data collection will be proposed for adoption by AfWA members, as an indicator for measuring the success of its various programme supporting members. This will be introduced and advertised as an additional performance indicator of AfWA, equivalent to recovery rate of member fees. As an incentive, payment of member fees and completion of the assessment form could be submitted at the same time. WOP Africa will identify the responsible persons or services to collect and fill the performance assessment form. Upon completion, the WOP Programme Coordinator will undertake a validation survey before updating the database online. The online request should allow exporting data in PDF and Microsoft Excel format. It should also allow graphical representation online similar to the WHO/UNICEF Joint Monitoring Programme webpage. The state of progress will be published online, highlighting key benchmarking parameters that can be displayed on a map of Africa or shown in tables or histograms. Updated printed and electronic versions of the performance assessment report will be published every two years.

2.4.8 The consultancy will provide the WOP Africa Secretariat with this electronic platform allowing assessment of African Water and Sanitation Utility performance. The indicator list (inputs and output) to be defined by the Consultant jointly with WOP secretariat considering the content of the most recent Africa Utility Assessment and the requirements of performance improvement. The consultant will provide training on the use, maintenance and updating of the database.

2.4.9 The terms of reference for the consultant are to be written by the WOP Coordinator and are subject to review and non-objection by the AWF.

2.5 Risks

2.5.1 This project is based on the underlying assumption that on continental scale there will be continued economic growth and political stability. Progress towards the achievement of the MDGs and related plans may be slowed by limited financial resources and human capital to implement and step up investment plans corresponding to the identified needs. Regular monitoring and publication of progress and deficiencies is the most appropriate mitigation and will be supported by the benchmarking and database component of the project.

2.5.2 During project preparation with utility representatives weak government support, non-adapted or non-adjusted tariffs and non-payment of bills by government and state institutions have been identified as major hurdles towards the improvement of performance by utilities. Consultation with AMCOW and international donors through AfWA has been identified as the most realistic mitigation measure.

2.5.3 The partnerships between utilities could be undermined by the lack of interest from champions or by the lack of commitment and contribution by the underperforming partners. The initial limitation of partnerships to less than 10% of the declared interest should safely mitigate this particular risk.

2.5.4 The benchmarking and database component could see its usefulness seriously curtailed if data are not reliable or not consistent. This has been addressed in the 2006 Performance Assessment and can easily be experienced by using the IB-Net. Validation is to be carried out to limit these deficiencies to acceptable levels.

2.6 Cost and Financing plan

2.6.1 The USAID and UN-Habitat have agreed to finance the WOP Africa Secretariat. The initial funding from AWF amounts to € 490 000. The breakdown of this requested funding is shown in the following table. The overall budget plan of the WOP Programme for the years 2009 to 2012 is shown in the Annex.

Table 1: Proposed Financing by AWF 2010-2011 (in Euros)

Item	*Description*	*Unit*	*Qty*	*Rate*	*Amount*
Wop Initiatives (Budget details to be clarified by Coordinator and participants)					
1	Travel costs (Mentor and Mentee)*	PIP	10	7 000	70 000
2	Accommodation costs (Mentor and Mentee)*	PIP	10	10 000	100 000
3	Workshops (kick off, mid term, final, 2 each)	no	6	32 000	192 000
4	Impact evaluation consultancy	no	10	3 000	30 000
5	Contingency	LS			22 000
	Total - WOP Initiative				414 000
Database Management					
1	Database Software	no	1	30 000	30 000
2	TA input (fees)	workdays	60	250	15 000
3	TA input (per-diems)	workdays	60	100	6 000
4	Launching workshop	LS			10 000
5	Final workshop	LS			10 000
6	Contingency	LS			5 000
	Total-Database Management				76 000
*TOTAL FUNDING REQUESTED ***					*490 000*

* *Travel cost will be specified in each PIP to be approved by the WOP Coordinator.*

** *The sources and breakdown of funding for non AWF funded activities is shown in Annex 1.*

2.7 Eligible travel cost

2.7.1 Travel cost eligible for refund include:

- International travel up to cost of flight ticket in economy class;
- accommodation, food, local transportation and communication cost up to 150 Euro per night or lump sum per diem for exchange staff at the rate of 100 Euro per night;
- visa fees.

2.7.2 The utilities involved in a partnership may top up the per diem or upgrade the flight category to meet their respective internal standards. Such arrangements are to be included in the Partnership Agreement (MoU) signed agreement between the parties.

3 IMPLEMENTATION

3.1 Recipient

3.1.1 The African Water Association (AfWA) will be the Recipient on behalf of its members that elect to participate in the WOPs funded by the project. The ultimate beneficiaries of the project are the populations served by these utilities who would gain access to improved water and sanitation services. The utilities employ personnel that have, in one way or another, participated in benchmarking and capacity building programmes such as the WUP program. In fact, most utilities have already participated in the initial stages of the WOP initiative like the regional workshops in Kampala, Dakar and Maseru. This stage of the WOP Africa implementation is therefore a continuation of the process with more specific benefits.

3.2 Implementation Arrangements and Capacity

3.2.1 The WOP Africa Secretariat hosted by Rand Water in Johannesburg will act as Executing Agency under the overall responsibility of AfWA. The Program Committee will act as Steering Committee of the Program including the approval of work plans and budgets for the AWF funded components. The Regional (AWOP) Council will be consulted on program review, advocacy and as it deems appropriate. Annex 2 illustrates the implementation arrangement of different projects and components under the WOP Africa Programme.

3.2.2 The *Regional Council (RC)* will bring together all key stakeholders and provide strategic guidance, coordination and facilitate relationships with funding partners. The Regional Council will meet at least annually and its membership will include:

a) AfWA-ESAR/IWA (co-chairs), the Program Coordinator (PCSU),
b) Regional organizations (AMCOW, ADB/AWF),
c) Regional NGOs (WaterAid , ANEW),
d) International/regional actors: (UN-HABITAT, WSP, EU, other donors),
e) Utilities engaged in the implementation of specific activities.

3.2.3 The Program Committee (PC) is an organ of the Regional Council established to oversee and support the PCSU. The PC will review annual work programs and budgets as well as annual reports and will monitor the follow-up of the recommendations of the Regional Council. The PC will meet on an “as needed” basis at least twice a year. Its meeting are funded by the WOP secretariat.

3.2.4 The mandate of the WOP Africa Program Coordinator comprises programmatic, financial and operational elements including, among others:

- Provision of clear leadership, continuous attention to the achievement of objectives, further expansion and development,
- Design of action plan, annual work programme, and the consolidated budget,
- Supervision of project implementation,
- Fund mobilisation under the direction of AfWA and the Program Committee,
- Ensure cost-effective projects implementation,
- Monthly financial statement and follow-up on disbursement,
- Development of clear operational procedures for WOP-Africa,
- Preparation and follow up of Program Committee meetings,
- Promotion of WOP-Africa,
- Dissemination of knowledge and good practices,
- Design and implementation of a monitoring and evaluation system,
- Quarterly and annual reports to the Program Committee.

3.2.5. Rand Water will host the secretariat of WOP Africa and provide furnished offices and communication facilities. It will provide assistance for managing and administering WOP Africa funds, outside of the framework of Rand Water. Prof. Hamanth Kasan will be the second signatory to the WOP Africa account as Chair of ESAR-IWA and not in his capacity as a Rand Water employee.

3.2.6. AfWA hires and pays the WOP Africa Coordinator and office running cost. Through its Scientific and Technical Council Meeting and Congress, it will strengthen WOP programme by sharing and disseminating best practices, results and success stories within its network. AfWA will support the WOP secretariat in mobilizing funds for scaling up WOP in Africa.

3.3 Performance Plan

3.3.1 Each of the 10 peer-to-peer learning partnerships funded under this project shall establish a Performance Improvement Plan (PIP) within 3 months of signing of agreement with the WOP Secretariat. Each PIP shall focus on ambitious but realistic improvement levels of critical parameters for improved customer service. The measurable outcomes to be included into each of the PIPs shall consider the specific situation of the utility willing to improve its financial and technical performance and comprise the following parameters which might be adjusted during the Kick-off Workshops:

- Operation cost coverage ratio (OCCR),
- Collection rate (of amounts billed),
- Non-revenue water (NRW, water losses),
- Technical performance according to specific parameters.

3.3.2 The levels of improvement shall aim at realistic and ambitious achievements within 12 months of establishment of the PIP. The minimum improvement for eligibility for funding shall be as follows unless adjusted during the Kick-off Workshops:

- OCCR - at least 5 %

- Collection rate - at least 20 %
- NRW - at least 10 %
- Specific technical parameters – at least 10 %

3.3.3 The update of the utility performance assessment based on the 2006 results shall be prepared within 9 months following Grant Effectiveness. Preparation includes procurement of software, entry of available data and set-up of internet (www) interface for queries by the general public. In addition the previous questionnaires shall be checked and sent out to all previously identified utilities. A special effort shall be made to increase replies from the Northern region and to increase the number of small utilities from countries only represented by one main national supplier.

3.3.4 The Annual AfWA congress shall be used to receive clarifications on previously received replies with perceived inconsistencies. The checked data shall be entered into the database and available for queries by June 2010. Queries shall be documented for evaluation.

3.3.5 Updated performance indicators for 2009 (or 2008/2009) shall be available for 80% of African water utilities and at least for 120 out of 134 utilities available in the WOP Africa Utility Performance Assessment published in 2009. At least 100 queries shall be answered by the operational database by the end of 2010.

3.4 Implementation Schedule

3.4.1 The project will be implemented over a duration of 24 months from Grant Signature with 6 months foreseen for the Grant Agreement and fulfilment of conditions. The implementation period of each partnership agreement will be limited to 12 months. The benchmarking exercise should cover the year 2009 with preparation starting mid year and being completed within 12 months. Additional details are shown in the following table.

Table 2: Project Implementation

Component / Task	*Duration*	*Start*	*End*	*2010*	*2011*
Component A	**18 months**	**Jun 2010**	**Dec 2011**		
Select 10 high potential twinnings	3 months	Jul 2010	Sep 2010		
Establishment of PIP	3 months	Oct 2010	Dec 2010		
PIP implementation	12 months	Jan 2011	Dec 2011		
PIP evaluation	2 months	Nov 2012	Dec 2011		
Component B	**12 months**	**Oct 2010**	**Sep 2011**		
Software	3 months	Oct 2010	Dec 2010		
Questionnaires	3 months	Jan 2011	Mar 2011		
Evaluation of Replies	3 months	Mar 2011	Jun 2011		
Publication of results	3 months	Jul 2011	Sep 2011		

3.5 Procurement and Execution

3.5.1 All procurement of goods, works and acquisition of consultancy services financed by AWF shall be in accordance with the AWF's Operational Procedures, the Bank's *Rules*

and Procedures for Procurement of Goods and Works, or as appropriate, *Rules and Procedures for the Use of Consultants*, using the relevant Bank Standard Bidding Documents. The Procurement arrangements for the entire project are listed in the following table. A summary of AWF funded components is described below.

Table 3: Procurement Arrangements (all amounts in Euro – excluding taxes)

Description	*Shortlist*	*Shopping*	*Total*
CONSULTANCY SERVICES			
Database management	22 000		22 000
Impact evaluation, 10 PIPs	34 000		34 000
REFUND OF TRAVEL AND ACCOMMODATION			
Travel costs of exchange staff		75 000	75 000
Accommodation of exchange staff		105 000	105 000
WOP workshops (kick off, mid term, final, 2 each)		200 000	200 000
Utility assessment / database workshops (launching, final, 1 each)		22 000	22 000
GOODS			
Database Software		32 000	32 000
PROJECT PREPARATION & MANAGEMENT By Recipient *			
TOTAL	*56 000*	*434 000*	*490 000*

** The source of funding for non AWF funded activities is shown in Annex 1.*

3.5.2 *Consultancy Services:* Procurement of Consulting Services for database management and evaluation of PIPs valued in aggregate at € 225 000 will be undertaken through competition on the basis of a short-list utilising the quality and cost based selection process (QCBS). These comprise database set up and update of performance assessment for at least 120 utilities for € 115 000 and the evaluation of 10 Performance Improvement Plans for € 110 000.

3.5.3 *Goods:* Procurement of a database software shall be undertaken under Shopping (SHO) procedures. It is anticipated that one such contract will be awarded not exceeding € 35 000.

3.5.4 *Travel and Accommodation:* Refund of travel expenditure and accommodation expenditure or allowance will be undertaken under Shopping (SHO) procedures. It is anticipated that 10 partnership contracts will be awarded valued in aggregate at € 230 000. Each peer-to-peer learning partnership will include travel and accommodation costs for two utilities.

3.5.5 *Prior Review*: Contracts for Consultancy Services or Goods of value higher than € 10 000 will be subject to prior review by the AWF. The following documents are subject to review and approval by the AWF before promulgation, under prior review; Specific Procurement Notices (SPN), tender/ bid documents or requests for proposals from consulting firms, tender/bid evaluation reports or reports on evaluation of consultants' proposals. The contracts for procurement of database software and database consultancy fall into this category.

3.5.6 *Post Review*: Contracts for Consultancy Services or Works of value € 10 000 or less will be subject to post review by the AWF, and will be processed under the full

responsibility of AfWA. Ex-post technical verification and ex-post financial control systems will be used in these instances to enable the WOP Secretariat to expedite procurement of goods, works and to acquire consulting services. Procurement documents including SPNs, tender/bid documents or request for proposals, tender/bid evaluation reports as well as signed contracts will be kept by the WOP Secretariat for periodic review by the AWF supervision missions or special audits.

3.6 Disbursement Arrangements and Expenditure Schedule

3.6.1 The grant amount covering the AWF funded components of the project will be disbursed using the Special Account method of disbursement, in line with Bank rules and procedures. AfWA will open a Special Account denominated in Euro in South Africa at a bank acceptable to the AWF.

3.6.2 The proceeds of the Grant shall be disbursed by the AWF in two instalments or tranches, based on the implementation schedule and progress. The estimated amounts are as shown in the following table. The first tranche will be disbursed when the conditions for Grant Effectiveness are satisfied. The second tranche will be disbursed upon drawdown of the Special Account estimated to be within 12 months after grant signature.

Table 4: AWF Expenditure and Disbursement Schedule (amounts in Euros)

Category of Expenditures	*Tranche 1*	*Tranche 2*	*Total*
Goods	30 000	0	30 000
Services	270 000	190 000	460 000
Total	*300 000*	*190 000*	*490 000*
Percentage	62 %	38 %	100 %

3.6.3 Obligations of the AWF to make the first disbursement of the Grant shall be conditional upon the opening of a Special Account, the nomination of a Programme Coordinator acceptable to the AWF and the approval of a procurement plan. The supporting documentation for the replenishment of the Special Account will include a statement of receipts and expenditure of funds supported by bank statements, justifying that at least 50% of previous disbursement has been utilised and an audit report. An updated work program and cost estimate for the remainder of the project and evidence of the mobilisation of agreed co-financing has to be included. All detailed documents related to the utilisation of AWF funds will be held by the WOP Secretariat for subsequent verification and confirmation by the external auditors.

3.7 Accounting and Audit Arrangements

3.7.1 AfWA through the WOP Secretariat shall be responsible for the financial management of the project. AfWA has secured sufficient qualified and experienced financial management staff through its hosting agreement with Rand Water. These include: a Program Coordinator, an Administrative Assistant and a dedicated Accountant. They will maintain an accounting system and books of account specifically for the AWF project

components, and will prepare quarterly financial statements in accordance with ADB procedures. These statements will be submitted together with the quarterly progress reports. All payments will be endorsed by the Program Coordinator and all cheques will be countersigned by a representative of IWA-ESAR (see 3.2.5) and Rand Water procedures will be used. Segregation of duties shall be maximised between authorising, accounting and bank signatory functions.

3.7.2 Two audits are expected to be carried out by an external auditor recruited by the AWF. The AWF will recruit and retain an auditor for this purpose, and the cost of the audit shall be paid from the AWF administrative budget, not from this Grant.

3.8 Monitoring, Evaluation and Reporting Arrangements

3.8.1 The supervision of the project by AWF will include regular communication and correspondence with the WOP Secretariat and AfWA, as well as the review of the Quarterly Progress Reports and other documents. AWF may undertake a field supervision mission at any time, as may be needed. Two annual supervision missions are anticipated.

3.8.2 A monitoring system will track project progress and performance at the level of each partnership. The Logical Framework matrix and the PIPs shall serve as a basis for the results based assessment of the outputs of the project during implementation and after completion. The monitoring of the project will be done by the Program Coordinator at mid-term and at the end of each individual project. This will be assisted by the scheduled workshops and evaluation consultants. The Regional Council shall review progress during its regular meetings.

3.8.3 The Recipient shall submit to the AWF the reports/documents noted in the following table. The project completion report shall include details on project activities and a comprehensive expenditure report on the utilisation of the Grant. All documents shall be transmitted to the AWF by email, with hard copies to follow subsequently. Year means calendar year unless agreed otherwise and quarters end with the calendar months of March, June, September and December.

Table 5: AWF Reporting Requirements

Documents to be Submitted to the AWF	*Reporting Schedule*	*AWF Action*
1. Procurement Documents as noted in Section 3.5	As noted in Procurement Section	Review and "no objection"
2. Quarterly Progress Report in AWF format (with report on expenditures)	Within two weeks of end of quarter	Review and comment
3. Annual Report including audited accounts	End of 1st quarter of following year	Review and comment
4. Project Completion Report in AWF format	3 months before end of project	Review and acceptance
5. Minutes of Steering Committee (Regional Council) Meetings	Within 7 days of meeting	Review and comment
6. Minutes of any other project meeting or workshop	Within 7 days of meeting	For information / action

4 PROJECT BENEFITS

4.1 Effectiveness and Efficiency

4.1.1 The basic strategy is to seek accelerated improvements through more intense and systematic knowledge sharing via peer support between operators. In order to cover the entire African continent, as much as possible, activities shall be conducted on regional basis, to cater for commonality of values and operating contexts. Bottom-up approaches shall be used to assess demands for utility-to-utility peer support partnerships. Transactions shall be not-for-profit and also not-for-loss to encourage participation and commitment of mentees and mentors. Practical approaches aimed at addressing specific challenges facing participating utilities shall be adopted and if possible carry out clustering so that 'streams' of similar challenges can be mapped out and handled more efficiently and cost-effectively.

4.1.2 The partnership approach can be expected to contribute to improved efficiency of operators much faster and more cost effective than traditional approaches involving consultants. The available performance assessment shows that in most regions champions are available. 'Champions' achieve international best practice for critical parameters.

4.1.3 This project motivates utilities by refund of additional costs and AfWA is providing a public forum providing international recognition of efforts and results. The benchmarking and performance assessment update will provide proof of success and identify further improvement options.

4.2 Sustainability

4.2.1 Improving the performance of utilities to achieve operation cost coverage ratios (OCCR) of 1.2 and above is an absolute pre-requisite for sustainable operation and extension of water supply and sanitation networks and related facilities. The demonstration of good practices by successful practitioners will be more easily understood by underperforming companies and staff than most conceivable alternative approaches.

4.2.2 The WOP Africa Secretariat will be an important stepping stone in the agreed integration of ESAR-IWA into AfWA. It will be staffed by competent personnel with mandate to achieve the objectives of the WOP Africa initiative.

4.2.3 It should be expected that out of over 100 declarations of interest for WOPs already available at AfWA another 50 to 100 would deserve support after the completion of the 10 partnerships included in this project.

4.2.4 The funded WOPs will not require continuous support and the performance improvements are expected to allow not only further cooperation among the partners but even minor improvements or extensions out of the utilities' own revenue.

4.2.5 The Project will strengthen the effectiveness and sustainability of WOP participants and all AfWA members for improved operational efficiency and service delivery beyond the project period by the use of existing structures in project implementation and institutionalised learning. The project components will be anchored in existing associations of utilities and all AfWA members will be informed regularly on the achievements of WOPs funded under this project.

4.2.6 Environmental Management issues are not central at the conceptual level of the WOPs. It can, however, be expected that the increase of efficiency will typically include the reduction of water losses and that the increased performance of sewer networks and treatment will gain attention after the most burning issues of underperformance have been

addressed. It will be the responsibility of each utility to follow respective national environmental legislation, regulation and procedures. In addition the absence of environmental degradation will be ensured for each PIP to be implemented by the WOP Secretariate.

4.2.7 Socio-economic and Gender benefits will be considered and ensured as follows through increased reliability of services. Specific analysis may be carried out within individual PIPs according to the assessment by the implementing utilities and the WOP Secretariat. The project activities will include the preparation and dissemination of information which will promote gender equality.

4.2.8 The risks posed by climate change and variability will be considered in the improvement of the water production and drainage facilities which may be prepared during the WOPs funded by this project. This will include the required attention to increased storage capacities and flood proof locations of facilities.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1.1 At this stage less than half of the countries of Africa have succeeded to put themselves on course for the WSS/MDGs. The WOP initiative seeks to improve the performance of utilities through more intense and systematic knowledge sharing and capacity building including peer support between operators. The WOP Secretariat provides a platform to initiate and promote peer support.

5.1.2 The project preparation involved an Africa Utility Performance evaluation covering 134 utilities, workshops and a mission of AfWA to the AWF. Over 100 potential WOPs have been identified.

5.1.3 The positive aspects of this project include:

- A regionally owned initiative which reaches the majority of water and sanitation utilities in Africa, applying an innovative, rapid and cost effective approach to directly improve the efficiency of operation, maintenance and management of participants and indirectly benefit all members of the African Water Association.
- Tackling some difficult issues, such as OCCR, NRW and collection efficiency.
- The promotion of regional champions as mentors will make their achievements better known on regional scale.
- Focus on professional capacity building focussing on quick wins.
- Complementary co-financing, with the AWF funding clearly defined components related to the implementation of peer-to-peer learning and updating a comprehensive performance assessment covering all regions of the continent.

5.1.4 The total cost of project components which the AWF is requested to fund is € 490 000. Project management and additional components will be covered by the Recipient and other donors.

5.2 Recommendations

5.2.1 It is recommended that a grant not exceeding € 490 000 from the African Water Facility resources be extended to the African Water Association for the implementation of the project as described in this appraisal report.

5.2.2 Obligations of the AWF to make the first disbursement of the Grant shall be conditional upon the nomination of a Program Coordinator and an accountant, acceptable to the AWF, the opening of a Special Account in a bank acceptable to the AWF, the submission of a procurement plan and the proof of availability of funding for Programme Coordination and project management for the scheduled implementation period of AWF funded components.

ANNEX 1 – Detailed Budget

Activity Description	NOTE	Year 1	Year 2	Year 3	TOTAL	AWF
		Euros	Euros	Euros	Euros	Euros
A) Program Coordination	1					
Salaries + benefits		81 600	81 600	81 600	244 800	
Work related travels		27 200	40 000	40 000	107 200	
Secretariat Operating costs		16 320	16 320	16 320	48 960	
Recruitment expenses		10 200			10 200	
Accountability books keeping		8 160	8 160	8 160	24 480	
RC and PC meetings		20 400	20 400	20 400	61 200	
TOTAL PROGRAM COORDINAT.		**163 880**	**166 480**	**166 480**	**496 840**	**0**
Component A*						
B) 10 new partnerships	2					
WOP 1		8 500	8 500		17 000	17 000
WOP 2		8 500	8 500		17 000	17 000
WOP 3		8 500	8 500		17 000	17 000
WOP 4		8 500	8 500		17 000	17 000
WOP 5		8 500	8 500		17 000	17 000
WOP 6		8 500	8 500		17 000	17 000
WOP 7		8 500	8 500		17 000	17 000
WOP 8		8 500	8 500		17 000	17 000
WOP 9		8 500	8 500		17 000	17 000
WOP 10		8 500	8 500		17 000	17 000
Impact Evaluation Consultancy			30 000			30 000
Contingency						22 000
TOTAL WOP INITIATIVES (component A)		**85 000**	**115 000**		**170 000**	**222 000**
C) WOP regional workshops*	3					
Kick-off workshop 1		32 000			32 000	32 000
Kick-off Workshops 2		32 000			32 000	32 000
Mid-term review workshop 1		32 000			32 000	32 000
Mid-term review workshop 2		32 000			32 000	32 000
Final workshop 1			32 000		32 000	32 000
Final workshop 2			32 000		32 000	32 000
TOTAL WORKSHOPS (component A)		**128 000**	**64 000**		**192 000**	**192 000**
Component B**						
D) DATA BASE MANAGEMENT	4					
Procurement of a suitable data management system		30 000			30 000	30 000
TA fees		15 000			15 000	15 000
TA per diems		6 000			6 000	6 000
Launching workshop		10 000			10 000	10 000
Database presentation workshop		10 000			10 000	10 000
Miscellaneous data base related administrative expenses		5 000	5 000	5 000	15 000	5 000
TOTAL DATA BASE MANAGEMENT (Component B)		**76 000**	**5 000**	**5 000**	**86 000**	**76 000**
Other WOP initiatives						
E) Nigeria WOP Special initiative	5	**68 000**	**68 000**	**68 000**	**204 000**	**0**
F) WSS services for the urban poor	6	**102 000**	**144 840**	**122 400**	**369 240**	**0**
G) MIS and PIP development	7	**119 000**	**217 600**	**224 400**	**561 000**	**0**
Overall Total		**741 880**	**780 920**	**586 280**	**2 079 080**	**490 000**

* Component A will be implemented within 18 months (year 1 and 2)

** Component B will be implemented within12 months, (year 1)

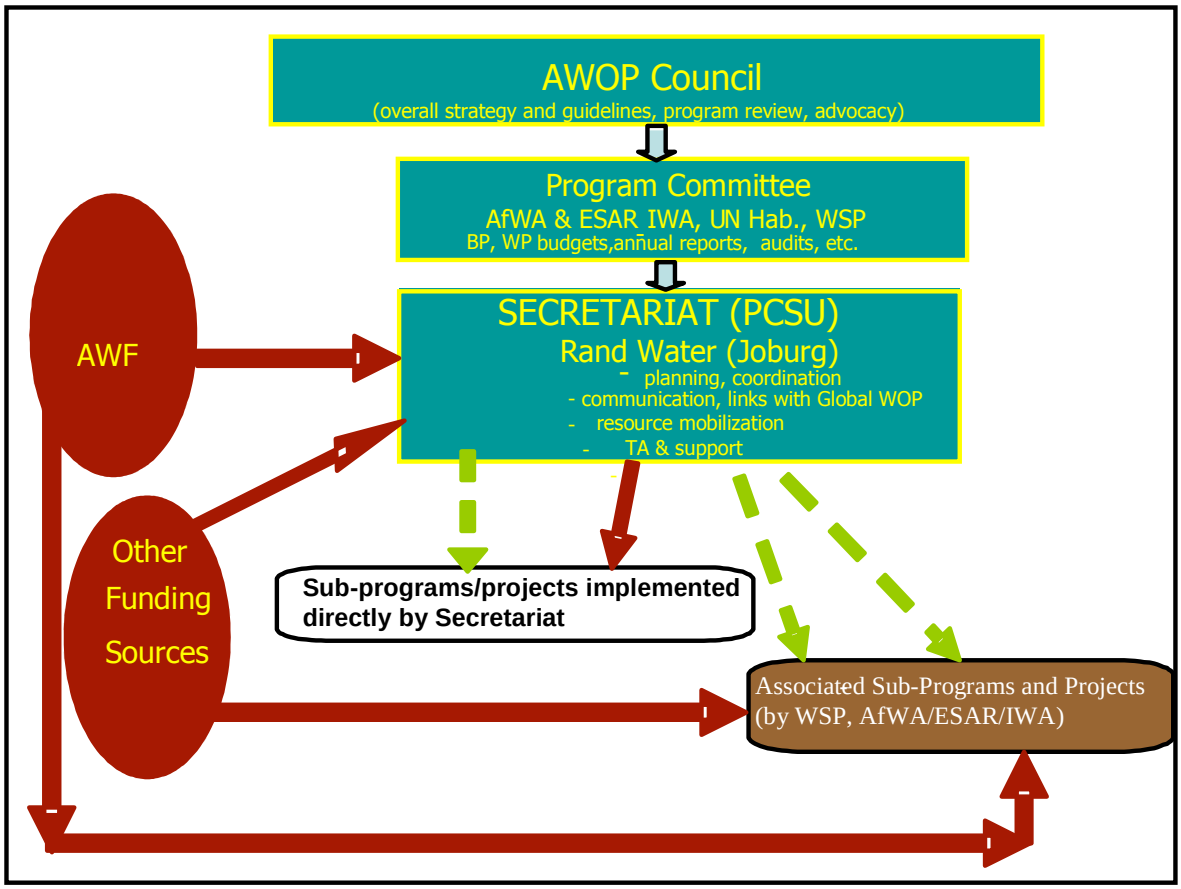
Notes and Breakdown of Costs

Note	Description/activity cost breakdown details
1	This budget covers employee related costs, administrative costs and other related start-up expenses of the WOP-Africa Secretariat; see table under Note 8 below for proportional attribution to AWF compoents; Source of funding: USAID and UN Habitat
2	Each of the 10 initial WOP initiatives under AWF funding shall involve a Performance Improvement Plan for a results-based partnership. The breakdown of average partnership support is as follows: Mentor travel costs - 7 trips @ € 500 - € 3 500; Mentee travel costs - 7 trips @ € 500 - € 3 500; Accommodation of visitors - € 10 000; Rapid impact evaluation by local consultant - € 3 000. Contingency (physical and price variation, including workshops under note 3) - € 22 000. Funded by AWF.
3	At 3 stages workshops will be organised for French and o ne for English speaking participants. Workshops shall allow for group discussions and sharing of experiences, which is another practical form of initiating partnerships and process benchmarking. The breakdown of costs per workshop (€ 32 000) is as follows: TA for module preparation (10 man-days @ 300) - € 3 000; Resource persons (4 nos for 5 days including preparation of materials @ € 300) - € 6 000; Per-diem for 20 participants and 4 resource persons (at least 10 utilities per workshop at per-diem rate of € 100 for three days) - € 9 000; Air tickets for 24 people (economy class @ 500 on average) - € 12 000; Administrative expenses and incidentals - € 2 000. Contingency (physical and price variation, included under note 2). Funded by AWF.
4	This budget covers an important prerequisite for subsequent partnerships. It incorporates: The acquisition of a computer-based data management system (e.g. SIGMA software), Updating of available utility performance data (based on recent assessment) including data analysis and desk inquiries of underlying success factors/inputs to observed good performance, re-assessment of current performance data, updating on annual basis. TA fees for 60 days of TA per year @ 250 Euros/day, TA per diems for 60 days of TA per year @ 100 Euros/day). Launching and database presentation workshops combined with AfWA STC meeting. Funded by AWF.
5, 6, 7	Funding to be sought.

8

Activity Description	Year 1	Year 2	Year 3	TOTAL
	Euros	Euros	Euros	Euros
Program Coordination				
Salaries + benefits (working time = 50 %)	40'800	40'800	40'800	122'400
Work related travels	27'200	40'000	40'000	107'200
Secretariat Operating costs	16'320	16'320	16'320	48'960
Recruitment expenses				
Accountability books keeping	8'160	8'160	8'160	24'480
RC and PC meetings	20'400	20'400	20'400	61'200
TOTAL PROGRAM COORDINAT.	**112'880**	**125'680**	**125'680**	**364'240**

ANNEX 2 – ORGANISATION, STAFFING AND MANAGEMENT TEAM



ANNEX 3 –
SUMMARY OF PERFORMANCE IMPROVEMENT PRIORITIES FROM AFRICA UTILITY ASSESSMENT

Overview

A number of water utilities in Africa completed a self-assessment of their internal strengths and weaknesses using a comprehensive utility self-assessment questionnaire (USAQ) adapted from the IB-NET and SEAWUN assessment tools. The data covers the year 2006 and the report was published in 2009. The assessment covered two dimensions: (i) assessment of performance, strengths and needs; and (ii) assessment of the potential for peer-support partnerships between water operators in Africa. The USAQ contained both quantitative and qualitative questions relating to:

- Utility profile: type of services provided and institutional set-up;
- Technical information: service area/coverage, consumption and production;
- Operations: billings and collections, operating expenses (OPEX,) service continuity, metering, monitoring and evaluation, benchmarking and performance improvement planning;
- Human resources: staffing and training;
- Customer care: customer complaints/procedures and continuity of services;
- Pro-poor service delivery: connection fees and tariffs, pro-poor service options and strategies;
- Infrastructure and asset management: sources of raw water, treatment methods, production capacity, network information, and capital investment;
- MDGs roadmap: reforms, long-term planning and financing, and potential areas for partnerships; and
- Previous experience with utility partnerships: context, areas covered, financing and contractual arrangements.

Scope and limitations

The primary objective of the USAQ was to uncover potential partnerships between utilities by identifying the areas in which each operator is performing well *(strengths)* and areas in which the operator is not performing well as compared to its peers *(weaknesses)*.

Although the assessment largely utilized the USAQ data, actual performance data was obtained from multiple sources including databases maintained by the International Benchmarking Network for Water and Sanitation Utilities (IB-NET) and national regulators. Filling out the questionnaire was the entry point for each utility to participate in the sub-regional workshop and the WOP-Africa program. Out of a total 156 utilities who were given questionnaires, more than half (99 utilities) responded. Table 1.1 shows the number of participating utilities and the sources of data.

Overall, the assessment includes data from 134 water operators in 35 countries. The majority (99) submitted data through the USAQ. All data was checked for accuracy, completeness and reliability. Questionable values and data gaps were rectified through follow-up communications with focal persons within each participating utility. In addition, data and findings of the assessment were presented at three utility sub-regional workshops held in Kampala, Dakar and Maseru to validate its accuracy and reliability.

Some limitations of this exercise should be noted. First, the analysis presented in this report is based on data for a single year providing only a snapshot of performance. The limited availability of reliable utility performance data across the region presents a significant challenge to any benchmarking exercise that seeks to establish trends in performance. There is hardly any comprehensive assessment of performance by which inter-utility comparisons can be made over time. While the

USAQ tool itself was comprehensive, many utilities do not have the supporting information systems to easily and accurately respond to the questionnaire.

Secondly, indicators tend to portray an incomplete picture of a utility's performance as they often exclude other contributing factors such as accountability of institutions and incentives that are not readily quantifiable. Moreover, utilities face different social, political and financial constraints which need to be taken into account when evaluating performance. For these reasons, the indicators presented in this assessment should be taken only as indicative of the strength or weakness of a utility relative to its peers.

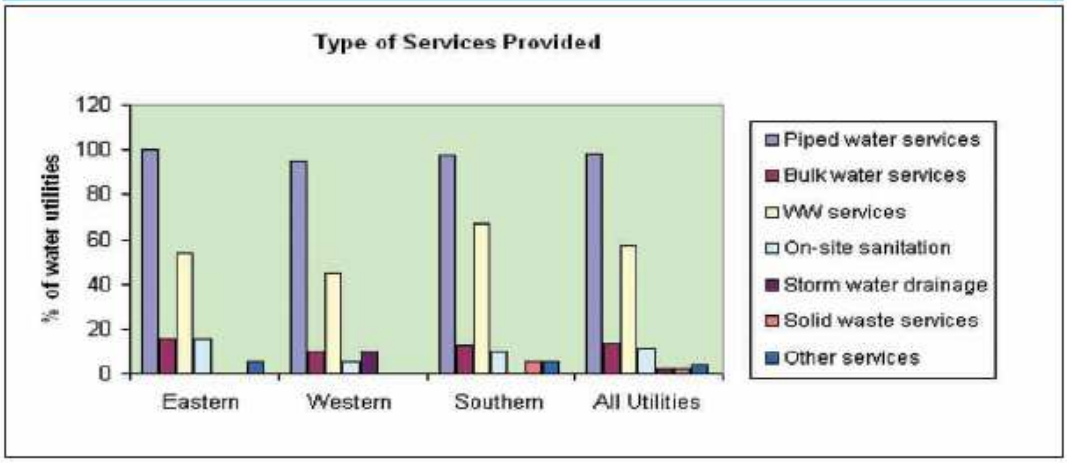
Table 1.1: Number of participating utilities and sources of data

Sub-Region	Data Sources			
	USAQ	IB-NET	Regulator	Totals
Eastern	32	2	9	43
Western	49	1	0	50
Southern	18	23	0	41
Totals	99	26	9	134
USAQ Response				
Total Sent	156			
Total Returned	99			
Response rate (%)	63			

Participating Water Utilities

The self-assessment exercise covers a broad spectrum of water utilities in Africa. Table 1.2 shows the number of utilities represented by region and by country. In total, 35 countries are represented. A summary of the type of services provided by the utilities is shown in Figure 1.1.

Figure 1.1: Type of services provided

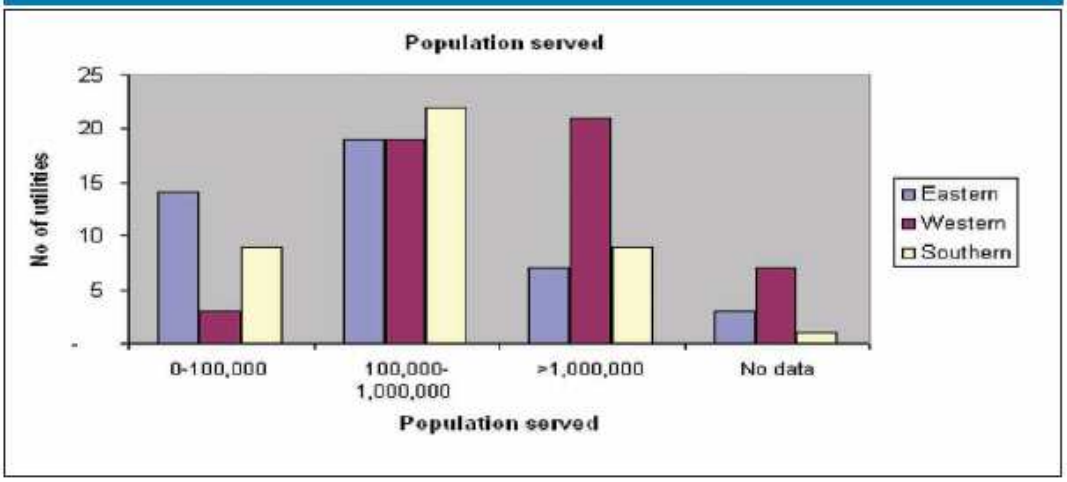


Almost all utilities (97 percent) provide piped water services. Of these, about 20 percent also provide bulk water to other utilities. About half (44 percent) of utilities provide both water and wastewater services while 42 percent provide water only. The Southern region has the highest number of utilities

(68 percent) providing wastewater services. Only one utility in the sample (ONAS, Senegal) provides wastewater services only.

In terms of population served there is a marked regional variation in the size of utilities (Figure 1.2). Small utilities (serving <100,000 people) are to be found predominantly in the Eastern region while medium size utilities (serving 100,000-1,000,000) are common in the South. Most of the large utilities (>1,000,000) are in the Western region where the urban water sector is largely centralised. 68 utilities serve single cities/municipalities, 39 utilities operate at the regional level and 25 utilities operate at the national level. Single city utilities are to be found predominantly in the Eastern and Southern regions.

Figure 1.2: Regional variation in population served (2006 figures)



The sample also included two asset holding companies - DAWASA (Tanzania) and SPEN (Niger). The institutional structures of the utilities have significant implications on the operator's decision-making autonomy. 49 utilities are state owned enterprises operating under commercial law, mainly in the Eastern sub-region. 24 utilities operate as statutory organisations following state requirements. The sample also includes 15 ring-fenced government/municipal departments, five privately owned companies operating under commercial law and three asset holding companies.

Institutional models involving private sector participation (PSP) are limited. 71 utilities do not have any form of private sector participation. 39 utilities (29 percent) have some sort of private sector involvement in their operations through service contracts, while only seven utilities (5 percent) have more elaborate PSP models.

On the other hand, 43 percent of the utilities operate under performance contracts with central or local governments. This arrangement is particularly common among utilities in the Eastern region where 60 percent of utilities have performance contracts. Performance contracts exist in utilities in Uganda, Zambia, Lesotho and Swaziland. The contracts have an average duration of five years and cover technical performance, service indicators, efficiency and financial indicators, as well as human resources issues.

Third party monitoring and oversight is present in 58 percent of the utilities, suggesting that serious attention is being paid to enhancing accountability. However, effective implementation of performance contracts depends on how internal incentive mechanisms are established. Utilities such as SDE (Senegal) and NWSC (Uganda) have performance-based management systems and enforce penalties for poor performance. Given their attractiveness as instruments for driving improvements in utility performance, performance-based contracts are becoming increasingly popular in the African water sector. Their design and implementation is a promising area for knowledge sharing and learning between utilities.

Overall, the above comparison of services, institutional set-up and size of utilities shows that the assessment exercise covers a broad spectrum. The exercise provides tremendous opportunities for learning.

The 134 covered water utilities are compared in the following chapter on the basis of selected performance indicators to identify promising areas for learning and peer-support partnerships.

Table 1.2: Number of participating utilities by region and country

Region	Countries	No. of utilities
Eastern	Burundi	1
	Democratic Rep. of Congo	1
	Djibouti	1
	Ethiopia	6
	Kenya	7
	Madagascar	1
	Rwanda	1
	Seychelles	1
	Sudan	3
	Tanzania	20
	Uganda	1
Total Eastern	11	43
Western	Benin	1
	Burkina Faso	1
	Cape Verde	1
	Cote d'Ivoire	1
	Gabon	1
	Gambia	1
	Ghana	1
	Liberia	1
	Mali	1
	Mauritania	1
	Niger	1
	Nigeria	34
	Republique De Guinee	1
	Senegal	2
	Togo	1
	Tunisia	1
Total Western	16	50
Southern	Lesotho	1
	Malawi	4
	Mauritius	1
	Mozambique	5
	Namibia	3
	South Africa	18
	Swaziland	1
	Zambia	8
Total Southern	8	41
	Total Africa	**134**

Table 1.3: List of largest utilities by population		
	10 Largest Utilities (By population served – 2006 data)	
1	Rand Water (South Africa)	11,000,000
2	Ghana Water Company Limited (Ghana)	9,361,760
3	Société Nationale d'Exploitation et de Distribution des Eaux (SONEDE, Tunisia)	8,300,000
4	Société de Distribution d'Eau de Cote d'Ivoire (SODECI, Cote d'Ivoire)	6,342,072
5	Lagos Water Corporation (Nigeria)	5,573,855
6	eThekwini Metro (South Africa)	4,134,679
7	Sénégalaise des Eaux (Senegal)	3,823,460
8	Johannesburg Water (South Africa)	3,692,323
9	Cape Town Metro (South Africa)	3,229,503
10	Nairobi Water & Sewerage Company (Kenya)	3,000,000

Results

The selected indicators shown in Table 2.1 allow the assessment of different performance aspects. All quantitative indicators are based on standard IB-NET definitions, and the base data used is for a single year (2006). Performance profiles of utilities on these indicators were derived from basic data provided by the utilities themselves and computations. The performance of any utility in this sample was only compared with those of other participating utilities and no objective norm, national or international standard.

This means that if all utilities in the group[1] performed exceptionally, then even the lowest in the group cannot be said to be poorly performing. Similarly, if the entire group performed poorly, then even the top in the group cannot be said to be a good performer. A reasonable target for improving utility performance is the lowest value within the top quartile (i.e. the top 25 percent). During the sub-regional workshops, utility managers discussed these targets and agreed that they were achievable in the African context.

Individual participating utilities can compare their performance against the group average. But as earlier suggested a better target for improving performance would be to move up within the top quartile of the group. The mean values are compared with those from other regions in order to determine how this sample of African utilities is faring in comparison to utilities elsewhere. IB-NET data were used to compute the average values of key indicators for utilities from East and Central Asia (ECA), Latin America and the Caribbean (LAC), and East Asia and the Pacific (EAP).

Another way of ensuring meaningful comparisons between water utilities is by use of an overall efficiency indicator (OEI). This indicator attempts to provide a global measure of utility efficiency by comparing the volume of water for which the utility collects revenue and the total volume of water it produces. The OEI is intuitive, and although not entirely perfect, provides a good indication of the overall position of a utility, allowing us to make overall conclusions on performance.

The presentation of results in the following sections is organised according to the themes and performance categories shown in Table 2.1. A number of graphs are presented with the top quartile (top 25 percent) values marked for each indicator, where appropriate, and also taking into account

[1] Utilities were grouped into geographical sub-regions (Eastern, Western and Southern). The reason for this was to encourage utilities to look within their sub-region for a partner - and only look outside the sub-region if there are no "good performers". This is because of the high cost implications of travel in Africa.

the nature of the indicator (e.g. for NRW percent and staff productivity, the lower quartile is used as lower values indicate good performance). In addition, while the top quartile values for most indicators represent the suggested cut-off point for identifying strong and weak performance, this cut-off point may not be appropriate for all indicators. For example, the top quartile may not be a relevant target for per capita consumption - as very high values may indicate wasteful use of water while very low values may point to insufficient availability of water for basic public health.

Table 2.1: Selected indicators used for comparative performance assessment

WOP-Africa Theme	Performance Category	Indicators
Operational Performance and Management Information Systems (MIS)	Technical performance	1. Service coverage 2. Water production and consumption 3. Non-revenue water
	Financial performance	4. Average tariff and unit operational cost 5. Collection ratio 6. Collection period 7. Operating cost coverage
	Quality of MIS	8. % of USAQ response
Human Resource Development and Capacity Building	Human resource utilisation	9. Total staff per 1000 connections 10. Labour cost as a % of total operating costs
	Human resource development	11. Staff training participation rate 12. Total no. of training days
Customer Care and Services to the Poor	Customer service	13. No. of customer complaints per1000 connections 14. Continuity of supply (hours of service) 15. Average response time to address a complaint
	Affordability of services	16. Average per capita water bill as a % of GNI per capita 17. Monthly household bill for HH consuming 6m3 per month as % of monthly GNI per capita 18. Water connection charge as % of GNI per capita
Infrastructure Development	Capital investment	19. Capital expenditure in last 5 years (per connection)

Technical performance

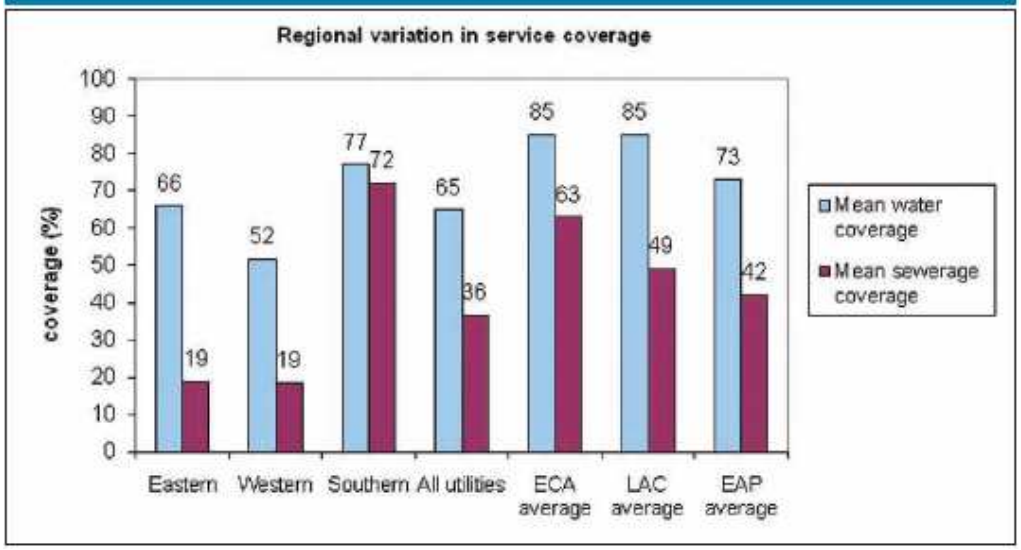
Technical performance was assessed using three key indicators:

- coverage - the percentage of the population with access to water or sewerage services as a percentage of the total population under a utility's area of responsibility
- water production and consumption - both expressed by population served per day
- metering level - number of connections with operating meter as a percentage of total connections
- non-revenue water - the difference between water supplied and water sold (i.e. volume of water 'lost') expressed as a percentage of net water supplied

Coverage: This is a key indicator but its assessment is affected by whether the population data is up to date and accurate. A total of 118 utilities provided fairly credible base data for water coverage, while base data for sewerage was available for only 38 utilities out of the 59 utilities that provide sewerage services.

Figure 2.1 shows the regional averages and the average for all utilities in the sample. Utilities from Southern region have on average the highest coverage for both water and sewerage. But sewerage coverage lags behind water in all regions. For the Western region, the mean value is based on data from only five utilities, i.e. ONAS (Senegal); LWSC (Liberia); ENSWC (Enugu State, Nigeria); ANWSC (Anambra State, Nigeria); and SODECI (Cote d'Ivoire). Data presented in Figure 2.1 also show that Africa lags behind other world regions (ECA, LAC and EAP) in service coverage.

Figure 2.1: Regional variation in service coverage



Based on the water and sewerage coverage levels of the top 25 percent of all the utilities, a reasonable cut-off point for identifying strong and weak performers is 90 percent for water and 82 percent for sewerage. With these levels, the Southern region has the largest number of best performers for both water and sewerage coverage - the majority being South African utilities. A few utilities from the Eastern region - MBUWASA (Mbeya, Tanzania), AAWSA (Addis, Ethiopia), TUWASA (Tanga, Tanzania), PUC (Seychelles), MUWASA (Moshi, Tanzania), MWAUWASA (Mwanza, Tanzania) IRUWASA (Iringa, Tanzania), and ELECTOGAZ (Rwanda) - are also part of the best performer group for water coverage, while SDE (Senegal), SODECI (Cote d'Ivoire), and JSWB (Nigeria) are the only utilities from the Western region making it to the best performer group for water coverage.

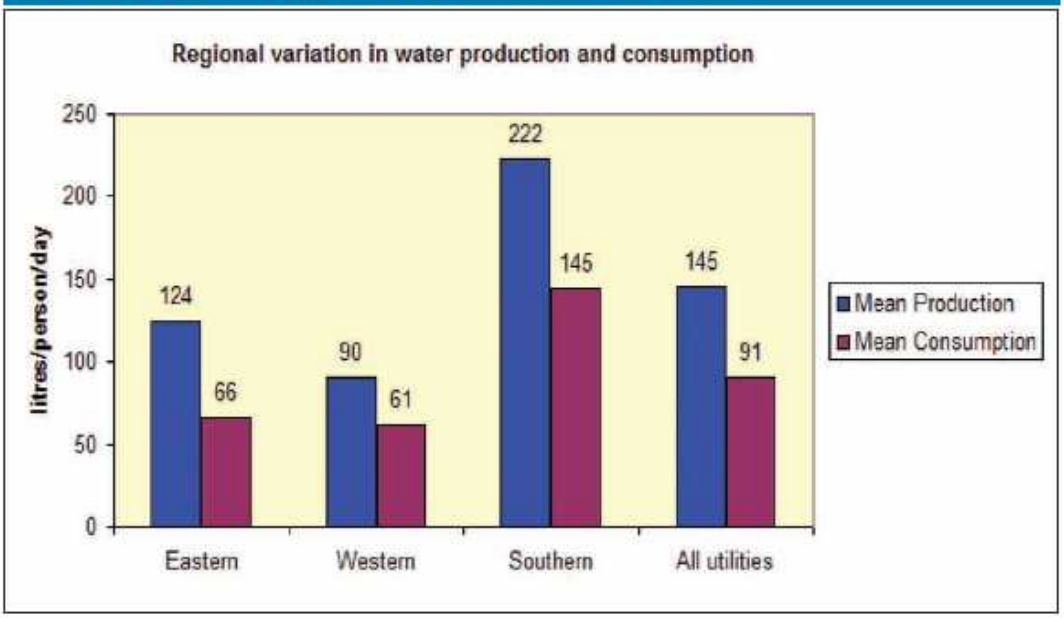
None of the utilities in the Eastern and Western region can be considered good performers on sewerage coverage. The highest sewerage coverage reported in the Eastern region is 44 percent (MUWASA, Moshi Tanzania) and some utilities in the Western region such as SODECI (Cote

d'Ivoire) and ANWSC (Anambra State, Nigeria) report the lowest sewerage coverage levels in the entire sample.

It should be noted however that the USAQ focused on water-borne sewerage. It did not capture data regarding on-site sanitation even though the majority of Africa's urban residents rely on on-site solutions such as pit latrines and septic tanks. Future benchmarking exercises should include questions on the institutional arrangements for on-site sanitation including whether or not the utility has the mandate to empty on-site facilities, the cost of providing such services and information on partnerships with the private sector.

Water production and consumption: Production and consumption data was available for a total of 113 and 94 utilities respectively. Figure 2.8 shows the regional summary. In Southern utilities, the average volume of water produced is about 222 litres per capita per day for each person resident in the service area. This indicates that there is already enough water available to provide a reasonable level of consumption if the distribution networks could be expanded to cover the entire population. In contrast, utilities in the Eastern and Western regions have respectively only 124 and 90 litres per capita per day available even just for those customers who are already connected to the system. These utilities will need to invest both in water production capacity and water distribution networks in order to reach universal coverage.

Figure 2.8: Regional variation in water production and consumption



The overall average consumption works out at a fairly modest 87 litres per capita per day, compared to an average of 237 litres reported in ECA; 203 litres in LAC and 140 litres in EAP. For utilities where customers are almost 100 percent metered, total consumption can be calculated quite accurately. For utilities relying on estimates, it can be quite difficult to determine true consumption and unaccounted for water.

Estimates of production and consumption levels for individual utilities show that almost all utilities in the Southern region (except two - NWWSSL, Zambia and LWB, Malawi) have more than 100 litres per capita per day of water production available for the entire service area. At the other end of the spectrum, seven utilities (SWC-Nyala, Sudan, DDWSSA-Ethiopia, LWSC-Liberia, JTWSSSE-Jimma, Ethiopia, TdE-Togo, SEG-Guinea and PSWB-Plateau State, Nigeria produce less than 50 litres per capita per day for their currently served population. Consumption data seems fairly comparable, although some South African utilities are reporting high per capita consumption (>200 lpd).

In this case, utilities should aim to achieve the middle ground where customers have enough water available to support daily needs but consumption should not be so high as to be wasteful. The median value for all utilities is 76 lpd. Overall, there is no evidence of wasteful over-use of water in

the sample of utilities assessed, nor that current, relatively modest levels of consumption could be further reduced by more aggressive use of demand management tools. However, while water use by the end-user can be characterised as modest, a substantial volume of water is lost during the distribution process.

Metering level: The metering of customers is considered good practice. It allows customers to influence their water bills and provides utilities with tools and information to allow them to better manage their systems. A total of 75 utilities provided fairly credible data on metering practices. Southern and Western utilities have slightly higher than average levels of metering coverage.

Based on the metering levels of the top 25 percent of all the utilities 100 percent metering is a reasonable target for utilities to achieve. With this level of metering, we can identify a total of 24 best performers - 14 in the Southern region, seven in the Western region and three in the Eastern region. Lack of universal metering is indeed a big problem for utilities in the Eastern region. Almost half of the Eastern utilities in the sample have less than 75 percent meter coverage, implying that utility managers in the region may not be fully in control of their systems. On the other hand, metering is relatively widespread in the Western and Southern regions with almost half of utilities in these regions reporting 100 percent coverage.

Non-revenue water: Non revenue water (NRW) represents water that has been produced and is 'lost' before it reaches the customer (either through leaks, theft or through legal usage for which no payment is made). This indicator captures not only physical losses but also commercial losses due to inefficient billing or illegal connections. Thus high levels of NRW may indicate poor system management and poor commercial practices as well as inadequate network maintenance.

Data shows little regional variation in the NRW levels. The average level of NRW in the entire sample is 36 percent, and well above the good practice levels for developing countries considered to be below 23 percent according to Tynan and Kingdom (2002). This is not to suggest that the NRW problem is an African problem. Utilities in other world regions report similar levels of NRW (an average of 39 percent for EAC and LAC and 36 percent for EAP) suggesting that NRW is indeed a global problem.

Table 2.2: Best performing utilities in all NRW categories

Best Performers in NRW Management					
	Utility name	Region	NRW (%)	NRW (m^3/km/day)	NRW (m^3/conn/day)
1	Saldanha Bay (South Africa)	Southern	5	1.29	0.07
2	CWWS (Windhoek, Namibia)	Southern	11	4.26	0.14
3	Drakenstein (South Africa)	Southern	12	8.13	0.10
4	Potchefstroom (South Africa)	Southern	13	11.24	0.18
5	SEEN (Niger)	Western	17	7.90	0.22
6	ONEA (Burkina Faso)	Western	18	4.80	0.18
7	SDE (Senegal)	Western	20	9.30	0.16
8	TdE (Togo)	Western	20	5.20	0.19
9	TUWASA (Tanga, TZ)	Eastern	21	12	0.3
10	SODECI (Cote d'Ivoire)	Western	23	8.50	0.18
11	SONEDE (Tunisia)	Western	23	6.60	0.14
12	Mogale (South Africa)	Southern	25	7.62	0.16
13	Matjhabeng (South Africa)	Southern	25	11.8	0.18

Based on the levels of NRW of the top 25 percent of all utilities, reasonable cut-off points for identifying strong and weak performers are 25 percent, 12 m3/km/day, and 0.3 m3/conn/day of NRW respectively. Using these values, 27 best performing utilities can be identified under the percent NRW sub-category, 22 under the NRW m3/km/day sub-category, and 31 under the NRW m3/conn/day sub-category. However, only 13 utilities (6 Southern, 6 Western and 1 Eastern) belong to all three groups (see Table 2.2). These utilities can therefore be regarded as the 'pack leaders' on NRW management as they appear to be doing well in controlling NRW levels across the board. Utilities in the Eastern region generally perform poorly on NRW management.

Financial performance

Financial performance was assessed using the following key indicators:

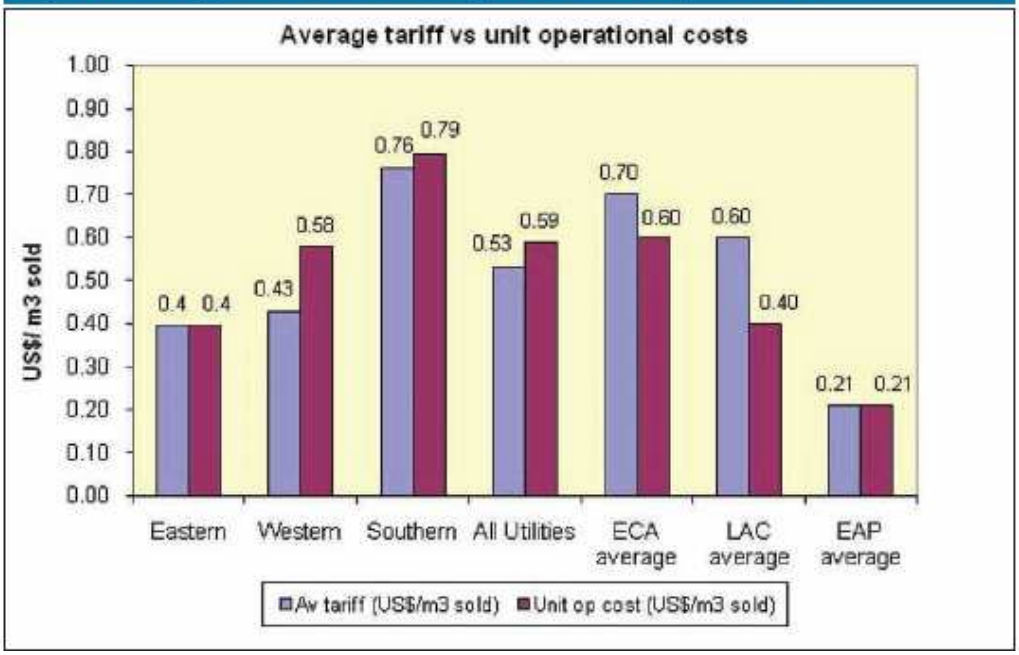
- average tariff per m^3 sold - the ratio of total annual billed revenue to water consumption (volume of water sold). Direct revenue is the actual amount billed for water services. Domestic, commercial and industrial revenue is included but bulk water revenue is excluded. Revenue from other sales, sundry income or interest received is excluded as are direct revenue subsidies;
- unit operating cost per m^3 sold - the ratio of total annual operating expenses to volume of water sold;
- operating cost coverage ratio (OCCR) - the ratio of total annual billed revenues to operating costs (excluding interest and depreciation);
- collection ratio - the ratio of revenues collected to billed revenues, expressed as a percentage;
- collection period - accounts receivables as a share of annual revenues, in days or months.

Average tariff, unit operating costs and operating cost coverage: The average tariff is notional and not the same as the actual tariff charged (which may include tariff bands and different tariffs for domestic and industrial customers). Utilities should be aiming to provide a good service to customers while keeping charges as low as possible. Unit operational costs per cubic metre sold reflect the cost of providing water at the customer take off point while operating cost coverage ratio (OCCR) is a key measure of the utility's ability to cover its operating costs (excluding interest and depreciation) from revenues, without reliance on external subsidies. Taken together, these three indicators give insight into the financial discipline of a utility, its ability to cover operational costs with revenues from tariffs and the general commitment to pursue a commercial approach to the provision of a public service.

Base data for the average tariff and unit operating cost indicators was available for 91utilities in the sample. Figure 2.29 summarises the regional variations in average tariff and unit operating costs. On average, all participating utilities are barely able to cover operational costs from billed revenues. In the Eastern region, the average tariff per cubic meter of water billed ranges from US$ 0.12 (SOUWASA, Songea, Tanzania) to US$1.16 (KIWASCO, Kisumu, Kenya). The range for Western utilities is US$ 0.01(RWSB, Nigeria) to US$ 1.09 (LWSC, Liberia). In general, the highest average tariffs are to be found in the Southern region with a quarter of the sample reporting average tariffs more than US$ 1.0 per cubic meter of water billed and an average of US$ 0.76 compared to only US$ 0.4 - 0.6 elsewhere in Africa. Utilities in the Eastern region report lower operating costs compared to the other regions. The average operating cost for Southern utilities is twice that of Eastern utilities but the difference largely reflects the high cost of water in Namibia and South Africa.

An OCCR value greater than one means that revenues from tariffs cover the operating and maintenance (O&M) costs. A value of less than one indicates that a utility is not able to cover its O&M costs. An OCCR value equal to one means that a utility barely covers its O&M costs. The average OCCR value for the entire sample is just about unity, further indicating that operating costs are covered with a narrow margin that certainly falls well short of what is needed to recoup capital expenditures. Based on the performance of the top 25 percent of the sample of utilities, a reasonable OCCR target for identifying best performers is 1.2 - slightly lower than the benchmark level of 1.5 for developing countries as proposed by Tynan and Kingdom (2002). Based on this criterion, only 20 utilities (out of the 91) can be considered good performers - 8 from the Southern region, 6 from the Western and 6 from the Eastern region.

Figure 2.29: Regional variation of average tarriff vs. Unit operational costs



It should be noted that the calculation of OCCR values above was based on billed revenues rather than actual collections. **When actual collections are used** in the calculation the result changes dramatically. The **average OCCR** for the entire sample **drops** from unity **to** just about **0.8**, suggesting that without improvements in collections, utilities will continue to struggle to meet their operating costs. Individual utility data is even more revealing. In the Eastern region, with the exception of MWSC (Mombasa, Kenya), NWSCO (Nairobi, Kenya) and DDWSSA (Dire Dawa, Ethiopia), all the other utilities fail to cover their operating costs. Moreover, if we consider the benchmark OCCR value of 1.2, all the utilities previously considered good performers would lose their places in the group.

Similarly, in the Western region, only three utilities - SDE (Senegal), GWCL (Ghana) and SONEB (Benin) - would be able to meet their O&M costs, but only SDE (Senegal) and SONEB (Benin) maintain their place in the best performer group. In the Southern region, five utilities - CWA (Mauritius), WASA (Lesotho), Midvaal, Saldanha Bay and Stellenbosch (South Africa) - would meet their operating costs from collected revenues. However, of the eight utilities previously considered good performers, only CWA and Midvaal would maintain their place in the group. The rather obvious conclusion is that **without improving collections most utilities struggle to stay afloat**.

The results also seem to suggest that utilities do not necessarily need to increase tariffs to improve financial viability. Putting more effort in **improving collections and reducing losses** can be just as effective and **could be the initial step** utilities need to take **towards financial viability**. The next sub-section examines the performance of utilities on key collections indicators.

Collection ratio and collection period: These indicators, along with average tariff and operating cost coverage ratio, impact on the financial health of a utility. Poor collection efficiency is mostly blamed on customers but the utility may also be at fault for delayed and faulty billings, inadequate responses to consumer queries on billings, poor customer service and a lukewarm effort to collect overdue accounts.

A total of 78 utilities had usable base data for calculating collection ratios but only 68 utilities had data on accounts receivables. On average, **utilities are only able to collect about 73 percent of their billed amounts, and it takes an average of eight months to collect outstanding revenues**. There is little variation in average performance between regions. ECA and EAP utilities report average collection ratios of 88 and 89 percent and collection periods of seven and eight months, respectively.

Based on the collection indicators of the top 25 percent of all utilities, reasonable cut-off points for identifying strong performers are 93 percent for collection ratio and 3 months for collection period. The target for collection period is consistent with the best practice level for developing countries as proposed by Tynan and Kingdom (2002). A few utilities report collection ratios of over 100 percent - which may reflect a drive to collect arrears from earlier periods.

For purposes of identifying strong and weak performers the two indicators - collection ratio and collection period - should be examined together. Only one utility (HWSSSA, Harar Ethiopia) in the Eastern region then emerges as a strong performer on collections. However, even at this level of performance on collections, the utility barely covers its operating costs. In such a case, an increase in tariff above the current level (average US$ 0.26) might be warranted. Similarly, in the Western region, only SDE (Senegal) would be considered a good performer based on collections indicators as it collects 99 percent of its billed revenues in under three months. The good performers on collections in the Southern region are Bloem Water (S. Africa), Stellenbosch (S. Africa) and NRWB (Mzuzu, Malawi).

The review undertaken during the regional workshops showed that **in many countries public sector entities accounted for a significant part of uncollected bills**. This emerged as a systemic issue requiring structural reform related to: (i) who has their water paid for by the State, (ii) how payment for water bills is provided for in state budgets, (iii) whether payments are made off the top from treasury or left to the discretion of the entities; and (iv) who has the authority to disconnect delinquent accounts. The workshops showed that **all successful reformers had tackled these issues and there was significant demand for knowledge exchanges on this subject**.

Overall efficiency indicator

Partial looks at different parameters and aspects of operational performance show that many utilities perform well on some indicators and worse on others. It is however difficult to reach an overall conclusion on their performance. One way of providing a global indication of utility efficiency is to compare the volume of water for which the utility collects revenue and the total volume it produces. This comparison leads to a formulation of an overall efficiency indicator (OEI) given as: [(1 - NRW) * Collection ratio] in percentage. A total of 78 utilities had data to enable the calculation of OEI. The results clearly show the extent of inefficiencies in African water utilities. On average, all utilities in the sample get revenue for only 52 percent of the water they produce. Eastern utilities perform slightly worse than the other two regions, because of the generally higher levels of water losses in the region.

In the Eastern region OEI ranges from as low as 7 percent (KWSC, Khartoum, Sudan) to 83 percent (Welkite, Ethiopia). Based on the performance of the top quartile of all utilities, a reasonable target for OEI for this sample is 66 percent; utilities should be able to get revenue for at least 66 percent of the water they produce. This is the efficiency achieved by the top 25 percent of all utilities in the sample. Based on this criterion, only 20 utilities (out of 78) can be considered efficient overall. The Eastern and Southern regions are each represented by six utilities in this group (Welkite ET, Tanga, Dodoma, Mwanza, Morogoro and Moshi TZ), while the Western region is represented by eight utilities (ONEA Burkina Faso, SDE Senegal, SEEN Niger, SNDE Mauritania, ODWC Nigeria, EDM Mali, ISWC Nigeria, SONEB Benin). These results point to the need for utilities to significantly reduce NRW levels and also improve their collection efficiency.

ANNEX 4 – MARKETPLACE RESULTS

The marketplace results are from three subregional meetings held in 2008.
Utilities had the opportunity define learning priorities (demand) and offer expertise (supply).
The results of the performance assessment have been reduced to reflect the areas with highest impact on the most critical parameters.
(See Annex 3.)

MARKETPLACE: TECHNICAL			
Supply & Demand	Country	Utility/organization	Request/offer
DEMAND	DRC	REGIDESO	NRW Management
	Ethiopia	Mekelle	NRW Management
	Kenya	NWSCO	NRW Management
	Kenya	Kisumu Water and Sewerage Co	NRW Management
	Kenya	ELDOWAS	NRW Management
	Sudan	Khartoum State Water Corporation	NRW Management
	Tanzania	Mbeya	NRW Management
	Tanzania	Shinyanga	NRW Management
	Tanzania	Mtwara	NRW Management
	Tanzania	Moshi	NRW Management
	Tanzania	IRUWASA	NRW Management
	Tanzania	Mwanza	NRW Management
	Uganda	NWSC	NRW Management
	Zambia	Southern Water and Sewerage Co	NRW Management
	Zambia	Lusaka Water and Sewerage Co	NRW Management
	Zambia	KWSC	NRW Management
	Regional	NETWAS	Demand management/district metering
	Tanzania	Lindi	Demand management/district metering
	Uganda	NWSC	Demand management/district metering
	Zambia	KWSC	Demand management/district metering
	Tanzania	DAWASCO	Meter Management
	Uganda	NWSC	Meter Management
	Zambia	Lusaka Water and Sewerage Co	Network Management
	Ethiopia	Mekelle	Asset Management
	Tanzania	Tanga	Asset Management
	Tanzania	Mbeya	Operations Management
	Ethiopia	Mekelle	Static Plant Maintenance

MARKETPLACE: COMMERCIAL AND FINANCIAL MANAGEMENT			
Supply & Demand	Country	Utility/organization	Request/offer
DEMAND	Kenya	Kisumu Water and Sewerage Co	Static Plant Maintenance
	Ethiopia	Mekelle	Block Mapping
	Kenya	Naivasha Water and Sewerage Co	Block Mapping
	Sudan	Khartoum State Water Corporation	Block Mapping
	Tanzania	IRUWASA	Block Mapping
	Tanzania	Zanzibar	Project Management
	Ethiopia	Mekelle	Quality Assurance
	Kenya	Kisumu Water and Sewerage Co	Quality Assurance
	Tanzania	Mbeya	Quality Assurance
	Kenya	Naivasha Water and Sewerage Co	Investment Planning
SUPPLY	Kenya	Malindi Water and Sewerage Company	NRW Management
	Tanzania	Tanga	NRW Management
	Kenya	Malindi Water and Sewerage Company	Meter Management
	Uganda	NWSC	Network Management
	Uganda	NWSC	Operations Management
	Uganda	NWSC	Static Plant Maintenance
	Uganda	NWSC	Block Mapping
	Uganda	NWSC	Project Management
	Tanzania	DAWASCO	Quality Assurance
	Uganda	NWSC	Quality Assurance
	Uganda	NWSC	Capacity Building & Training
	Regional	NETWAS	Capacity Building & Training

MARKETPLACE: COMMERCIAL AND FINANCIAL MANAGEMENT			
Supply & Demand	Country	Utility/organization	Request/offer
DEMAND	Tanzania	Mwanza	Mobilizing resources
	Tanzania	Tanga	Mobilizing resources
	Tanzania	Shinyanga	Mobilizing resources
	Tanzania	RUWASA	Billing system/database cleanup
	Tanzania	Shinyanga	Billing system/database cleanup
	Zambia	KWSC	Billing system/database cleanup
	Zambia	Lusaka Water & Sewerage Co	Billing system/database cleanup
	Zambia	Southern Water and Sewerage Co	Billing system/database cleanup
	Ethiopia	Mekele	Revenue Collection/Debt management
	Kenya	Malindi	Revenue Collection/Debt management
	Tanzania	Lindi	Revenue Collection/Debt management
	Tanzania	Moshi	Revenue Collection/Debt management
	Zambia	KWSC	Revenue Collection/Debt management
	Zambia	KWSC	Outsourcing revenue collection
	Ethiopia	Mekele	Financial management
	Tanzania	RUWASA	Financial management
	Tanzania	Lindi	MIS
SUPPLY	Kenya	NWSCO	Billing system/database cleanup
	Tanzania	DAWASCO	Billing system/database cleanup
	Uganda	NWSC	Billing system/database cleanup
	Uganda	NWSC	Revenue Collection/Debt management
	Sudan	Khartoum	Outsourcing revenue collection
	Uganda	NWSC	Financial management
	Uganda	NWSC	MIS
	Uganda	NWSC	Tariff Policy Analysis